

**FUNDAMENTAL CONCEPTS IN  
NURSING PRACTICE  
(Direct entry)**

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# Course outline

This course presents the theory and concepts that a person studying nursing will need to know in order to develop the knowledge and competence demanded by the complexity of the changing health care system.

It also presents theory and concepts that the practical nurse should know in order to assist in patient evaluation and function as a team leader in the health-care environment

# CONTENT

- Introduction to nursing: definition; profession; philosophy; historical development and trends globally and locally; nature of nursing; concepts and philosophy of nursing- the concept of man as a bio- psychosocial being;
- professional organizations and their roles- Nursing Council of Kenya (NCK), National Nurses Associations (NNAK), East Central South Africa College of Nursing (ECSACON), International Council of Nurses
- Basic nursing skills: abbreviations used in ,
- Interpersonal communication: communication and developing a nurse-patient relationship, interviewing skills; admission and discharge;
- Infection prevention: principles and practice;

# CONTENT (Contd)

- Personal hygiene; bathing the patient, care of the pressure areas, mouth toilet, eye swabbing, assisting patients with elimination bed making; types of beds; special appliances; positions used in nursing patients; body mechanics and range of motion;
- wound management; aseptic technique, wound dressing, simple wound closure, simple drainage, removal of stitches, injection safety, waste management, care of intravenous sites, venepuncture; specimen collection.
- Observations of vital signs: Blood Pressure, temperature, pulse.
- Patient feeding; oral and parenteral feeding.

# CONTENT (Contd)

- Drug administration: Drug dose calculation, prescription and treatment, rational use of injectable and oral drugs;
- Ward layout: e.g. sluice room, duty room, nursing desk, acute room. Ward structure; ward activities and running, e.g. unit in charge, ward in charge.
- Documentation and report writing: types, oral, written; nursing shift.
- The process of death and dying; care for the dying patient and last offices.

# DEFINITION OF NURSING

- You have chosen to be a nurse. What does it mean?

# Who is a nurse?

- A Nurse is a person who has completed a program of basic generalized nursing education and authorized by appropriate regulatory authority to practice nursing.
- The word nurse has its roots in the Latin noun nutrix which means "nursing mother", often referring to a wet nurse. The French term nourrice also referred to a woman who suckled a child.



# Definitions

- The word nursing itself is derived from the Latin nutrire "to nourish".
- The spirit of nursing has no sexual boundaries. Human beings of both sexes have a natural tendency to respond to helplessness or a threat to life from disease or injury (Donahue, 1996).

# Nursing is ?..

- The use of clinical judgement in the provision of care to enable people to improve, maintain, or recover health, to cope with health problems, and to achieve the best possible quality of life, whatever their disease or disability, until death.

# Nursing is [?].

- An intellectual, physical, emotional and moral process which includes the identification of nursing needs; therapeutic interventions and personal care; information, education, advice and advocacy; and physical, emotional and spiritual support.
- In addition to direct patient care, nursing practice includes management, teaching, and policy and knowledge development.

# Nursing is ?..

- "The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will, or knowledge and to do this in such a way as to help him gain independence as rapidly as possible.

(Virginia Henderson)

# Nursing is ?..

- Act of using the environment of the patient to assist him in his recovery.

(Florence Nightingale)

# NURSING (as a science)

- Is the scientific knowledge and skills in assisting an individual to achieve optimal health.
- It is the diagnosis and treatment of human responses to actual or potential problems

# NURSING (as an art)

- “Nursing...its very principle lies in the creative imagination, the sensitive spirit, and the intelligent understanding that provides the very foundation for effective nursing care”.  
Donahue(1985)

# Nursing is

- Nursing is caring
- Nursing is an art
- Nursing is a science
- Nursing is client-centered
- Nursing is holistic
- Nursing is adaptive
- Nursing is concerned with health promotion, health maintenance, and health restoration
- Nursing is a helping profession



# Nature of Nursing

- Unique health profession, Art and Science.
- Professional practice of caring grounded in science, technology, and knowledge.
- Focus: Individuals, families, groups, communities
- Promote health, self care, prevention of disease and disability, coping with illness, achievement of a peaceful death.
- Research, participation in shaping health policy and education.

# Purpose of Nursing

- To promote health, healing, growth and development, and to prevent disease, illness, injury, and disability.
- To minimize distress and suffering when people become ill or disabled, and to enable people to understand and cope with their disease or disability, its treatment and its consequences.
- To maintain the best possible quality of life until its end when death is inevitable.

# Domain of Nursing

- The specific domain of nursing is people's unique responses to and experience of health, illness, frailty, disability and health-related life events in whatever environment or circumstances they find themselves.
- People's responses may be physiological, psychological, social, cultural or spiritual, and are often a combination of all of these.
- The term "people" includes individuals of all ages, families and communities, throughout the entire life span.

# Focus of nursing

- The focus of nursing is the whole person and the human response rather than a particular aspect of the person or a particular pathological condition.

# Qualities and professional proficiencies of a nurse

1. Interest and willing to work and learn
2. A warm personality and concern for people.
3. Resourcefulness and creativity as well as a well-balanced emotional condition;
4. Capacity and ability to work with others;

# Nursing Profession

- An occupation with a unique body of knowledge, attitude and skills required through advanced training and experience in order to provide specialized service to society

# Education preparation for nurses in Kenya

- Certificate
- Diploma
- Higher diploma (specialization)
- Degree
- Masters
- Doctorate

# Fundamental Responsibilities of the Nurse

1. Promote health
2. Prevent illness
3. Restore health
4. Alleviate suffering
5. Promote spirituality



# Functions of a nurse

- Caregiver
- Clinical decision maker
- Patient advocate
- Case manager
- Rehabilitator
- Comforter
- Communicator
- Teacher

# Career roles

- Nurse Educator
- Clinical Nurse Specialist
- Nurse Practitioner
- Certified Nurse Midwife
- Nurse Anesthetist
- Administrator
- Nurse Scientist

# Nursing functions

- Dependent: performed under delegated supervision or prior routines
- Independent: initiated as a result of own knowledge and skills
- Interdependent: overlapping functions shared between nursing and other teams

# Nursing ethics

- Nursing is based on ethical values which respect the dignity, autonomy and uniqueness of human beings, the privileged nurse- patient relationship, and the acceptance of personal accountability for decisions and actions.
- These values are expressed in written codes of ethics, and supported by a system of professional regulation.

# A commitment to partnership:

- Nurses work in partnership with patients, their relatives and other carers, and in collaboration with others as members of a multi-disciplinary team. At all times, nurses remain personally and professionally accountable for their own decisions and actions.

# HISTORY OF NURSING

# Why Study History?

- It encourages critical reflection
- Assists in defining our professional identity.
- Connecting the past with the present allows us to catch a glimpse of the future
- It will provide cognitive flexibility that will be required for the formation and navigation of tomorrow's health care environment" (Borsy, 2009).

# HISTORICAL DEVELOPMENT IN NURSING

- Nursing began as women provided for their families' health needs.
- Documentation of the profession is available only for the last 150 years.
- The profession began as certain individuals emerged with the desire and ability to nurture others and provide for them.



# History of Nursing

- The nursing profession has developed throughout history, seeing a transformation in practice, types of caregivers, roles, and policy changes, but nursing remains a profession of caring and service to those in need.
- The earliest nurses never attended nursing school; they were often nuns or other women who provided care for the sick, poor, or homeless without family support.

# History of Nursing

- Women were frequently called in to work as midwives to help deliver babies, or as wet nurses to breastfeed.
- During the Middle Ages, early hospitals were operated by nurses who were often affiliated with religious organizations.
- Many of these institutions were places for patients to die, with nurses providing comfort during the final hours.

# History of Nursing

- In the 18th and 19th centuries, the nursing profession expanded to include care of soldiers during many prominent wars.
- In 1853, Florence Nightingale served as a nurse during the Crimean War, during which she not only cared for the injured, but set standards of cleanliness in the areas where she worked; her sanitary reforms reduced the overall incidence of infection where they were implemented.

# History of Nursing

- At the end of the 19th century, more nurses began to work toward changing policy in leadership and education in nursing schools, recognizing their role as more than that of a bedside caregiver.
- By implementing change, many nurses went beyond the scope of care to educate those in leadership about the need for prevention and to reach some groups of people that may have fallen through the cracks.

# History of Nursing

- In 1893, Lillian Wald began promoting the role of the public health nurse to help those living outside of the hospital setting; and in 1925, Mary Breckinridge started the Frontier Nursing Service to help some of the poor and destitute living in rural parts of America.
- During the 20th century, nursing continued to evolve, with the addition of new programs and professional organizations designed to specifically address some of the challenges of the nursing profession.

# History of Nursing

- Nursing programs changed to offer students new courses to become licensed practical nurses and to require certification and testing to become registered nurses.
- Nursing schools began to evolve from traditional hospital-based programs to university-level curricula. Nurses began to gain further education in the form of advanced degrees.

# Major Events in the History of Nursing Education

Hospital based training -Nightingale Model: Differences between English model and United States model.

- English: After the Crimean war, Florence Nightingale received funding to start a school of nursing St. Thomas Hospital.  
School administration separate from hospital administration.
- United States: school under hospital administration ; apprenticeship program. Pupil nurses staffed the hospitals.  
Program length initially 2 years, increased to 3 years.  
Seen as women's work. Service first, Education second.

# Influence of Hippocrates

- Hippocrates, born in 460 BC on the Greek island
- He is the Father of Medicine
- He helped to lay the groundwork for nursing and medicine
- He proposed the concept of physical assessment.



# Influence of Hippocrates

- He emphasized the importance of caring for the whole person (holistic healthcare)
- Physician repeat the Hippocrates oath when graduating.

# The Nightingale Pledge

- I solemnly pledge myself before God and in the presence of this assembly, to pass my life in purity and to practice my profession faithfully.
- I will abstain from whatever is deleterious and mischievous, and will not take or knowingly administer any harmful drug.
- I will do all in my power to maintain and elevate the standard of my profession, and will hold in confidence all personal matters committed to my keeping and all family affairs coming to my knowledge in the practice of my calling.
- With loyalty will I endeavor to aid the physician, in his work, and devote myself to the welfare of those committed to my care.

# HISTORICAL DEVELOPMENT IN NURSING

1-500 AD	Nursing Care involves meeting the hygiene and comfort needs	Nursing involves a high degree of technical skill require critical thinking .
1854-1860	Nightingale makes major contributions to modern nursing	Nightingale's contributions continue to influence nursing
1872	America's first trained nurse, Linda Richards, graduates.	Nursing continues in institutions of higher learning.
1893	Wald and Brewster establish the first home visiting nurse Organization in the US.	Visiting nurse associations have grown
1899	ICN is established.	ICN continues to represent nursing concerns.
1953	National Students Nurses Association is established	NSNA continues to encourage nursing students to become involved in professional issues.
1985	National Centre for Nursing Research is established	1993 – the National centre for research is upgraded to Institute status.

# Florence Nightingale's contribution in nursing

- Florence Nightingale brought nursing from a disreputable and immoral vocation into the honest and ethical profession that is enjoyed today by emphasizing strict morals in the personal and work lives of her nursing students.
- Nightingale viewed nurses as “educators, political and social advocates, health promoters, facilitators, leaders, administrators, researchers, statisticians, and managers”

# Florence Nightingale's contribution in nursing

- Her contributions to modern nursing are felt today. From proper wound care and the sterile conditions of the modern operating room to the current shift from hospital care to outpatient and homehealth care
- She started the first sectarian school of nursing. Before that, nursing schools were religious in nature or military orders for men. The Nightingale School of Nursing was funded through donations largely from the British soldiers she aided during the war.

# Florence Nightingale's contribution in nursing

- She was also an early researcher. "She used statistics to analyze social conditions and the effectiveness of public policy and then to influence the allocation of resources."
- Nightingale was a prolific writer, authoring texts, journals, reports and more than 200 personal letters to accomplish her goals. Her book, *Notes on Nursing: What it is, What it is Not*, was used as a nursing textbook for decades. It emphasized her focus on the environmental aspects of nursing—pure air, light, cleanliness, pure water and efficient drainage.

# Implications for Nursing Education

- Interdisciplinary assessment of care needs
- Examination of evidence to support care needs
- Interdisciplinary plan of care
- Evaluation of care using a quality model
- Application of quality improvement techniques and informatics to adjust the plan based on patient outcomes.

# TRENDS OF NURSING

- The nursing profession has evolved over years and continues to grow in response to society's needs.
- Nursing history has shaped the profession's educational requirements, roles and practice settings.
- Educational preparation and career opportunities in nursing are numerous.
- Nursing roles have expanded as the profession has developed more autonomy and gained status.



# TRENDS OF NURSING

- Nurses function as caregivers, decision makers, client advocates, managers/ coordinators, communicators and educators.
- Individual state nurse practice acts govern and define the scope of nursing practice within each state.
- Nursing organizations have emerged to represent nurses in both general and specialties.

# Current trends in nursing

- Change in education, disappearance of hospital based schools of nursing
- Nursing shortage
- Evidence-based practice
- Decreased hospital length of stay
- Community based nursing
- Aging population
- Increase in chronic health conditions
- Culturally competent nursing care
- Increase costs of health care/managed care

# PROFESSIONAL ORGANIZATIONS

# PROFESSIONAL ORGANIZATIONS

- ICN – International Council of Nurses
- ANA – American Nurses Association
- NLN – National League for Nursing
- CAN – Canadian Nurses Association
- NSNA – National Students' Nurses Association
- NCK – Nursing Council of Kenya
- NNAK – National Nurses Association of Kenya

# PROFESSIONAL ORGANIZATIONS

## IMPORTANCE

- Standards of clinical practice provide criteria to evaluate effectiveness of nursing care and professional performance behaviours.
- Enhances growth of involved individuals and helps nurses collectively influence policies affecting nursing practice.

# NURSING COUNCIL OF KENYA

- Nursing Council of Kenya (NCK) is a body corporate established under the Nurses Act Cap 257 of the Laws of Kenya to regulate standards of nursing education and practice in Kenya.
- The NCK protects the public by promoting standards of clinical care through training, licensure and enforcement of codes of regulation.

- The first Full Council meeting was held in 1950.
- Then known as the Nurses and Midwives Council, the meeting was authorized by the Colony and Protectorate of Kenya, Ordinance No. 16 of 4<sup>th</sup> June 1949.
- On February 28, 1950, via government notice Ref. 212, Vol. III No.1, the Government gazetted the appointment of 13 persons as members of the Council.

- In 1976 the Council moved to the 5th floor of Ministry of Health Headquarters (Afya House) in Nairobi.
- In 1983, the Council was finally acknowledged by an Act of Parliament under the Nurses Act Cap 257 of the Laws of Kenya as the “Nursing Council of Kenya” (The Nurses Act 10th June 1983).
- In August 2003, the NCK moved to occupy its own premises in Woodley Estate off Kabarnet road – Nairobi.



## Functions of the Nursing Council of Kenya

- As stipulated by under Cap 257 of the Laws of Kenya section 9(1); with the approval of the Minister;
  - Establish and maintain standards of nursing profession and safeguard the interests of nurses and healthcare within the community
  - Make provision for training and instruction of persons seeking registration as nurses under this Act
  - Regulate syllabi
  - Prescribe and conduct information

- Have regard to the conduct of persons under the Act and take disciplinary measures
- Have regard to standards of nursing care, qualified staff, facilities, conditions and environment
- Compile records and keep registers
- Prescribe uniforms
- Advise the Minister on matters concerning all aspects of nursing

# Core values

- Commitment to excellent customer service
- Transparency and accountability
- Adherence to competence and performance
- Integrity, public policy and ethics
- Belief in equality of all human beings

# NATIONAL NURSES ASSOCIATION OF KENYA (NNAK)

- NNAK is a professional body representing all nurses in Kenya working to promote social-economic development of nurses, excellences in nursing practice and leadership through high standards of nursing education and research in collaboration with others.
- Membership - All licensed nurses are eligible to membership of NNAK. Student nurses are eligible as associate members of NNAK.
- NNAK is registered as a society under Cap 108 Laws of Kenya.

# Purposes and Objectives

- Promote quality nursing care and maintain the honor, interest and practice of all aspects of the profession as a whole
- Promote and maintain high standard of nursing education
- Stimulate, encourage and participate in nursing research
- Promote co-operation between this body and other national and on international professional bodies

- Promote good understanding between the Association and employing agencies and consumers.
- Act as a local representative body of the nursing profession in whatever circumstances that may arise.
- Assist wherever possible NNAK members who by reason of adversity or ill health are in need of help.

- Promote high standard nursing ethics, conduct and practice, which is organized and functions unrestricted by consideration of nationality, race, creed, politics, age, sex or social status.
- Arrange and hold periodic meetings of the Association for professional, education and social purposes.

- In order to execute its mandate, the Association has set up the National Executive Council (NEC).
- The day to day management of the Association's affairs is in the hands of an executive arm of the NEC called the National Executive Officials (NEO).
- The Association has a Secretariat which supports the activities of NEO.



## International Council of Nurses (ICN)

- The ICN is a federation of more than 130 national nurses associations.
- Founded in 1899 and was the first international organization for health care professionals.
- It is headquartered in Geneva, Switzerland.
- Membership is limited to one nursing organization per nation.

# ICN LOGO



International Council of Nurses  
Consejo Internacional de Enfermeras  
Conseil International des Infirmières

## Goals of ICN

- To bring nurses' organizations together in a worldwide body.
- To advance the socio-economic status of nurses and the profession of nursing worldwide.
- To influence global and domestic health policy.

# History of ICN

- Founded in 1899 with Great Britain, the USA, and Germany as charter members.
- The ICN is governed by a Council of National Representatives (CNR).
- The CNR is the governing body of the ICN and sets policy, admits members, selects a board of directors, and sets dues.
- National Representatives are selected by each member association.
- The CNR meets every two years.

# ICN PILLARS

- ICN has identified three key programs areas as crucial to the betterment of nursing and health.
- These are known as ICN's Pillars and they are:
  - Professional Practice.
  - Regulation.
  - Socio-Economic Welfare.

The association's activities are focused in these areas.

# Professional Practice

- In professional practice ICN's current focus is in the following areas: Leadership Development, eHealth, and Linkages.

## Leadership Development

Over the years ICN has initiated many projects to prepare nurses for leadership (3 ways);

- addressing knowledge and skills to lead in an era of reform
  - Leadership for Change
- leading through skills in negotiation - Negotiation in Leadership

- The Global Nursing Leadership Institute (GNLI) represents the third-arm of ICN's leadership development strategy.

# eHealth

- The ICN eHealth Program encompasses:
  - the International Classification for Nursing Practice (ICNP), which provides an international standard to facilitate the description and comparison of nursing practice locally, regionally, nationally and internationally;
  - the ICN Telenursing Network which aims to involve and support nurses in the development and use of telehealth technologies.
  - the Connecting Nurses initiative which provides an online forum for nurses worldwide to share ideas, advice and innovations.



## Linkages

- ICN's ever-increasing networks and connections to people reinforce the importance of strong linkages with national, regional and international nursing and non-nursing organisations.
- Building positive relationships internationally helps position ICN, nurses and nursing for now and the future.

# ICN ROLE IN REGULATING NURSING PRACTICE

- ICN was created in 1899 to ensure high standards of nursing education and practice globally.
- ICN's role in regulation includes:
  - Convening regular international meetings of National Nurses Association leaders, government Chief Nurses, and national nursing regulatory authorities to address key issues in regulation.
  - Monitoring and analysing nursing regulation and regulatory forces and trends worldwide.

- Providing regular opportunities for interaction among individuals, groups and organisations who have an interest in or are responsible for regulating nursing. (e.g. conferences, network and web based activities)
- Providing national nurses associations and others with the tools (e.g. information, guidelines, international standards, competencies and frameworks) to enable them to remain up-to-date on regulatory matters

- Providing nursing and other key stakeholders with advice and consultation to undertake reforms and to respond to changes having an impact on professional regulation.
- Liaising with international institutions addressing issues of regulation.
- Influencing/negotiating regulatory reform in the best interest of the public and the profession.

- Establishing accreditation, certification and endorsement services in selected areas.
- Collaborating with other groups and interested parties on regulatory activities and issues of common interest.
- Setting directions for the ongoing development of nursing regulation worldwide.
- Promoting data collection in order to provide an evidence base for regulatory policies and practices.

# The ICN Code of Ethics for Nurses

- Four principal elements that outline the standards of ethical conduct.

## Elements of Ethical Code

- Nurses and the people
- Nurses and practice
- Nurses and profession
- Nurses and co-workers

# 1) NURSES AND PEOPLE

- The nurse's primary professional responsibility is to people requiring nursing care.
- In providing care, the nurse promotes an environment in which the human rights, values, customs and spiritual beliefs of the individual, family and community are respected.

- The nurse ensures that the individual receives sufficient information on which to base consent for care and related treatment.
- The nurse holds in confidence personal information and uses judgment in sharing this information.
- The nurse also shares responsibility to sustain and protect the natural environment from depletion, pollution, degradation and destruction.



## 2. NURSES AND PRACTICE

- The nurse carries personal responsibility and accountability for nursing practice, and for maintaining competence by continual learning.
- The nurse maintains a standard of personal health such that the ability to provide care is not compromised.
- The nurse uses judgment regarding individual competence when accepting and delegating responsibility.

- The nurse at all times maintains standards of personal conduct which reflect well on the profession and enhance public confidence.
- The nurse, in providing care, ensures that use of technology and scientific advances are compatible with the safety, dignity and rights of people.

### 3. NURSES AND THE PROFESSION

- The nurse assumes the major role in determining and implementing acceptable standards of clinical nursing practice, management, research and education.
- The nurse is active in developing a core of research-based professional knowledge.
- The nurse, acting through the professional organization, participates in creating and maintaining safe, equitable social and economic working conditions in nursing.

## 4. NURSES AND CO-WORKERS

- The nurse sustains a co-operative relationship with co-workers in nursing and other fields.
- The nurse takes appropriate action to safeguard individuals, families and communities when their health is endangered by a coworker or any other person.

# CODE OF ETHICS

- A code of ethics is a formal statement of a group's ideals and values.
- It is a set of ethical principles that is shared by members of the group, reflects their moral judgments over time and serves as a standard for their professional actions.

# CODE OF ETHICS (Contd)

- Nurses have high value and worth.
- Nursing profession requires integrity of its members – they should do what is right regardless of personal cost.
- Ethical codes change as needs and values of the society change.

# VALUES OF NURSING

- Strong commitment to service
- Belief in dignity and worth of each person
- Commitment to education
- Professional autonomy

# MORAL PRINCIPLES

- Autonomy – right to make one's own decisions.
- Non- maleficence – 'do no harm'
- Beneficence – 'doing good' Maximize benefits/minimize harms
- Justice – fairness.
- Fidelity – to be faithful to agreements and promises.
- Veracity – telling the truth.



# NURSING ETHICS

Refers to ethical issues that occur in Nursing practice.

The nurse:-

- maintains patient confidentiality within legal and regulatory parameters.
- acts as the patient's advocate and assists patients in developing skills so they can advocate for themselves.
- Delivers care in a non-judgmental and non-discriminatory manner that preserves patient autonomy, dignity and rights.
- Seeks available resources in formulating ethical decisions.

# PURPOSE OF NURSING ETHICS

- Inform the public about the minimum standards of the profession.
- Provide a sign of the profession's commitment to the public it serves.
- Outline the major ethical considerations of the profession.
- Provide ethical standards for professional behaviour.
- Guide the profession in self regulation.
- Remind the nurses of the special responsibility they assume when caring for the sick.

# ETHICAL DECISION-MAKING

- Should be based on ethical principles rather than on emotions, intuition (feelings), fixed policies or precedent (earlier similar occurrence).
- Maximize the client's well being
- Balance the client's need for autonomy with family members' responsibility for the client's well being.
- Support each family system and enhance family support system.
- Carry out hospital policies.
- Protect other client's well being.
- Protect the nurse's own standards of care.

# PATIENT'S BILL OF RIGHTS

The patient has the right to:-

- Considerate and respectful care.
- Obtain from care givers relevant, current and understandable information concerning diagnosis, treatment and prognosis.
- Make decisions about the plan of care prior to and during the course of treatment and to refuse a recommended treatment or plan of care to the extent permitted by law and hospital policy and to be informed of the medical consequences of this action.
- Have an advance directive e.g a living will concerning treatment.

# PATIENT'S BILL OF RIGHTS

- Privacy. Case discussion, consultation, examination and treatment should be conducted to protect each patient's privacy.
- Expect all communication and records pertaining his/ her care will be treated as confidential.
- Review records pertaining his/ her medical care and to have the information explained or interpreted as necessary except when restricted by the law.
- Consent or decline to participate in proposed research studies or human experimentation affecting care and treatment or requiring direct patient involvement.
- Be informed of the hospital policies and practices that relate to patient care, treatment and responsibilities

# LEGAL ASPECTS IN NURSING

Nurses need to know and apply legal aspects in their many different roles.

Nurses need to understand laws that regulate and affect nursing practice to ensure that their actions are consistent with current legal principles and to protect the nurse from legal liability.

Competence in nursing practice is determined and maintained by various credentialing methods e.g licensure, certification and accreditation.

# INFORMED CONSENT

- Is an agreement by a client to accept a course of treatment or a procedure after being provided complete information, including benefits and risks of treatment and prognosis if not treated by a health care provider.

# INFORMED CONSENT (CONT'D)

## Types:

- Express – may be a written or an oral agreement. The greater the potential for risk to the client, the greater the need for written permission.
- Implied – exists when the individual's non-verbal behavior indicates non-verbal behavior e.g taking of vital signs.



# INFORMED CONSENT (CONT'D)

General guidelines on information required for the client to make an informed decision include:-

- The purposes of treatment
- What the client can expect to feel or experience
- The intended benefits of the treatment
- Possible risks or negative outcomes of the treatment
- Advantages and disadvantages of possible alternatives

# INFORMED CONSENT (CONT'D)

## Elements of informed consent

- Must be given voluntarily.
- Must be given by a client or individual with the capacity and competence to understand.
- The client or individual must be given enough information to be the ultimate decision-maker.

# INFORMED CONSENT (CONT'D)

## Exceptions for informed consent

- Minors.
- Persons who are unconscious or injured in such a way that they are unable give consent.
- Mentally ill persons who have been judged by professionals.

# INFORMED CONSENT (CONT'D)

## Nurse's role

The nurse is not responsible for explaining the procedure but for witnessing the client's signature on the form.

The nurse's signature according to Sullivan (1998) confirms:-

- Client gave consent voluntarily
- Signature is authentic
- Client appears competent to give consent.

# LEGAL PROTECTIONS IN NURSING PRACTISE

- Laws and strategies are in place to protect the nurse against litigation.
- Providing safe, competent practice by following the nurse practice and standards of practice is a major legal safe guard for nurses.
- Accurate and complete documentation is also a critical component of legal protection of the nurse.

# GOOD SAMARITAN ACTS

- Good Samaritan acts are laws designed to protect health care providers who provide assistance at the scene of an emergency against claims of malpractice unless it can be shown that there was a gross departure from the normal standard of care or willful wrongdoing on their part.

# GOOD SAMARITAN ACTS (CONT'D)

Guidelines for nurses who render emergency care

- Limit actions to those normally considered first aid, if possible.
- Do not perform actions that you do not know how to do.
- Offer assistance, but do not insist
- Have someone go for or call for additional help.
- Do not leave the scene until the injured person leaves or another qualified person takes over.
- Do not accept any compensation.

# BED MAKING





# Bed making

- Nursing is a profession that requires extensive training in patient care and procedures.
- One of these tasks is learning how to make a bed properly, especially since beds are such an integral part of the patient's world while staying in the hospital.

# Definition

- A hospital bed is the piece of equipment most frequently used by the hospitalized patient. Hospital beds are also found in long-term-care facilities, as well as patients' homes. The ideal hospital bed should be selected for its impact on patients' comfort, safety, medical condition, and ability to change positions.

# Importance of bed making

1. It helps maintain a clean, orderly and comfortable room which contributes to the patients sense of well-being.
2. Helps the patient secure proper rest and comfort which are essential for health and refresh him/her by providing cleanliness
3. It helps prevent or avoid microorganisms to come in contact with the patient which could cause tribulations.
4. It minimizes the sources of skin irritation by providing smooth, wrinkle-free bed foundation

# Purpose

- The purpose of a well-made hospital bed, as well as an appropriately chosen mattress, is to provide a safe, comfortable place for the patient, where repositioning is more easily achieved, and pressure ulcers are prevented.

# Purpose

- To keep the ward neat and tidy.
- For patients comfort.
- To prevent cross infection.
- For treatment of certain conditions.

# Purpose

An unoccupied bed

- to promote the client's comfort
- to provide a clean environment for the client
- to provide a smooth, wrinkle-free bed, thus minimizing sources of skin irritation.

# Purpose

An occupied bed

- to conserve the client's energy and maintain current healthy status
- to promote the client's comfort
- to provide a clean environment for the client
- to provide a smooth, wrinkle-free bed, thus minimizing sources of skin irritation



# Bed making supplies

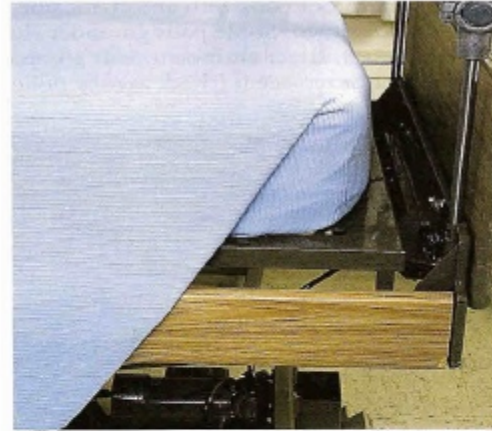
- (a) Large sheets (2).
- (b) Drawsheet (1) - sheet placed over the bottom sheet to help lift or move a patient and to protect the bottom sheet from soiling.
- (c) Blanket.
- (d) Pillow(s).
- (e) Pillowcase(s)
- (f) Flannel (Bed cover)

# Bed making

## Mitered corner

- a means of anchoring sheets on mattresses
- method of folding the bed clothes at the corners to secure them in place while the bed is occupied
- it is accomplished on the bottom sheet by placing the end of the sheet evenly under the mattress

# Bed making



# Bed appliances

- Foot board: To prevent foot drop.
- Sandbags: Used to immobilize extremities. (e.g., in burns).
- Trochanter Rolls: Prevent external rotation of the hips and thigh (use rolled blanket or towels).

# Bed Appliances

## Bed cradle

- is a curved, semi-circular device made of metal that can be placed over a portion of the patient's body
- is sometimes called an Anderson frame, is a device designed to keep the top bedclothes off the feet, legs, and even abdomen of a client

# Bed Appliances

- Wheel locks: These should be used whenever the bed is stationary.
- Bed Side rails: They help to protect patients from accidentally falling out of bed, as well as provide support to the upper extremities as the patient gets out of bed. For more safety, side rails should be padded.
- Removable headboard: This feature is important during emergency situations, especially during cardiopulmonary resuscitation.

# Bed appliances

A trapeze bar - Used for patient with fractures and confined to bed to help the patient move and turn easily in the bed. It attaches to the head board of a hospital bed.

## Bed Side Stand

- Is a small cabinet that generally consists of a drawer and a cupboard area with shelves
- Used to store the utensils needed for clients care. Includes the washbasin (bath basin, emesis (kidney) basin, bed pan and urinal
- Has a towel rack on either sides or along the back
- Is best for storing personal items that are desired near by or that will be used frequently

# Bed appliances

## Over Bed Table

- The height is adjustable
- Can be positioned and consists of a rectangular, flat surface supported by a side bar attached to a wide base on wheels
- Along side or over the bed or over a chair
- Used for holding the tray during meals, or care items when completing personal hygiene





# Bed appliances

## Overhead Light (examination light)

- Is usually placed at the head of the bed, attached to either the wall or the ceiling
- A movable lamp may also be used
- Useful for the client for reading or doing close work
- Important for the nurse during assessment

# Bed appliances



# Types of beds

## Routine beds:

- Simple unoccupied bed.
- An occupied bed.

## Special beds:

- Cardiac bed.
- Orthopedic bed.
- Operation bed.
- Admission bed.
- Amputation bed/ Divided bed.

# Types of beds

## Occupied bed

- The occupied bed is made when the patient is not able or not permitted to get out of the bed
- The important part of making an occupied bed is to get the sheets smooth and tight under the patient so that there will be no wrinkles to rub against the patient's skin
- The client's privacy, comfort and safety is also important when making the bed

# Types of beds

## Unoccupied/ Closed bed

- the top sheet blankets and bedspreads are drawn up to the head of the mattress and under the pillows, this is prepared in a hospital room before a new client is admitted to that room.

## Cradle Bed

- Contains cradle, a device for holding the top covers off.
- The outer cradle is made of wood, metal or at home for a brief period, a cardboard art to shape

# Types of beds

## Postoperative Bed

- Also known as recovery bed or anesthetic bed.
- Used not only for clients who have undergone surgical procedures but also for clients who have given anesthetics for a certain examination.
- Used for a patient with a large cast or other circumstance that would make it difficult for him to transfer easily into bed.

# Types of beds

## Requirements of a post operative bed

- All articles needed for an open bed.
- Gauze pieces.
- Mouth gag air way.
- Vital signs tray.
- Intravenous stand.
- Suction apparatus and oxygen cylinder.
- Vomiting bowl.



# Types of beds

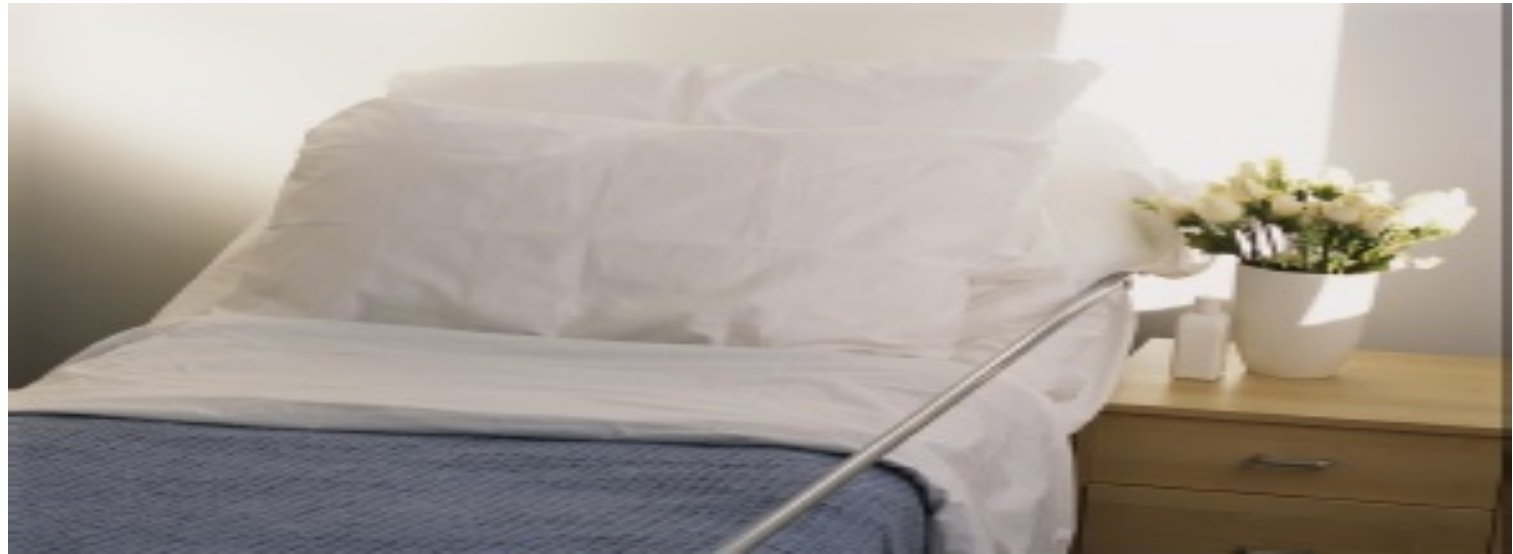
Requirements for an orthopaedic bed  
(Additional articles)

- Fracture board under the mattress.
- Cradle.
- Sand bags.
- Trapeze bar.
- Pulleys and weights.

# Types of beds



# Types of beds



# Types of beds



# Bed making



# Bed making

Procedure	Rationale
Explain the procedure to the patient	This will help to allay anxiety and promote cooperation
Assemble all equipments	Provides smooth procedure and assists in maximizing client's comfort
Perform hand hygiene and apply gloves	Reduces transmission of microorganisms
Check chart for orders or specific precautions regarding movements and position	Ensures client's safety and proper use of body mechanics
Draw curtains, screens and close the windows	Maintains client's privacy
Adjust bed height to comfortable position	This minimizes strain on the back

# Bed making

Procedure	Rationale
Loosen top linen at the foot of the bed	It makes linen easier to remove
Remove bed spread and blanket separately	Reduces transmission of microorganisms
If spread and blanket are dirty, place in the linen bag	Keep soiled linen away from uniform
If they are to be used, fold by bringing top and bottom edges together	Folding facilitates replacement
Place folded linen over back of chair	Minimizes wrinkles

# Guidelines for making a bed

- a. Gather all the required linen and accessories before making the bed.
  - Sheets.
  - Pillowcases.
  - Blankets.
  - Bedspread.
  - Extra pillows.
- b. Avoid shaking the linen to prevent the spread of microorganisms and dust particles.



# Guidelines for making a bed

- c. Avoid placing linen, clean or dirty, on another patient's bed.
- d. Do not place dirty linen on the floor.
- e. Do not hold dirty linen against your uniform.
- f. Always use good body mechanics; raise the bed to its highest position to make bed-making easier.
- g. Stay on one side of the bed until it is completely made; then move to the other side and finish the bed. This saves time and steps.

# Guidelines for making a bed

- h. Observe the patient and document any nursing observations.
  - Check for areas of redness that may lead to decubiti formation.
  - Note tolerance of activity level while out of bed.
  - Note observations about the physical and emotional status of the patient.
  - Note any patient teaching or reinforced teaching given and the patient's response.
  - Check for drainage, wetness, or other body fluids and record observations.

# Rules to be observed when making beds

- All equipments should be collected before starting.
- Two nurses are required and they should work in harmony.
- Bed should be made in such a way that patient can be put in it without difficulty.
- The bed should be free from crumbs and creases and should give a maximum comfort to the patient.

# Rules to be observed when making beds

- Pillows and other bed accessories should be well arranged to give support where necessary.
- The patient's face should never be covered by sheets or blankets.
- The patient must never be exposed.
- Extra assistance should be available and, if necessary, one should be called upon to help lift the patient.
- When pillows are being shaken the nurse should turn away from the patient.
- Any conversation during bed making should not be on personal matters between the nurses.

# Rules to be observed when making beds

- The open side of a pillow case should be away from the main door of the ward.
- Always have a dirty linen bin at hand in which to put dirty linen.
- Dirty linen should not be carried across the ward to prevent cross infection.
- allow room for the patient feet for free movement or turning when placing the top sheet over the patient.
- Always wash hands before and after bed making.

# Methods of bed-making

## Unoccupied (Closed) Bed.

- (1) Raise the bed to a comfortable working height, if adjustable.
- (2) Lower siderails, if present.
- (3) Remove pillows and pillowcases. Set the pillows aside in a clean area.
- (4) Fold and set the blankets and spreads aside (to be reused).
- (5) Loosen the linen along the edges of the bed, and move toward the end of the bed.

# Methods of bed-making

- (6) Wash the mattress if necessary, turn the mattress to the opposite side if necessary
- (7) Place the bottom sheet.
- (8) Place a draw sheet on the center of the bed, if it is needed.
  - (a) Tuck in the free edge on one side.
  - (b) Stretch the draw sheet from the opposite side and tuck in the free edge.
- (9) Place the top sheet, blanket (if used), and bedspread.
  - (a) Position evenly on the bed.
  - (b) Miter the bottom corners, tucking all three parts together.
  - (c) Leave the loose ends free.

# Methods of bed-making

- (10) Fanfold the top linen back to the foot of the bed.
- (11) Place a clean pillowcase over the pillow and place it at the head of the bed.
  - (a) Invert the pillowcase over one hand so the inner back seam is visible.
  - (b) Grasp the edge of the pillow with one hand holding the pillowcase at the seam.
  - (c) Use the opposite hand to guide the pillowcase over the pillow.
- (12) Adjust the bed to its lowest position, if adjustable.
- (13) Reposition the head up slightly, if the patient prefers.
- (14) Raise the siderails opposite the side of the bed where the patient will enter.



# Methods of bed-making

## Occupied (Open) Bed.

- (1) Wash your hands.
- (2) Identify the patient, explain the procedure, and be sure you will have the patient's cooperation.
- (3) Check the condition of the bed linens to determine which supplies you will need.
- (4) Provide for the patient's privacy (throughout the procedure).
- (5) Obtain the articles of linen that you will need.
- (6) Place the bath blanket over the patient and the top cover.
- (7) Loosen the top bedding from the foot of the bed and remove it.

# Methods of bed-making

- 8) Move the mattress to the head of the bed.
- (9) Move the patient to the distal side of the bed.
- (10) Make the bed on one side.
- (11) Move or turn the patient to the clean side of the bed, and finish making the bed on the opposite side. Place the clean linen on top, and remove the bath blanket.
- (12) Attach the patient's signal cord within reach.
- (13) Provide for the patient's safety and comfort.
- (14) Tidy the room.

# Methods of bed-making

Anesthetic, Surgical, or Post-Operative Bed.

- (1) Gather all needed supplies:
- (2) Make the bed as though you are making an unoccupied bed, except that the top sheet and blanket are not tucked under the mattress at the foot of the bed, and the corners are not mitered.
- (3) Fanfold the top covers to the side or to the foot of the bed.
- (4) Place a towel or disposable pad at the head of the bed. This is intended to protect the sheet if the patient should vomit.
- (5) It is a good idea to place a drawsheet on the bed because it can be used to move the patient more easily.

# Methods of bed-making

- (6) Place the pillow(s) on a chair near the bed or in an upright position at the head of the bed.
- (7) Leave the bed in the high position.
- (8) Lock the brakes on the bed.
- (9) Move the furniture away from the bed to allow for easier access to the bed for the recovery room stretcher and personnel.
- (10) Make certain an emesis basin is readily available and suction is available where indicated.

# Body Mechanics in bed making

- Know limitations. Don't lift, turn, or move resident alone if in doubt
- Get close to side of bed, don't make from the top or bottom of the bed
- Back straight, knees bent, feet apart
- Move feet to turn in direction wanted & avoid twisting back
- Raise bed to comfortable height
- Make one side of bed before beginning other side

# PERSONAL HYGIENE

# Definition

- Hygiene: is care attending to such function as bathing, oral care, grooming hair, cleaning fingernails, genital area, ear and eye care.
- It is a nurse's responsibility

# Definition

- The more ill patient, the more skill needed in providing the hygiene care.
- Cleansing skin is first line of defense against organisms



# Critical thinking

- Situation:

The nurse enters Mr. C's room to do a complete bed bath and he says "I do not want my bath now, I just want to rest". You notice that his bed is wet and he was incontinent of urine.

Now what should the nurse do?

# Purpose of Bathing

- Cleansing the skin - Removes perspiration, bacteria, which minimizes skin irritation and reduces chance of infection
- Stimulation of circulation - Warm water and gentle strokes from distal to proximal increase circulation and promote venous return
- Improve self-image - Promotes feeling of being refreshed, relaxed
- Promotes range of motion

# Factors affecting personal hygiene

- Culture.
- Religion.
- Environment.
- Development level.
- Health and energy.
- Personal preferences

# Types of baths

- Complete bed bath – totally dependent patient
- Assisted bath – provide the patient with assistance
- Partial bed bath – bathing only parts that would cause discomfort
- Tub bath – immersion in tub water
- Shower - Used by ambulatory patients who require only minimal assistance. Can be used with a shower chair

# Types of therapeutic baths

- Sitz bath – cleanses the perineal area for rectal/ perineal surgeries, after child birth, haemorrhoids
- Medicated bath (sodium bicarbonate etc) – skin irritation to aid relief and creates antibacterial and drying effect.

**SITZ BATH**

# Sitz bath

- A sitz bath is a warm water bath used for healing or cleansing purposes.
- The patient sits in the bath and the water covers only the hips and buttocks. The water may contain medication.
- It is used to relieve discomfort and pain in the lower part of the body

## Purpose :

- a. To relieve muscle spasm
- b. To soften exudates
- c. To hasten the suppuration process
- d. To hasten healing
- e. To reduce congestion and provide comfort in the perineal area



# Sitz bath

## Indications

- Hemorrhoids
- Anal Fissures
- Rectal Surgery
- An Episiotomy,
- Inflammatory Bowel Disease
- Infections of the Bladder, Prostate or Vagina.

# Sitz bath

## Procedure

- Fill the plastic sitz bath two-thirds ( $2/3$ ) full with warm water, not hot ( $37$  to  $39^{\circ}\text{C}$  or  $99$  to  $102^{\circ}\text{F}$ ).
- Add ( $5$  to  $15\text{mL}$ )  $1/2$  –  $1$  tablespoon of baking soda or ( $5$ - $10\text{mL}$ )  $1$ – $2$  teaspoons of salt to the water in the plastic sitz bath and swirl the water till the baking soda or salt is dissolved.
- Carefully assist the patient to sit down in the plastic sitz bath and soak their perianal area for  $10$  to  $15$  minutes.

# Sitz bath

## NURSING ROLE:

- Warm water should not be used if considerable congestion is already present.
- The patient should be observed closely for signs of weakness and faintness.
- After the patient is in the tub or the chair, check to see whether or not there is pressure against the patient's thighs or legs.
- Support patient's back in the lumbar region.

# Sitz bath

- Documentation:
  - a. Type of solution
  - b. Length of time of application
  - c. Type of heat application
  - d. Condition and appearance of wound
  - e. Comfort of patient

# ASSISTED BATH

# Indications

- Patients with some physical disabilities that prohibit them from performing certain duties for themselves e.g:
- Paraplegic
- Patients on traction
- Very weak patients on convalescence
- Arm disabilities or deformities
- Patients on a drip
- Patients with dressing covering large areas of the skin

# Procedure

- Prepare equipment
- Explain the procedure to the patient
- Prepare the environment
- Wash hands, put on plastic apron
- Assist the patient from bed to the bathroom
- Help patient to undress and get into a bath or chair or sit up in bed
- Place the soap, water, flannel, towel and clothing where he can reach

# Procedure

- Stay with him to assist with areas he cannot reach
- Assist him to dress up, clean his mouth, cut nails, comb hair
- Make his bed
- Assist him to go back to bed or leave him sitting out of bed if he wishes



- Record on the care index
- Report any abnormal observations made or complaints from the patient

**BED BATH**

- The bed bath is a good time to establish rapport and expand the nurse–patient relationship.

# Bed Bath

## Indication for bed bath

- Bed bathing is assisting a confined patient to maintain good personal hygiene.

## Complete bed bath

- Ensures cleanliness of patients who cannot bathe themselves.
- Promotes circulation.
- Provides comfort.
- Maintains muscle tone and joint mobility through active and passive movement.
- Provides an opportunity for thorough assessment.

# Bed Bath

## Equipment

- Trolley
- Apron
- Basin of warm water
- Soap
- Patient's toiletries
- Hospital towels
- Disposable cloth for face
- Disposable paper towel
- Patient's brush/comb
- Nail scissors
- Clean night wear
- Clean bed linen
- Receptacle for soiled patient clothing
- Receiver for soiled bed linen
- Receptacle for soiled disposables

- Vomiting bowl to use for rinsing the mouth

# Bed Bath

## Preparation

- Assess patient's ability to perform his or her own care.
- Discuss patient preferences for bathing.
- Provide privacy.
- Avoid chilling the patient.
- Wash your hands; wear gloves.
- Gather all supplies in room before you begin.
- Ask patient if he or she needs to use the bedpan
- Check to see if patient is allergic or sensitive to soap.

# Bed Bath

## Special consideration

- It is always preferable to have the patient assist with the bath as much as possible, particularly with perineal care.
- During and after the bath, the bed linen is changed, and the two activities are usually combined.
- After giving a bed bath, always ask the patient if he feels comfortable; make sure the bed is in low position, side rails up, and call bell is within reach (if available).

# Bed Bath

Basic methods of maintaining privacy and dignity include:

- Covering patients with a sheet or towel while they are being washed so that no part of the body is left exposed.
- Taking care to ensure that any curtains around bed areas are closed properly and that there are no gaps through which other people can see.
- Trying to prevent other people, staff or visitors from entering the room during bed bathing.



# Bed Bath

## Procedure

- Perform hand hygiene;
- Put on apron;
- Collect and prepare the equipment;
- Ensure patient understands and consents to procedure;
- Ensure the patient's privacy;
- Remove excess bed linen, but leave patient covered with a bed sheet;
- Assist the patient to remove night wear;
- Check the temperature of the water

# Bed Bath

- Wash, rinse and dry the patient's face, ears and neck;
- Expose only the part of the patient's body being washed;
- Change the water as it cools, becomes dirty or immediately after washing the patient's pubic area;
- Wash, rinse and dry thoroughly the patient's body in an appropriate order such as the upper limbs, chest and abdomen, back, lower limbs and anal area;
- Monitor skin integrity
- Apply patient's toiletries as desired by patients;

# Bed Bath

- Assist the patient to wash, rinse and dry their pubic area using the extra face cloth, washing from the front of the perineal area to the back to prevent cross infection from the anal region;
- Perform hand hygiene;
- Assist the patient to dress in clean wear;
- Assist the patient to cut/clean toe-nails/finger-nails, as required. Special care should be taken to ensure no damage is made to the nail or nailbed in patients with diabetes or peripheral vascular disease;
- Remake the patient's bed, using clean linen as required;

# Bed Bath

- Assist the patient with mouth care;
- Assist the patient to brush/comb hair;
- Ensure the patient is left feeling as comfortable as possible;
- Remove apron;
- Perform hand hygiene;
- Dispose of the equipment as per infection prevention policy;
- Document the procedure, monitor for after-effects and report abnormal findings immediately.

# Bed Bath

## Procedure of complete bed bath

- Discuss procedure with patient and ensure privacy - Promotes cooperation and decreases anxiety.
- Place all supplies within reach - Organizes task and prevents unnecessary steps.
- Wash hands - Reduces transmission of microorganisms.
- Position bed at comfortable height - Reduces nurse's back strain.
- Fill basin with warm water, and test temperature - Testing temperature helps prevent accidental scalding.
- Help patient to side of bed closest to you, and lower side rail - Provides access to patient, and reduces back strain of nurse.

# Bed Bath

- Remove patient's clothes while providing warmth and privacy with a covering such as a bed blanket - Provides access to body parts; provides modesty and warmth.
- Take washcloth and wrap the cloth around your hand - Prevents splashing water on patient and bedclothes.

# Bed Bath

- Be careful of the patient's eyes.
- Use clear water to clean them, starting from the inner canthus to the outer canthus.
- If patient is not sensitive to soap, lather washcloth and gently wash the patient's face, starting from the forehead down.
- Bathe from cleanest area and work downward toward feet, going from areas of cleanest to dirtiest. Attention to the eyes prevents eye irritation and infection.

# Bed Bath

- Bathe ears and front and back of neck - Perspiration accumulates on the back of the neck when patients lie in bed for long periods.
- Bathe upper body and extremities, stroking arms from wrist to shoulder. Include axillary area - Stimulates circulation.
- Soak hands in basin if indicated - Dirt accumulates under fingernails, especially in incontinent patients.



# Bed Bath

- Keep chest covered with towel and wash under breasts on female patients. Apply powder if patient desires. This area stays moist on many females and can lead to skin excoriation.
- Bathe abdomen using side-to-side strokes on skin folds - Moisture and debris can accumulate in skin folds leading to irritation.

# Bed Bath

- Bathe legs and feet, being sure perineal area is draped - Prevents unnecessary exposure.
- Soak feet in basin if indicated, and if patient is able to hold leg in position - Soaking will soften rough skin and facilitate cleaning toenails.
- Change bath water if necessary. Bath water may be cool or dirty.

# Bed Bath

- Assist patient to side-lying position and wash back. Give backrub. Side-lying position gives access to patients back for backrub.
- Put on clean gloves and bathe perineal area. Dry thoroughly. Prevents cross contamination of organisms. Excess moisture contributes to skin breakdown.

# Bed Bath

- Remove gloves and assist patient to put on clean gown. Promotes dignity and reduces exposure.
- Conduct other personal hygiene activities as needed. Promotes patient's body image.
- Lower bed, raise side rails, put call bell in reach, and dispose of used equipment and linen. Provides safety.
- Wash your hands. Reduces transmission of microorganisms.

# Nursing assessment while bathing

- Color and condition of skin
- Pain on movement
- Level of consciousness
- Injuries
- Scars
- Skin turgor
- Weight loss or gain

# Perineal Care (Perineal & Genital Care)

## Perineal Area:

- Is located between the thighs and extends from the symphysis pubis of the pelvic bone (anterior) to the anus (posterior).
- Contains sensitive anatomic structures related to sexuality, elimination and reproduction

## Perineal care

- Is cleaning of the external genitalia and surrounding area
- Always done in conjunction with general bathing

# Perineal care

Patients in special needs of perineal care

- Post partum and surgical patients (surgery of the perineal area)
- Non surgical patients who unable to care for themselves
- Patients with catheter (particularly indwelling catheter)

Other indications for perineal care:

- 1. Genito- urinary inflammation
- 2. Incontinence of urine and feces
- 3. Excessive secretions or concentrated urine, causing skin irritation or excoriation

# Perineal care

## Purpose

- To remove normal perineal secretions and odors
- To prevent infection (e.g. when an indwelling catheter is in place)
- To promote the patient's comfort
- To facilitate wound healing process



# Perineal care

## Equipments

- Bath towel
- Cotton balls and gauze squares
- Warm water or/and prescribed solution in container
- Gloves
- Bed pan
- Bed protecting materials
- Perineal pad or dressing (if needed)

# Perineal care

## Procedure

### 1. Patient preparation

- Give adequate explanation
- Provide privacy
- Fold the top bedding and pajamas (given to expose perineal area and drape using the top linen.)
- Position pt lying on back with knees flexed and spread apart.
- Place bed protecting materials under the pt's hip
- Place the bedpan under pt's buttock.

# Perineal care

## 2. Cleaning the genital area

- Put on gloves

### For Female

- Remove dressing or pad used
- Inspect the perineal area for inflammation excoriation, swelling or any discharge.

# Perineal care

- a. In case of post partum or surgical patient
  - Clean by cotton swabs, first the labia majora then the skin folds between the majora and minora by retracting the majora using gauze squares, clean from anterior to posterior direction using separate swab for each stroke to minimize infection.
- b. In case of non-surgical patients
  - Wash or clean the genital area with soapy water using the different quarters of the washcloth in the same manner.

# Perineal care

## Male perineal Care

- Hold the shaft of the penis firmly with one hand and the wash cloth with the other – to prevent erection – embarrassment
- Use a circular motion, cleaning from the center to the periphery
- Use a separate section of the wash cloth

# Perineal care

## Position

- Lying in bed with knee flexed to clean the perineal part and side lying cleaning the perineal area

N.B The urethral orifice is the cleanest area and the anal orifice is the dirtiest area – always stroke from front to back to wash from ‘clean’ to ‘dirty’ parts

**CARE OF  
PRESSURE  
AREAS**

# Pressure area care

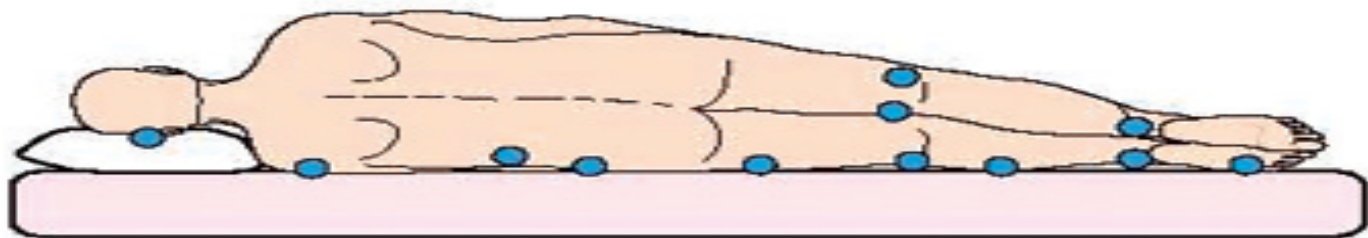
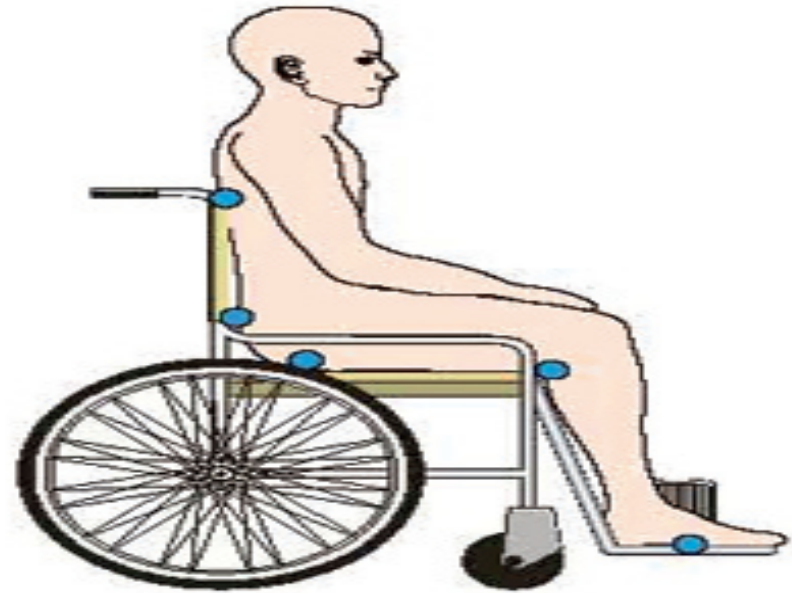
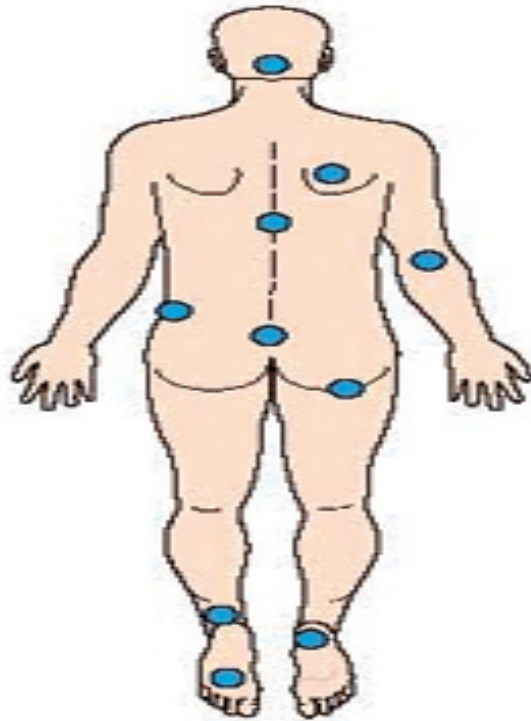
- Pressure area care refers to moving the patient into another position to relieve pressure on a part of the body and prevent the development of a pressure ulcer or 'bed sore'.
- One of the best ways of preventing a pressure ulcer is to reduce or relieve pressure on areas that are vulnerable to pressure ulcers (e.g, bony parts of the body). This is done by moving around and changing position as much as possible.



# Common pressure area sites

- Common sites include the sacrum, back, buttocks, heels, back of the head, and elbows.
- Occiput
- Acromion process
- Scapula
- Olecranon
- Sacrum
- Ischial tuberosity
- Thoracic vertebrae
- Lumbar vertebrae
- Iliac crest
- Coccyx
- Trochanter
- Lateral tibia condyle
- Metatarsals (toes)
- Calcaneus (heel)
- Medial malleolus (inner ankle)
- Lateral malleolus (outer ankle)
- Medial tibia condyle

# Common pressure area sites



# Indications

- Paralysed patients
- Obese patients
- Emaciated patients
- Incontinent patients
- Unconscious patients
- Very ill patients who are unable to turn themselves

# Method

- Wash each area, massage well with the palm of your hand using soap.
- Rinse each area, dry it and apply powder, cream or vaseline depending on the patient's need.
- If needed, patient may be seated on an air ring or soft pillow to relieve pressure

# PRESSURE ULCERS

- A pressure ulcer is any lesion caused by unrelieved pressure that results in damage to underlying tissue (U.S Public Health service's panel for the prediction and prevention of pressure ulcers in Adults {PPPPA}, 1992)
- Also known as decubitus ulcers, pressure sores or bed sores.

# Pressure ulcer (Decubitus ulcer)



# Etiology of pressure ulcers

- Occur due to localized ischaemia.
- When blood cannot reach the tissues, the cells are deprived of oxygen and nutrients. The waste products of metabolism accumulate in the cells and the tissue consequently dies.
- Prolonged, unrelieved pressure also damages the small blood vessels.

# Risk factors

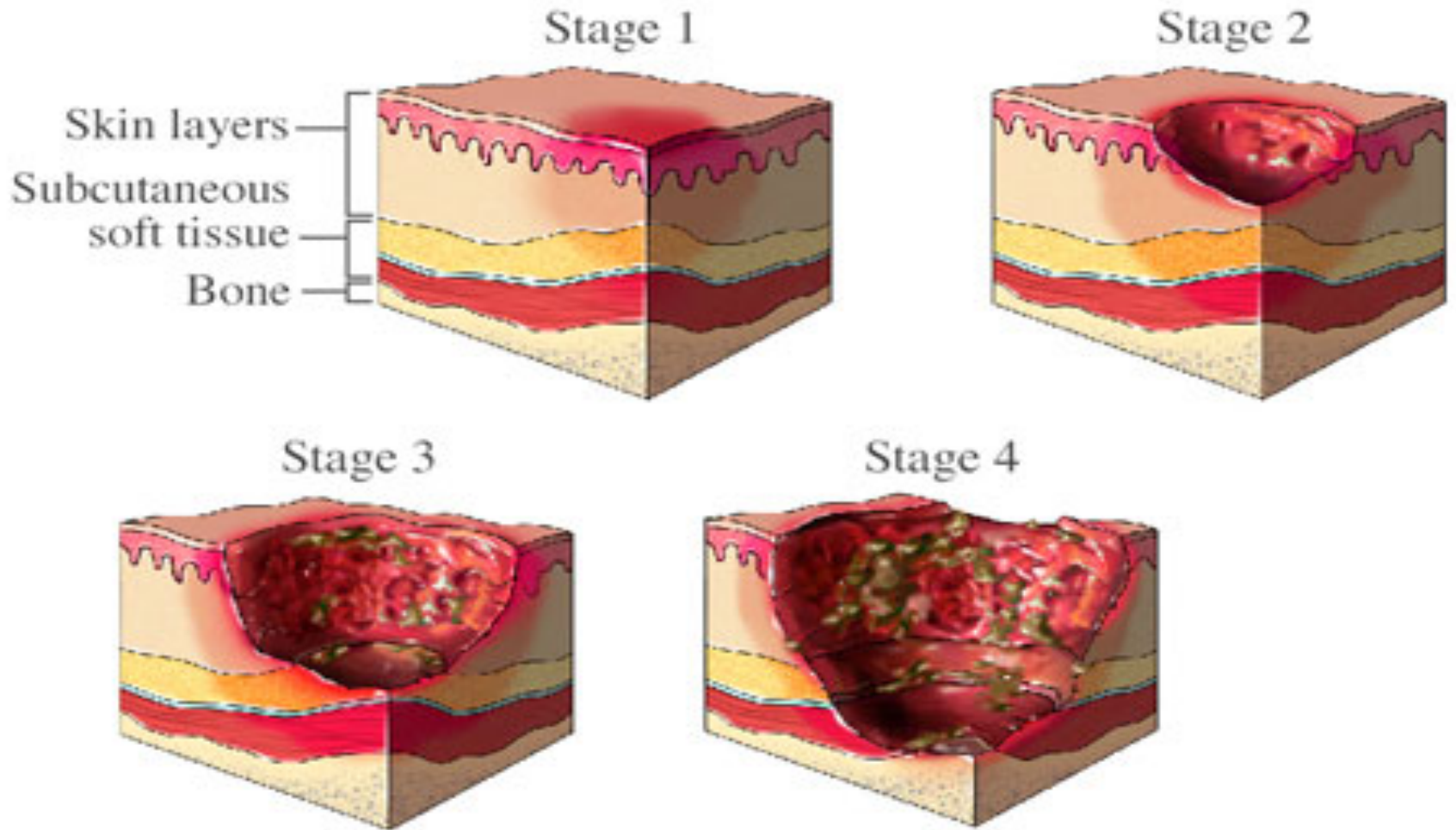
- Immobility – reduction in the amount and control of movement a person has e.g due to paralysis, weakness, pain
- Inadequate nutrition causes weight loss, muscle atrophy and loss of subcutaneous tissue
- Faecal and urinary incontinence – moisture promotes skin maceration
- Decreased mental status – e.g unconscious or heavily sedated



# Risk factors

- Diminished sensation – paralysis, stroke
- Excessive body heat – elevated body temperature increases the metabolic rate thus increasing the cells' need for oxygen
- Advanced age – brings several changes in the skin
- Chronic medical conditions e.g DM
- Other factors – poor lifting techniques, incorrect positioning, repeated injections on the same site, hard support surfaces, incorrect application of pressure – relieving devices

# Development of pressure ulcer



# Prevention

- Massage pressure areas to promote blood circulation
- Two hourly turning of bed - ridden patients

# MOUTH CARE

# Causes of poor oral hygiene

- Inability to carry out oral care, e.g due to stroke, arthritis, arm injury, head injury, surgery;
- Lack knowledge or motivation;
- Lack of access to dental services;
- Lack of money to afford equipment for oral care;
- Poor diet or reduced fluid intake;(not drinking enough)
- If the patient is nil by mouth due to surgery or has swallowing problems.
- Some medications such as anticholinergic drugs and oxygen therapy can cause a dry mouth or an unpleasant taste in the mouth (Major, 2005).

# Mouth care

## Purpose

- To remove food particles from around and between the teeth
- To remove dental plaque to prevent dental caries
- To increase appetite
- To enhance the client's feelings of well-being
- To prevent sores and infections of the oral tissue
- To prevent bad odor or halitosis

# Benefits of oral hygiene

- Promote self-esteem and comfort;
- Improve appetite and enjoyment of food and drink, as poor oral hygiene can affect taste;
- Improve social acceptability and social interaction by preventing halitosis.

# Mouth care

## Procedure for oral assessment

- Gain consent.
- Wash hands.
- Wear gloves and apron.
- Maintain privacy as required. Assess the oral cavity using an appropriate assessment tool. You may need a tongue depressor and a torch to carry out the assessment efficiently.

## Purpose

- To provide a baseline, initial information about the condition of the patient's oral cavity.
- To monitor progress of oral care/treatments.
- To identify any new problems (Dougherty and Lister, 2008).



# Mouth care

## Equipment Required:

- Torch
- Toothbrush and paste
- Tongue depressor
- Cotton tipped applicator, padded applicator
- Vaseline (if necessary)
- Kidney dish
- Suction equipment (if appropriate)
- Clean procedure gloves
- Tissues or wipes

# Mouth care

## Procedure for mouth care

- Gain consent
- Assemble equipment – soft toothbrush, toothpaste, clothing protection, receiver, glass of water for rinsing mouth, tissues;
- Ask the patient to get into an upright position if possible or assist them to do this. (If the patient needs to lie flat special care must be taken to avoid choking. The procedure should be undertaken with the patient's head turned to the side, and suction equipment should be to hand);

# Mouth care

- Wet the toothbrush head and apply a small amount of toothpaste only. Use a gentle, rotational movement to clean the inner, outer and biting surfaces of the teeth. You may also gently brush the surface of the tongue and the gums;
- If the patient cannot tolerate the use of a toothbrush (e.g due to mouth tenderness) foam sticks and mouthwash can be used instead (Dougherty and Lister, 2008);
- Allow the patient to take mouthfuls of water, rinse the mouth and spit into the receiver. Use tissues to dry around the mouth;
- Apply moisturizer to the patient's lips if required.

# Mouth care for unconscious patient

## Position

- Side lying with the head of the bed lowered, the saliva automatically runs out by gravity rather than being aspirated by the lungs or if patient's head can not be lowered, turn it to one side: the fluid will readily run out of the mouth, where it can be suctioned
- Rinse the patient's mouth by drawing about 10 ml of water or mouth wash in to the syringe and injecting it gently in to each side of the mouth
- If injected with force, some of it may flow down the clients throat and be aspirated into the lung
- All the rinse solution should return; if not suction the fluid to prevent aspiration

# Denture care

- Gain consent
- Assemble equipment – gloves and apron, a denture brush or toothbrush, and denture cleaner or toothpaste denture products are preferable if available as they preserve the condition of the dentures compared with toothpaste (Major, 2005);
- Assess the oral cavity as above;
- Remove dentures and partial dentures from the oral cavity;
- Clean at a sink;
- Pat dry and rinse with cold water before repositioning in patient's mouth (Hickson 2008)
- Dentures may be soaked occasionally – use specific soaking solution and follow manufacturer's instructions. Always use a dedicated denture container, carefully labelled with the patient's details.

**EYE CARE**

# Eye care

## Definition

- Eye care is the practice of assessing, cleaning or irrigating the eye and / or the instillation of prescribed ocular preparations (Stollery et al. 2005)

## Indications

- To relieve pain and discomfort
- To prevent or treat infection
- To prevent or treat injury to the eye
- To detect disease at an early
- To detect drug induced toxicity at an early stage
- To prevent damage to the cornea in sedated or unconscious patients
- To maintain contact lenses and care for false eye prostheses
- Eye care may also include patient education and health and safety advice

(Cunningham & Gould 1998; Boyd-Monk 2005; Stollery et al. 2005)

# EYE SWABBING

- Is the process of cleaning eyes with a sterile swab

## Indications

- Eye examination
- Drug instillation
- Before and after surgery
- Eye infections
- Diagnostic purposes



# EYE SWABBING

## Equipment

### Top shelf

1. Sterile dressing pack
2. Sterile cotton swab
3. Sterile 0.9% sodium chloride for irrigation or sterile water for irrigation

### Bottom shelf

- Warm bowl of water
- Medication e.g eye drops
- Receiver for dirty swabs
- Strapping

# EYE SWABBING

- Procedure
- Explain to the patient
- Wheel trolley to the bedside
- Wash hands and wear gloves
- Ask assistant to pour solution
- Dip each swab in the solution and swab the unaffected eye from the inner canthus to the outer canthus
- Repeat procedure for the other eye

# Instillation of Eye Drops

## Equipment

1. Appropriate eye drops (any preparation must be checked against the prescription)
2. Cotton swab
3. If infection present, gloves may be used.

# Tutorial problem

- John, a first year nursing student was observing how patients were lying on their hospital beds. He noted that there were many different nursing positions for different patients. John wondered why and he sought to find out this from the nursing officer in the ward.

# POSITIONING CLIENTS

# POSITIONING CLIENTS

- Positioning client in various positions is done for diagnostic and therapeutic purposes.
- Some of the reasons include promoting comfort, restoring body function, preventing deformities, relieving pressure, preventing muscle strain, restoring proper respiration and circulation and giving nursing treatment.

# GUIDELINES FOR POSITIONING

## Positioning the Client for Comfort

- Maintain functional client body alignment.
- Maintain client safety.
- Reassure the client to promote comfort and cooperation.
- Properly handle the client's body to prevent pain or injury.
- Follow proper body mechanics.
- Obtain assistance, if needed to move heavy or immobile clients.
- Follow specific orders.
- Do not use special devices (e.g. Splints, traction) unless ordered for examination and treatment

# Positioning patients

Outcomes of safe and appropriate positioning should include:

- Optimal exposure of the surgical site
- Airway management, ventilation and monitoring access for the anesthesia care provider
- Physiologic safety for the patient
- Maintenance of patient dignity by controlling unnecessary exposure



# POSITIONING PATIENTS

Horizontal Recumbent Position - This position is required for most of the physical examinations. The client lies on the back with the legs extended. The arms are placed, folded on the chest, or along side the body.

# Horizontal Recumbent Position



# Dorsal recumbent position

- Dorsal recumbent position -used for variety of examinations and procedures. The client lies on the back, with the knees flexed and the soles of the feet flat on the bed.

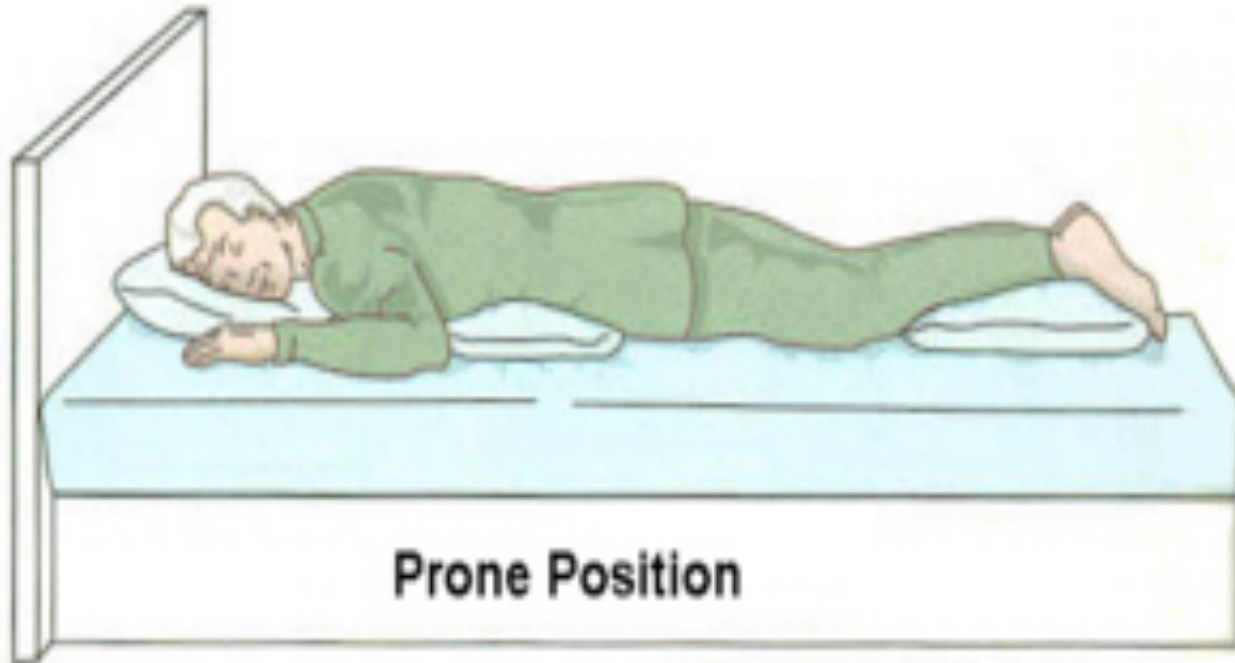
# Dorsal recumbent position



# POSITIONING PATIENTS

Prone Position: - is used to examine the spine and back. The client lies on the abdomen with head turned to the side for comfort.

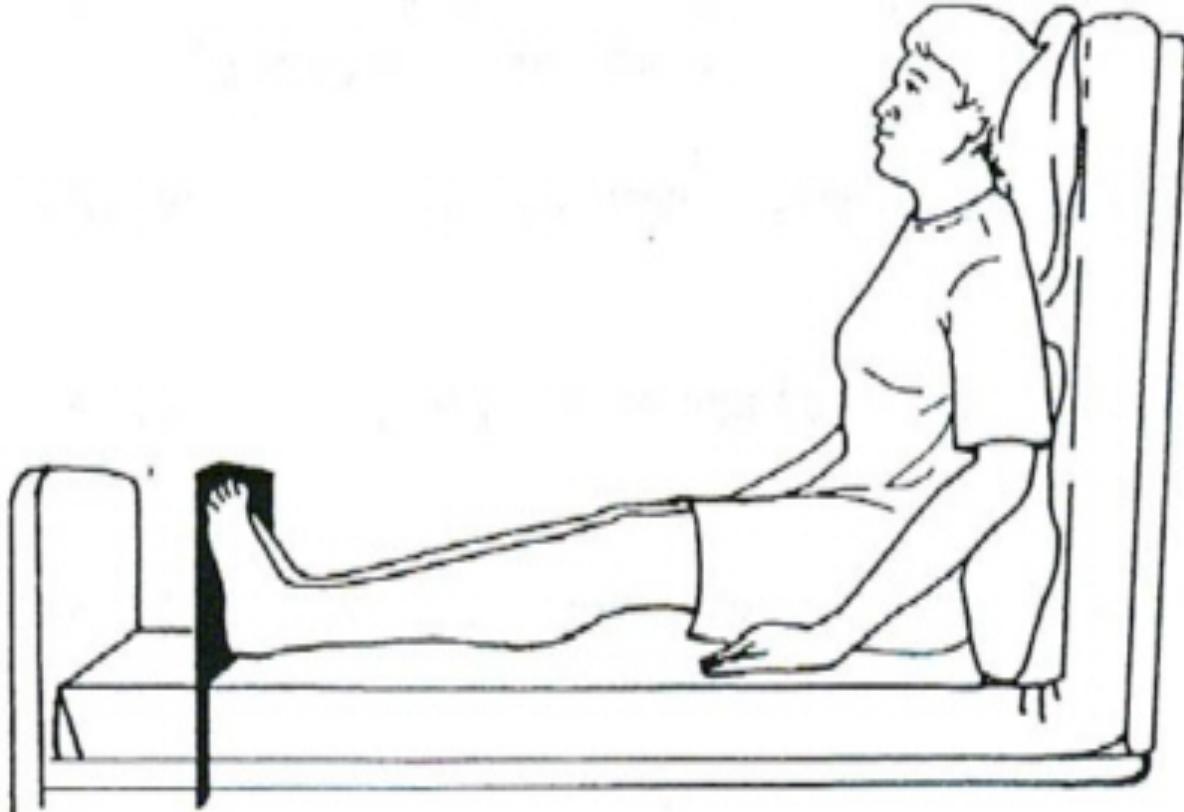
# Prone position



# POSITIONING PATIENTS

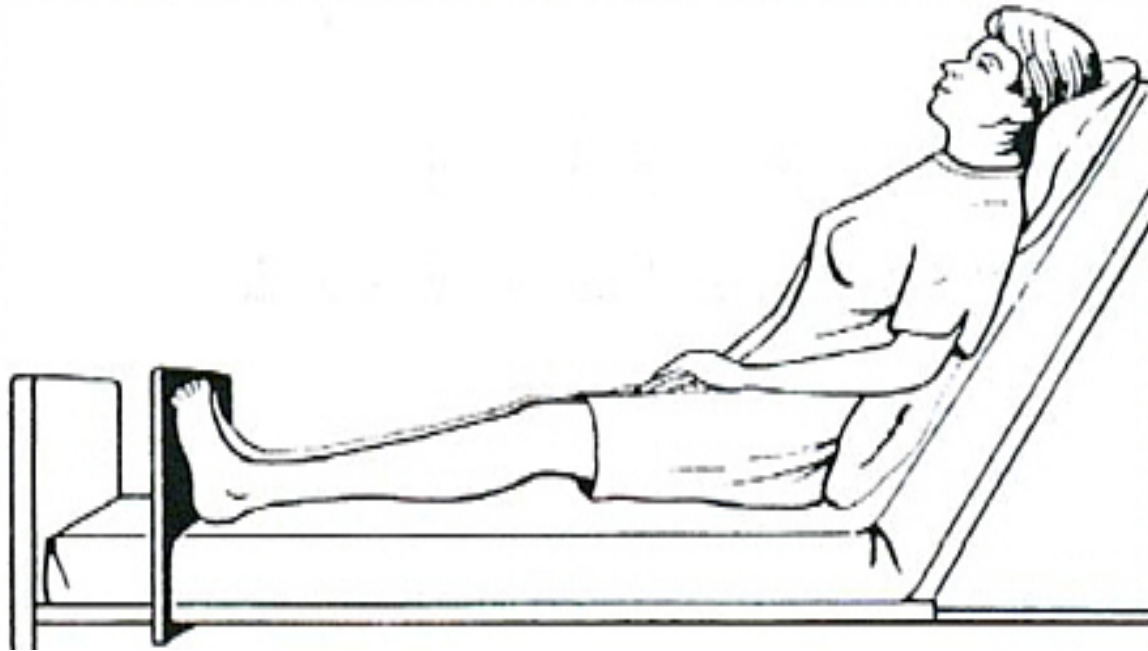
- Fowler's Position: - this position is used to promote drainage or to make breathing easier. Adjust the head rest to the desired height, and raise the bed section under the client's knees.

# Fowler's position





# Semi-fowler's position



# Orthopnoeic position



**Orthopneic position.**

- **Dorsal Lithotomy Position:** - is used for examination of pelvic organs. It is similar to dorsal recumbent position, except that the client's legs are well separated and the knees are a cutely flexed.

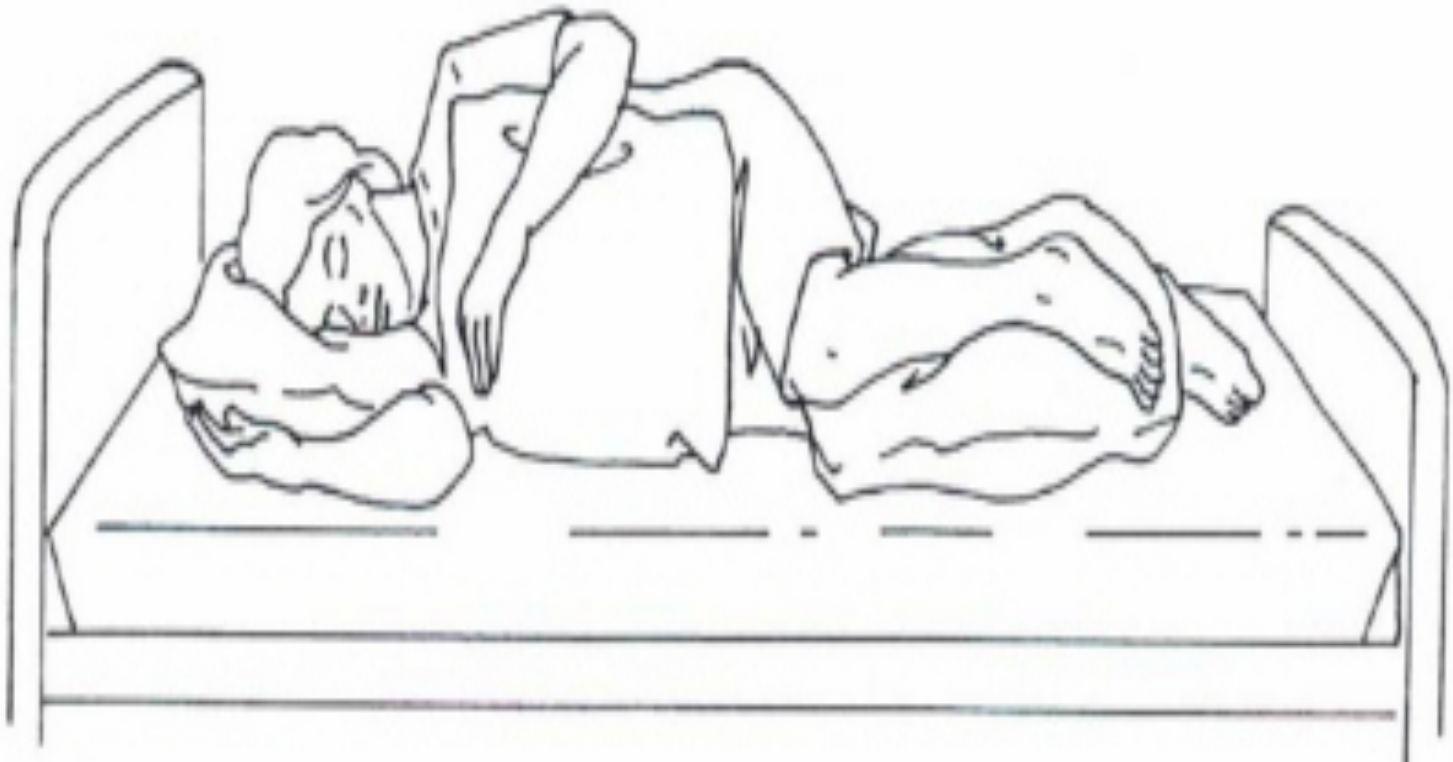
# Lithotomy position



# Lateral position

- The patient is turned to rest on one side of his or her trunk.
- Right lateral is right side down for a left sided procedure
- Left lateral is left side down for a right sided procedure
- USED for: Surgical access to the hemithorax, kidney, retroperitoneal space among others.

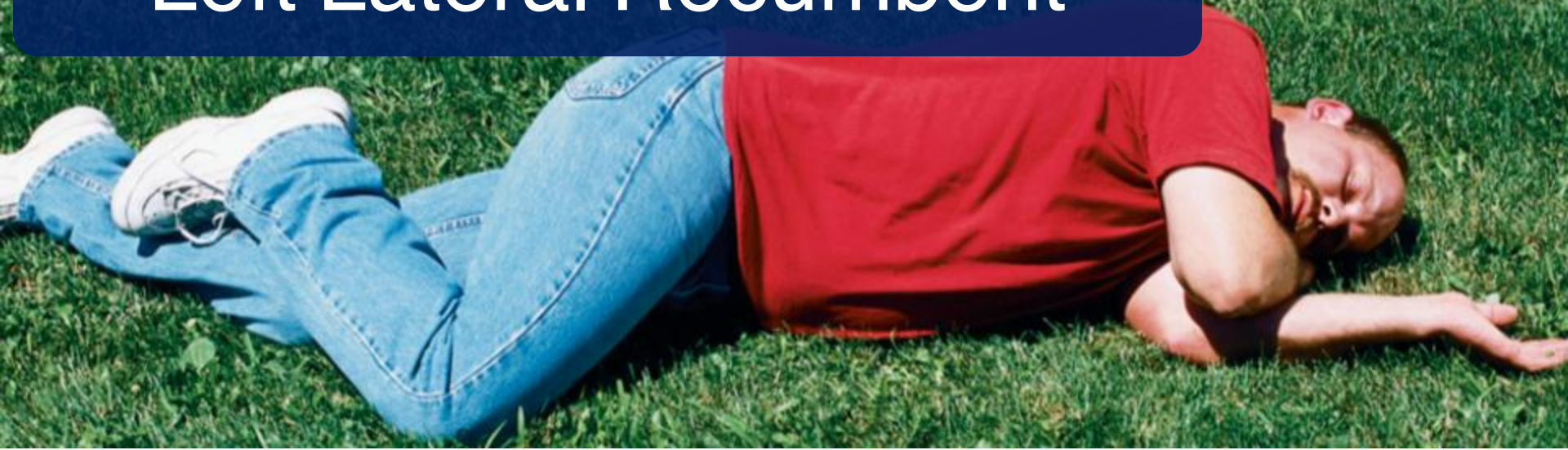
# Lateral position



# Lateral recumbent position

- The lateral recumbent position, also known as the “recovery position,” is used so you can easily monitor the airway.
- The patient is lying on his left or right side with the upper leg flexed towards the abdomen and the upper hand resting on the head.

Left Lateral Recumbent



Right Lateral Recumbent

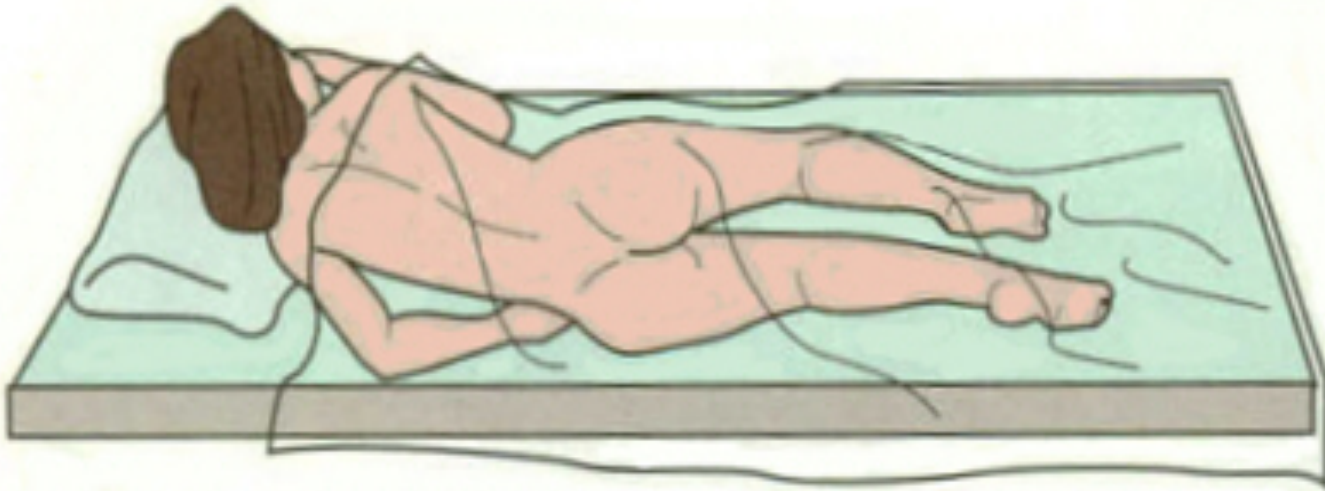




# Sims' position

- Sims' Position: - This position is used for rectal examination, treatments and enemas.
- The client rests on the left side, usually with a small pillow under the head. The right knee is flexed against the abdomen, the left knee is flexed slightly, the left arm is behind the body, and the right arm is in a comfortable position.

# Sim's position



**Sim's position.**

# POSITIONING PATIENTS

## Knee-Chest or Genu-Pectoral

- Place patient in the prone position, then assist her to kneel so that her weight rests on her chest and knees. Turn head to one side and flex her arms at the elbows extending, then to the bed in front of her. Be sure the thighs are perpendicular to the level of the head. Watch pulse and general condition of the patient.

# Knee [?] chest (genu-pectoral)

Knee-chest (genupectoral)



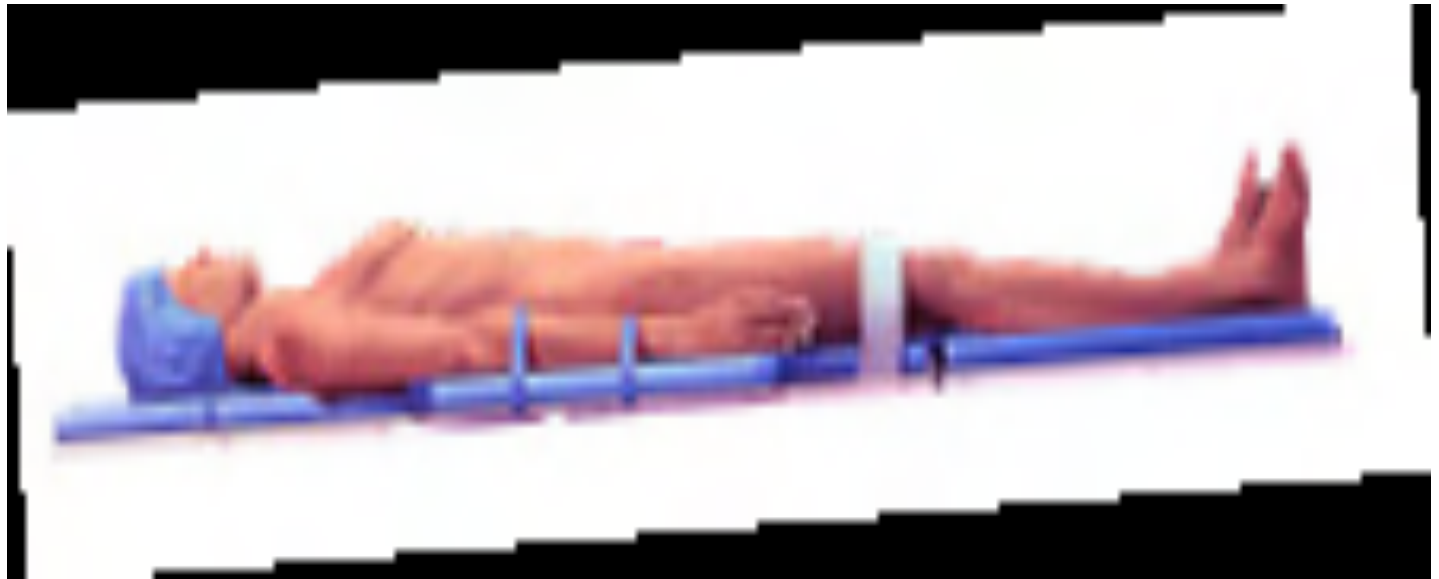
## Purpose:

- To obtain better exposure of the vagina, cervix, and rectum.
- To examine the bladder.
- To help correct retroversion of the uterus.
- To administer caudal and sacral anesthesia.
- Vaginal and rectal examinations.
- Operative procedures on the vagina, rectum and perineum. Operative deliveries

# Trendelenburg position (Head tilt-down)

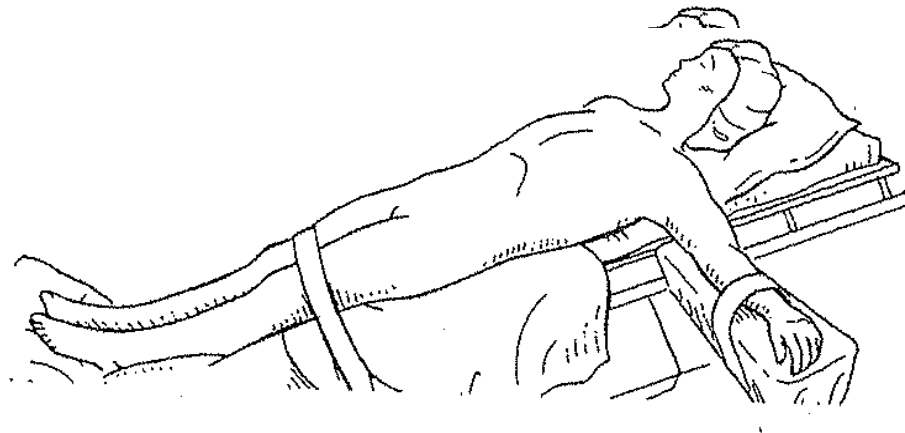
- In the Trendelenburg position, the body is laid flat on the back (supine position) with the feet higher than the head by 15-30 degrees.
- This is a standard position used in abdominal and gynecological surgery.

# Trendelenburg position (Head tilt- down)



# Reverse Trendelenburg

- The entire operation bed is tilted so the head is higher than the feet
- Used for head and neck procedures
- Facilitates exposure, aids in breathing and decreases blood supply to the area
- A padded footboard is used to prevent the patient from sliding toward the foot





**BODY  
MECHANICS  
AND MOBILITY**

# BODY MECHANICS AND MOBILITY

Body Mechanics: is the effort; coordinated, and safe use of the body to produce motion and maintain balance during activity.

## Proper Body Mechanics

- Use of safest and most efficient methods of moving and lifting is called body mechanics. This means applying mechanical principles of movements to the human body.

# Basic Principles of body mechanics

1. It is easier to pull, push, or roll an object than to lift it. The movement should be smooth and continuous, rather than jerky.
2. Often less energy or force is required to keep an object moving than it is to start and stop it.
3. It takes less effort to lift an object if the nurse works as close to it as possible. Use the strong leg and arm muscles as much as possible. Use back muscles, which are not as strong, as little as possible. Avoid reaching.
4. The nurse rocks backward or forward on the feet and with his or her body as a force for pulling or pushing.

# Basic Principles of body mechanics

5. Plan the move or transfer carefully. Free the surrounding area of obstacles and move the required equipment near the head or foot of the bed.
6. Obtain assistance of other people or use mechanical devices
7. Adjust the working area to waist level and keep the body close to the area, elevate adjustable beds.
8. Always face the direction of the movement
9. Start any body movement with proper alignment

# Basic Principles of body mechanics

10. Before moving an object, increase stability by widening your stance and flexing your knees, hips and ankles.
11. Avoid working against gravity. Push, pull, roll or turn objects instead of lifting them.
12. Use your gluteal and leg muscles rather than sacrospinal muscles of the back to exert an upward thrust when lifting
13. When pushing an object, enlarge the foot of support by moving the front foot forward.
14. When moving objects, hold them as close as possible to your centre of gravity. The person's center of gravity located in the pelvic area.

# Body Mechanics

## Safety Precautions

- Using specific methods to lift large weights without injury
  - Safety Precautions
    - Use legs, not back to lift
      - Largest bone/muscle group
    - Keep weight close to body
      - Shifts center of gravity to patient
      - More leverage



# LIFTING PATIENTS

# Lifting consideration

- Consider the weight of object/ patient.
- Communicate with partner.
- Identify the need for help before lifting.
- Have a plan



# Guidelines for Safe Lifting

1. Consider the weight of the patient together with the weight of the stretcher or other equipment being carried and determine if additional help is needed.
2. Know your physical ability and limitations. Know your combined ability with your partner. If absolutely necessary, you can ask bystanders to help.
3. Lift without twisting. Avoid any kind of swinging motion when lifting as well.

# Guidelines for Safe Lifting

4. Position your feet shoulder width apart with one foot slightly in front of the other.
5. Communicate clearly and frequently with your partner. Decide ahead of time how you will move the patient and what verbal commands will be used. Also, tell the patient what you will be doing ahead of time. A startled patient may reach out or grab something and cause a loss of balance.

# Guidelines for Carrying Patients

- Whenever possible, move patients on devices that can be rolled.
- Minimize the distance needed to carry patients
- Work in a coordinated manner with your partner.
- Keep the weight as close to your body as possible.
- Keep your back in a locked-in position and refrain from twisting.
- Flex at the hips, NOT the waist, and bend at the knees.
- Do not hyperextend your back (do not lean back from the waist).
- Try to lift with a partner that has similar height and strength.

# Steps of proper lifting

- Let your legs do the work
- Pick the object up, from between your knees. Keep the load close to your body and then stand up, using your leg muscles. Keep your back as straight as possible and tighten your abdominal muscles as you rise from the floor
- Avoid twisting
- When you're standing and ready to move, hold the load close to your body to lessen the strain on your lower back. Avoid turning or twisting while holding the load. Turn by pivoting your feet, not your back. Avoid lifting heavy loads above your waist

# Equipment for Moving Patients

## Wheeled Stretcher

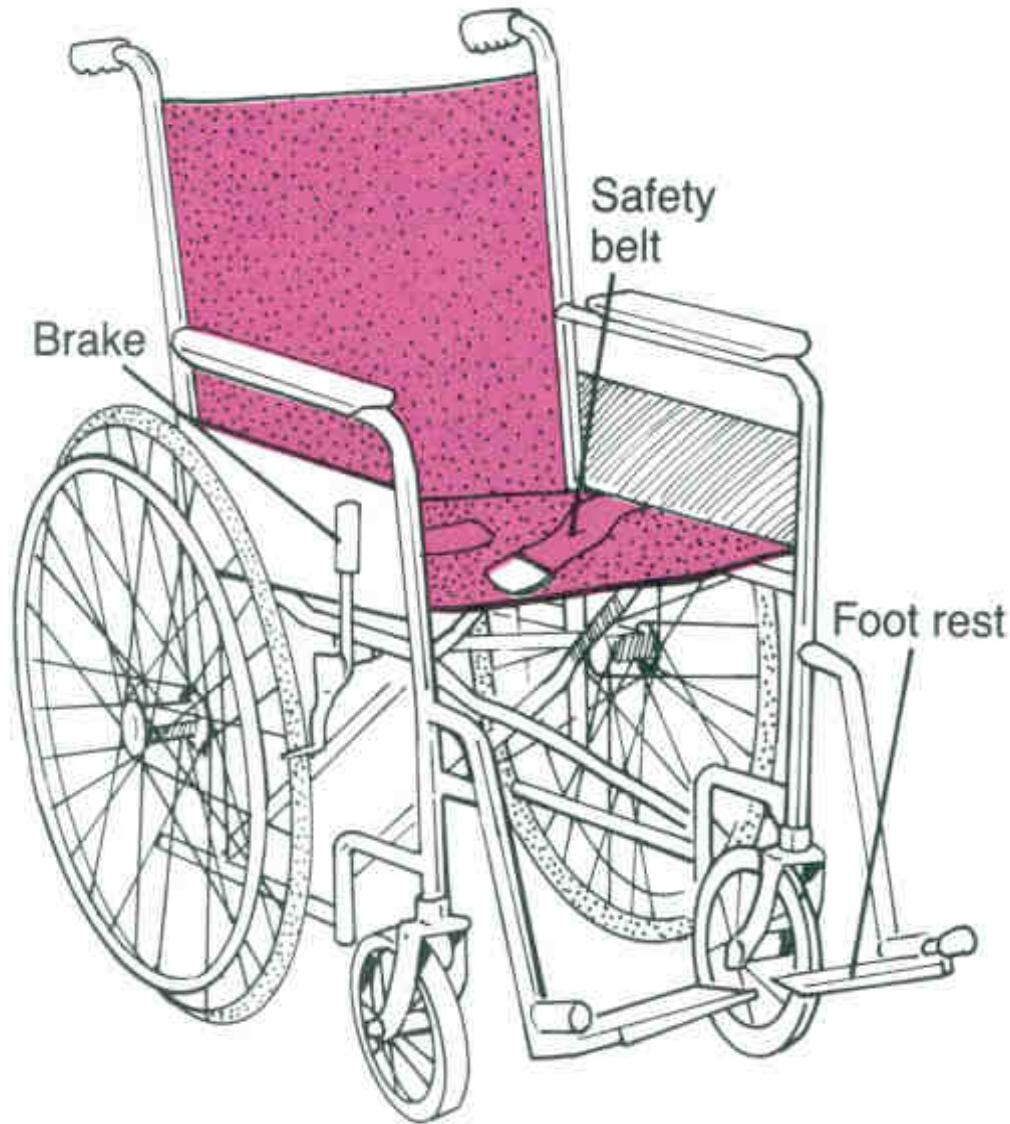
- Stretchers are usually adjustable to different heights and different angles. Some can be adjusted to elevate the legs (Trendelenberg position). Additional equipment may be attached to the stretchers including oxygen, IV lines, and cardiac monitors or defibrillators.



*Guidelines for transferring a patient by stretcher:*

- Push the stretcher with the patient's feet forward.
- Pull it head-first into elevators.
- Pull it feet-first down ramps.
- Never leave a patient on a stretcher unattended.

# SAFETY MEASURES WITH WHEELCHAIRS



- ALWAYS LOCK THE BRAKES WHEN TRANSFERRING
- CLEAN THE WHEELCHAIR ON A REGULAR BASIS
- MOVE THE FOOTRESTS OUT OF THE WAY WHEN TRANSFERRING

# Transferring a Patient Between Chair and Bed

Your patients may need to be transferred between the bed and a chair or wheelchair. Remember the following points:

- The patient should wear footwear with nonskid soles to avoid slipping.
- Always get help if the patient is unable to assist or is very heavy. Encourage the patient to help, however, whenever possible.
- If you are moving a patient to a vinyl-covered chair, cover the seat and back with a bath blanket. This will make the patient more comfortable by absorbing perspiration. Placing a pillow on the seat will serve the same purpose.
- Determine if the patient has a weaker side. If so, allow the patient to lead with the strong side. Make sure the patient can see the chair or bed that you are transferring to.
  - DO NOT ALLOW THE PERSON TO PUT HIS ARMS AROUND YOUR NECK
  - MAKE SURE YOU LOCK THE WHEELS ON THE BED AND WHEELCHAIR



# ASSISTING THE PATIENT TO TRANSFER



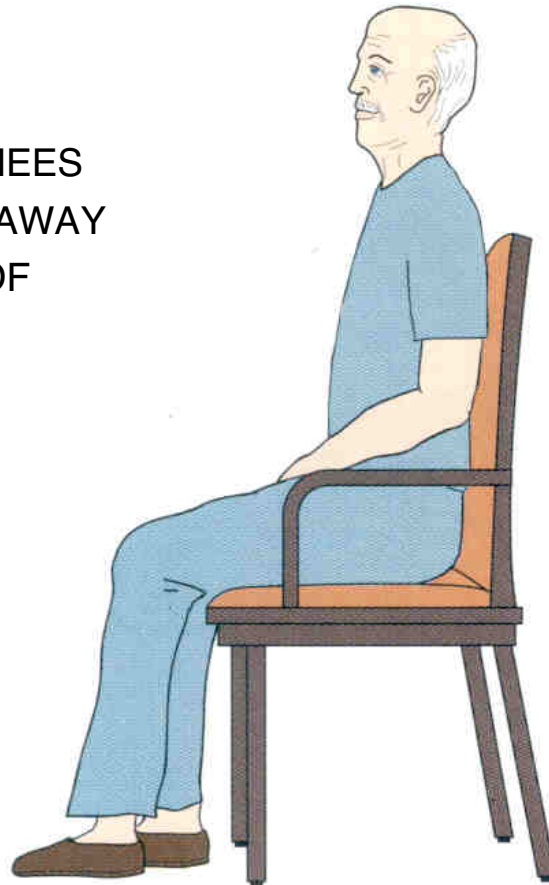
# PROPER POSITIONING IN A CHAIR

THE PATIENT IN A CHAIR SHOULD SIT UP STRAIGHT

THE BACKS OF HIS KNEES  
SHOULD BE SLIGHTLY AWAY  
FROM THE SEAT OF  
THE CHAIR

HIS LOWER BACK SHOULD  
REST AGAINST THE BACK OF  
THE CHAIR

HIS FEET SHOULD EITHER  
REST ON THE FLOOR OR  
ON A STOOL



# WHEELCHAIRS:

- A. Make sure the chair is locked when removing or seating the person.
- B. Pull the wheelchair backwards up steps or curbs.
- C. Adjust the height of the foot pedals so the person is sitting at a 90 degree angle at the hip and knee.

# Modes of Lifting patients

- Through arm wrist crossed over grip
- Thumb through grip
- Shoulder blade grip

# ASSISTING A PATIENT TO MOVE UP IN BED

## IF THE PATIENT CAN ASSIST:

- HAVE THE PATIENT GRASP THE HEADBOARD AND BEND HIS KNEES
- PLACE YOUR FOREARMS UNDER HIS SHOULDERS AND KNEES
- LIFT AT THE COUNT OF THREE



# MOVING UP IN BED

IF THE PATIENT HAS A TRAPEZE ON THE BED HAVE THE PATIENT GRASP THE TRAPEZE AND BEND AT THE KNEES



# USING A LIFT SHEET

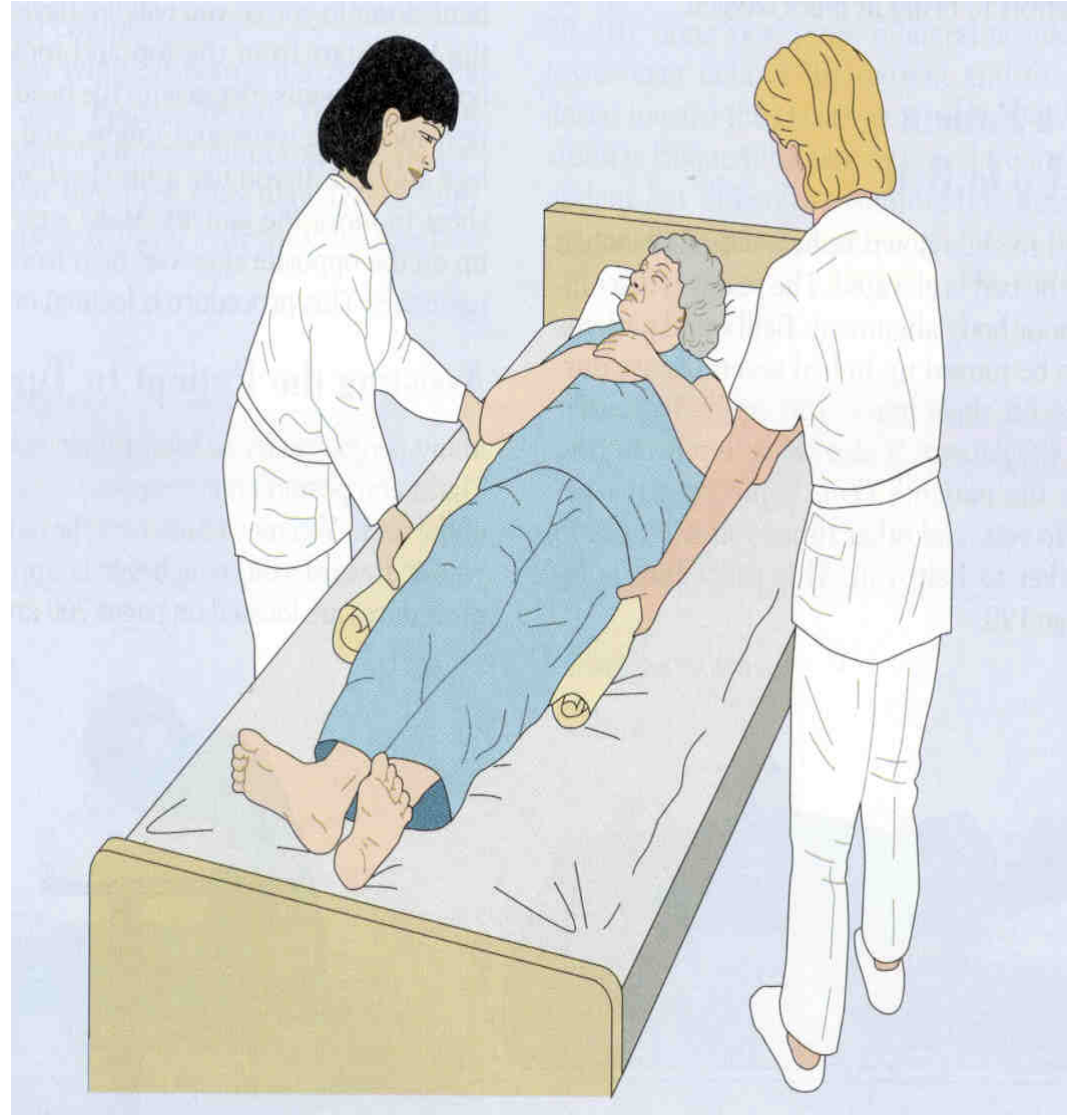
A LIFT SHEET MAKES LIFTING EASIER

HELPS PREVENT FRICTION AGAINST  
THE PATIENT'S SKIN

TAKES TWO WORKERS TO LIFT

IF PATIENT CAN HELP HAVE HIM  
BEND HIS KNEES

USE FOR PERSONS WHO CAN NOT  
HELP WITH THE MOVE



# Patient mobility

## Assistive Devices

Clients who are unable to ambulate independently can use devices designed to help them walk safely.

Determination of which device to use is based on:

- Upper arm strength
- Endurance (stamina)
- Presence or absence of one-sided weakness
- Weight-bearing ability



# TURNING PATIENTS

# Reasons for turning frequently

- Provides exercise for muscles
- Stimulates circulation
- Helps prevent decubitis ulcers and contractures
- Provides comfort to the patient

# TURNING THE ADULT PATIENT

## General Principles for Turning the Adult Patient.

- Sometimes the physician will specify how often to turn a patient.
- A schedule can be set up for turning the adult patient throughout his "awake" hours.
- The patient should be rotated through four positions (unless a particular position is contraindicated)
- Record the position change each time to ensure that all positions are used.

# TURNING THE ADULT PATIENT

One example of a schedule for turning would be:

- 10 a.m Prone position
- 12 p.m. Left Sim's position
- 2 p.m Supine position
- 4 p.m. Right Sim's position
- 6 p.m. Prone position

# TURNING THE ADULT PATIENT

Certain conditions may make it impossible to turn the patient.

- Turning may be impossible if the patient has fractures that require traction appliances.
- Turning may be harmful to patients with spinal injuries.

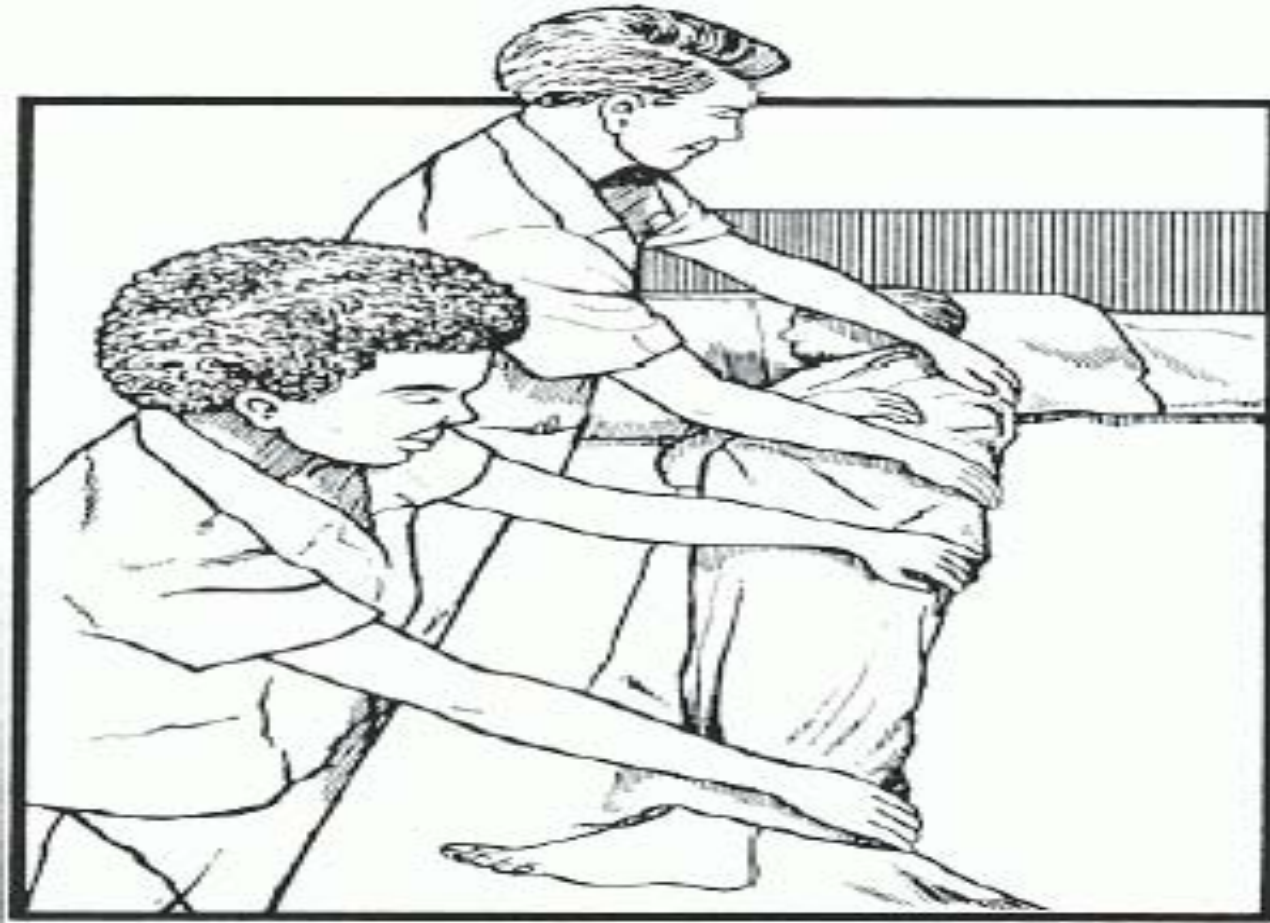
In these cases, you need to rub the back by lifting the patient slightly off the bed and massaging with your hand held flat.

# TURNING THE ADULT PATIENT

## Logrolling

- Logrolling is a technique used to turn a patient whose body must at all times be kept in a straight alignment (like a log).
- This technique is used for the patient who has a spinal injury.
- Logrolling is used for the patient who must be turned in one movement, without twisting.
- Logrolling requires two people, or if the patient is large, three people.

# TURNING THE ADULT PATIENT



# TURNING THE ADULT PATIENT

## Technique.

- Wash your hands.
- Approach and identify the patient (by checking the identification band) and explain the procedure (using simple terms and pointing out the benefits).
- Provide privacy.
- Position the bed.
- The bed should be in the flat position at a comfortable working height.
- Lower the side rail on the side of the body at which you are working. Position yourself with your feet apart and your knees flexed close to the side of the bed.
- Fold the patient's arms across his chest.



# TURNING THE ADULT PATIENT

- Place your arms under the patient so that a major portion of the patient's weight is centered between your arms. The arm of one nurse should support the patient's head and neck.
- On the count of three, move the patient to the side of the bed, rocking backward on your heels and keeping the patient's body in correct alignment.
- Raise the side rail on that side of the bed.
- Move to the other side of the bed.
- Place a pillow under the patient's head and another between his legs.
- Position the patient's near arm toward you.

# TURNING THE ADULT PATIENT

- Grasp the far side of the patient's body with your hands evenly distributed from the shoulder to the thigh.
- On the count of three, roll the patient to a lateral position, rocking backward onto your heels.
- Place pillows in front of and behind the patient's trunk to support his alignment in the lateral position.
- Provide for the patient's comfort and safety.
- Position the call bell.
- Place personal items within reach.
- Be sure the side rails are up and secure.
- Report and record as appropriate.

# TRANSFERS

- Patients transferred to wheelchairs, chairs, and stretchers
- Correct procedures must be followed to prevent injury to both patient and worker

# MECHANICAL LIFTS

- Frequently used to transfer weak or paralyzed patients
- Check straps, clasps, and sling for any defects
- Use smooth even movements while operating lift
- Reassure frightened patients that lift is safe
- Move unnecessary furniture out of the way during transfers
- Particularly important in home care situations

# VITAL SIGNS

# VITAL SIGNS

- Vital or cardinal signs are temperature, pulse, respiration and blood pressure.
- Monitoring a client's vital signs should not be an automatic or a routine procedure; it should be a thoughtful, scientific assessment.
- When and how often to assess a specific client's vital signs are chiefly nursing judgments, depending on the client's health status.

# VITAL SIGNS

- Vital signs are objective measurements of the patient's most basic body function.
- A change in vital signs can be a strong indicator of a decline in the patient's health status.
- When a nurse observes a patient's abnormal vital signs, the nurse must precisely document the specific variation, such as fever, blood pressure spike, or depressed respiration, and also the specific action taken to address the condition.

# VITAL SIGNS

- Observation is “looking and listening to the subjective and objective information that the patient provides”

## The vital role of nurses

- not just data collectors
- Interpreters of multiple and complex patient data gathered in context of the whole picture presented by the patient



# TIME TO ASSESS VITAL SIGNS

- On admission to provide a baseline which can be compared with subsequent measurements, thereby providing objective data and trends.
- When a client has a change in the health status or reports symptoms such as chest pain.
- Before and after surgery or an invasive procedure
- Before and/ or after administration of medication
- Before and after any nursing intervention that could affect the vital signs e.g ambulating a client who has been on bedrest.

# Observation chart

HMR 200A (090-0007)

S.M.H. HOSPITAL

## T.P.R. & B.P. CHART

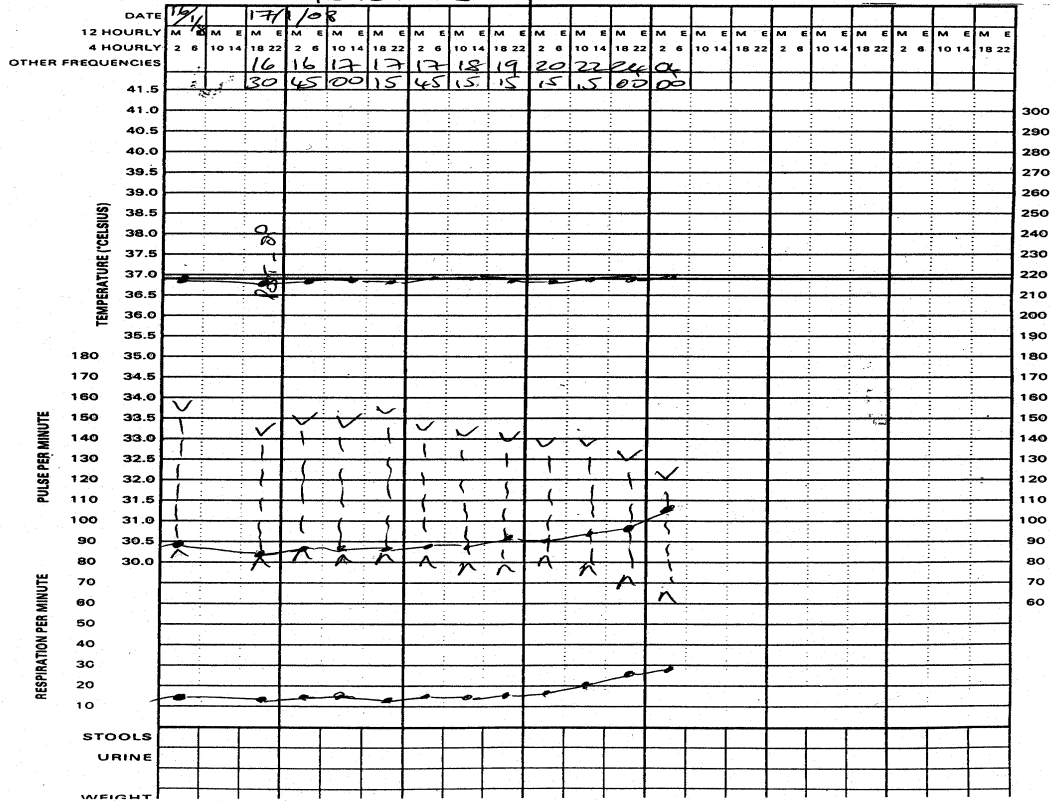
UNIT NO 2222111

Name JONES, SUEAN  
(Surname First)

Address 24 MARIGOLD WAY

Date of Admission: 16.01.08

Date of Birth 28.06.35



BLOOD PRESSURE mmHg

desal made UK for Tacelus Solutions, NED01400, 03/01

# Observation chart

HSEB 2054 (989-0003)		UNIT NO <u>11122112</u>
..... <u>Smit</u> ..... HOSPITAL		Name <u>BROWN, BEN</u> (Surname First)
T.P.R. & S.P. CHART		Address <u>TWE FLATS</u>
Date of Admission: <u>04.01.03</u>		Date of Birth <u>04.07.30</u>

DATE	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03	04/01/03
12 HOURLY	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136
4 HOURLY	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66
OTHER FREQUENCIES	<u>2</u>	<u>12</u>	<u>23</u>	<u>06</u>	<u>10</u>												
TEMPERATURE (CELSIUS)	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>	<u>37.5</u>
PULSE PER MINUTE	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>	<u>80</u>
RESPIRATION PER MINUTE	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>	<u>20</u>
SP. O <sub>2</sub> %	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>	<u>98</u>
URINE	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

**TEMPERATURE**

# TEMPERATURE

The system that regulates body temperature has three main parts:

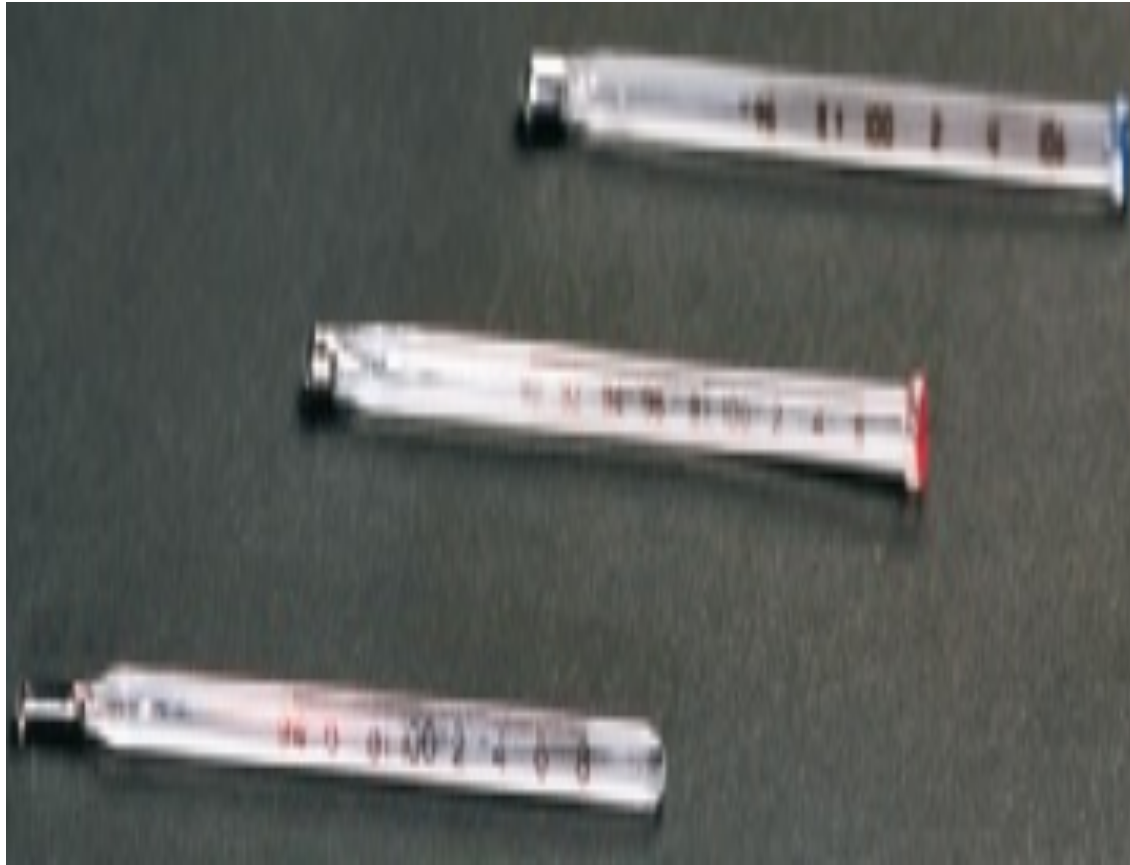
- Sensors in the skin
- An integrator in the hypothalamus
- An effector system that adjusts the production and loss of heat.

# Types of thermometers

Several types of thermometers

1. Electronic/Digital
2. Mercury, Glass

# Glass mercury/ digital thermometers



# Care of clinical thermometer

- consists of glass tube
- should be immersed in antiseptic solution to prevent infection
- Shake it before using it to bring the mercury down.
- Never hold the thermometer at the bulb, because the hand may cause inaccurate reading.
- Cleaning the thermometer with hot water should be avoided since, it will cause mercury to expand more and may break the thermometer.



# Factors affecting body temperature

- Age - As people age they become more sensitive to extremely hot or cold environments, which can affect body temperature
- Diurnal variations (circadian rhythms) - in health, a person's temperature fluctuates throughout the day
- Exercise - increases heat production, which results in an increased body temperature.
- Hormones - During ovulation, for example, women's temperatures can be raised
- Stress
- Environment - Environmental climates where individuals are exposed to extreme temperature conditions may result in them developing heat stroke or hypothermia.
- Hot and cold food and drink may affect temperature

# Methods

- Axillary, under the armpit. This method provides the least accurate results.
- Orally, under the tongue. This method is never used with infants or very young children because they may accidentally bite or break the thermometer.
- Rectally, inserted into the rectum. This method provides the most accurate recording of the temperature. It is most often used for infants.
- Tympanic, in the tympanic membrane. Used mostly for infants

# Taking temperature

## Tympanic

- Tympanic thermometers are inserted in the ear canal
- A disposable ear tip should be used

## Oral

Do not use an oral thermometer for an individual, who has a history of seizures, breathes through his or her mouth, has just had oral surgery, or is unconscious.

# Taking temperature

- Oral temperatures
  - Wait at least 15 minutes after eating, drinking, or smoking
  - Place under tongue in either pocket just off-center in lower jaw
- Tympanic temperatures
  - Proper technique essential
  - Adult – pull ear up and back
  - Child – pull ear down and back
  - Fast, easy to use, and preferred in pediatric offices

# Taking temperature



# Oral / Rectal temperature



# Taking temperature

- Rectal temperatures
  - Standard precaution – gloves
  - Patient is positioned on side (left side preferred) or stomach
  - Lubricate tip of thermometer
  - Slowly and gently insert tip into anus
    - ½ inch for infants
    - 1 inch for adults
  - Hold thermometer in place while temperature is taken

# Taking temperature

- Axillary temperatures
  - Place patient in seated or lying position
  - Place tip of thermometer in middle of axilla with shaft facing forward
  - Probe must touch skin on all sides
- Temporal temperatures
  - Temporal scanner
  - Noninvasive, quick
  - Stroke scanner across forehead, crossing over the temporal artery



# Temporal scanner



# Reading temperatures

1. By degree
2. Place thermometer at eye level and look for silver line of mercury
3. Never place fingers on bulb of thermometer as this might change the value

# Reading temperature

- A normal body temperature taken orally is 98.6°F (37°C), with a range of 97.8–99.1°F (36.5–37.2°C).
- A fever is a temperature of 101°F (38.3°C) or higher in an infant younger than three months or above 102°F (38.9°C) for older children and adults.
- Hypothermia is recognized as a temperature below 96°F (35.5°C).

# Converting celcius to farenheight

- $^{\circ}\text{F}$  to  $^{\circ}\text{C}$  Deduct 32, then multiply by 5, then divide by 9
- $^{\circ}\text{C}$  to  $^{\circ}\text{F}$  Multiply by 9, then divide by 5, then add 32
- Fahrenheit to Celsius  $(^{\circ}\text{F} - 32) / 1.8 = ^{\circ}\text{C}$
- Celsius to Fahrenheit  $^{\circ}\text{C} \times 1.8 + 32 = ^{\circ}\text{F}$

# Alterations in body temperature

- PYREXIA
  - Intermittent – the body alternates at regular intervals between periods of fever, normal and subnormal temperatures.
  - Remittent – wide range of temperature fluctuation within 24 hr period, all of which are above normal.
  - Relapsing – short febrile periods of a few days are interspersed with periods of 1 or 2 days of normal temperature.
  - Constant – the body temperature fluctuates minimally but always remains above normal.

# Clinical signs of fever

- Onset (cold or chill stage)
  - Increased heart rate
  - Increased respiratory rate and depth
  - Shivering
  - pallid, cold skin
  - Complaints of feeling cold
  - Cyanotic nail beds
  - “gooseflesh” appearance of the skin
  - Cessation of sweating

# Clinical signs of fever

- Course
  - Absence of chills
  - Skin that feels warm
  - Photosensitivity
  - Increased pulse and respiratory rate
  - Increased thirst
  - Mild to severe dehydration
  - Drowsiness, restlessness, delirium or convulsions
  - Loss of appetite
  - Malaise, weakness and aching muscles

# Clinical signs of fever

- Defervescence (fever drop)
  - Skin that appears flushed and feels warm
  - Sweating
  - Decreased shivering
  - Possible dehydration



# NURSING INTERVENTIONS FOR CLIENTS WITH FEVER

- Monitor vital signs
- Assess skin colour and temperature
- Monitor WBC, hematocrit value and other pertinent laboratory reports for indications of dehydration or infections
- Remove excess blankets when the client feels warm
- Provide adequate nutrition and fluids to meet increased metabolic demands to prevent dehydration

# NURSING INTERVENTIONS FOR CLIENTS WITH FEVER

- Measure intake and output
- Reduce physical activity to limit heat production
- Administer antipyretics as ordered
- Provide oral hygiene to keep the mucous membranes moist
- Provide tepid sponge bath to increase heat loss through conduction
- Provide dry clothing and bed linen

# Hypothermia

- Is a core body temperature below the lower limit of normal.
- The three physiologic mechanisms of hypothermia are:-
  - Excessive heat loss
  - Inadequate heat production
  - Impaired hypothalamic thermoregulation
- Hypothermia may be induced or accidental.

# Clinical signs of hypothermia

- Decreased body temperature, pulse, respirations
- Severe shivering (initially)
- Feelings of cold and chills
- Pale cool, waxy skin
- Hypotension
- Decreased urinary output
- Lack of muscle coordination
- Disorientation
- Drowsiness progressing to coma

# NURSING INTERVENTIONS FOR CLIENTS WITH HYPOTHERMIA

- Provide a warm environment
- Provide dry clothing
- Apply warm blankets
- Keep limbs close to the body
- Cover the client's scalp with a cap or a turban
- Supply warm oral or intravenous fluids
- Apply warming pads

# NURSING DIAGNOSES – Imbalanced body temperature

NURSING DIAGNOSIS	DESIRED OUTCOME	INTERVENTION
Risk for imbalanced body temperature	Hydration - amount of water in the intracellular and extracellular compartments of the body	<p>Monitor temperature every 2 hours</p> <p>Promote adequate fluid and nutritional intake</p>
hyperthermia	Thermoregulation – balance among heat production, heat gain and heat loss	<p>Monitor intake and output</p> <p>Apply ice bag covered with a towel on the groin</p> <p>Cover the patient with only a sheet</p>

**PULSE**

# PULSE

- Is a wave of blood created by contraction of the left ventricle of the heart.
- Pulse wave represents the stroke volume output and the amount of blood that enters the arteries with each ventricular contraction.
- In a healthy person, the pulse reflects the heart beat.



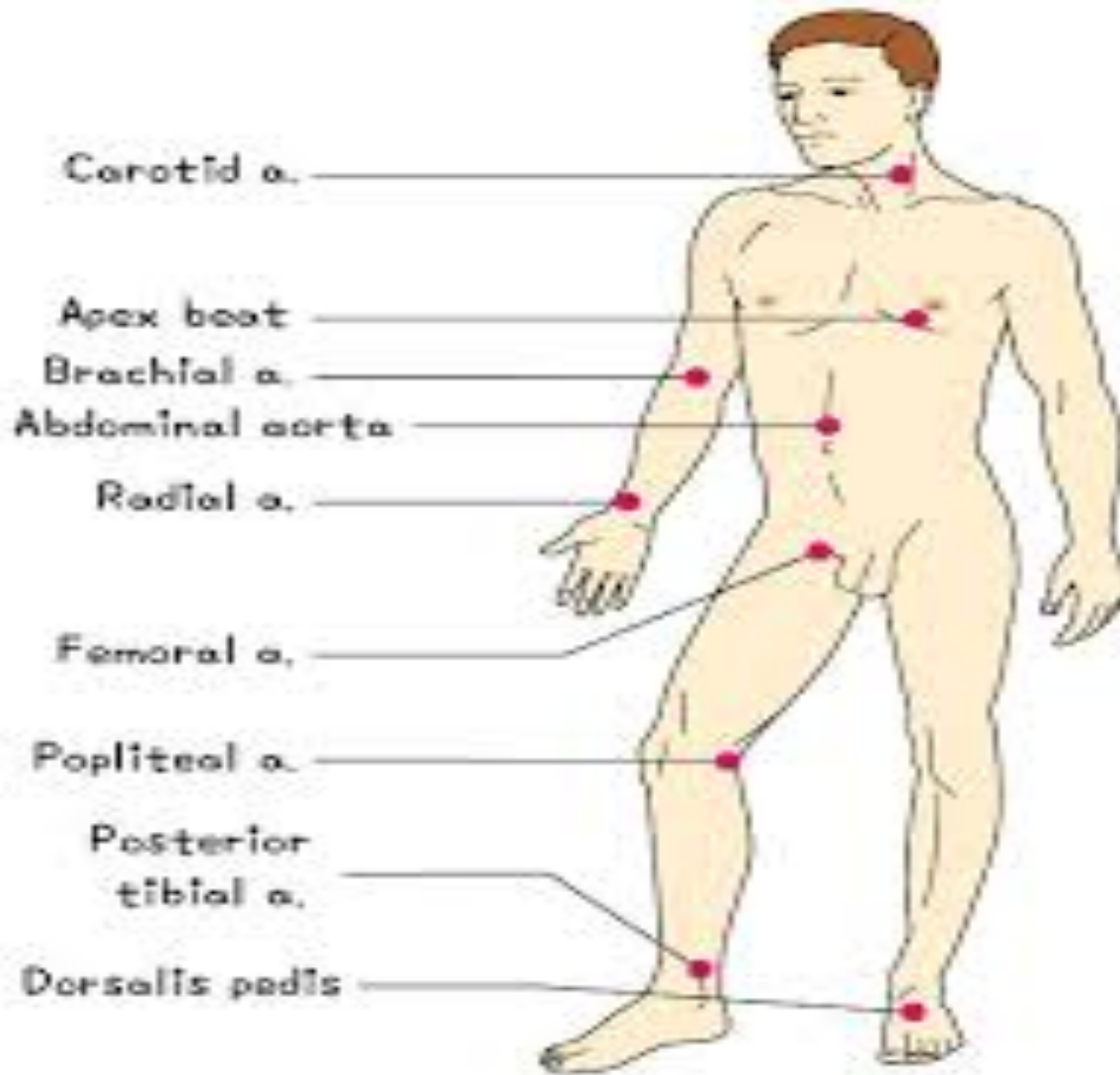
# Taking pulse

- The pulse can be recorded anywhere that a surface artery runs over a bone.
- To measure a pulse, one should place the index, middle, and ring fingers over the radial artery. It is located above the wrist, on the anterior or front surface of the thumb side of the arm.
- Gentle pressure should be applied, taking care to avoid obstructing blood flow.
- The rate, rhythm, strength, and tension of the pulse should be noted.

# Pulse Sites

- Temporal – when radial pulse is not accessible
- Carotid – in cases of cardiac arrest
- Apical – routinely for infants and children upto 3 years, determine discrepancies with radial pulse
- Brachial – to measure blood pressure
- Radial – readily accessible
- Femoral – in cases of cardiac arrest
- Popliteal – determine circulation of the lower leg
- Posterior tibial - – determine circulation of the foot
- Dorsalis pedis - – determine circulation of the foot

# Pulse Sites



# Taking pulse

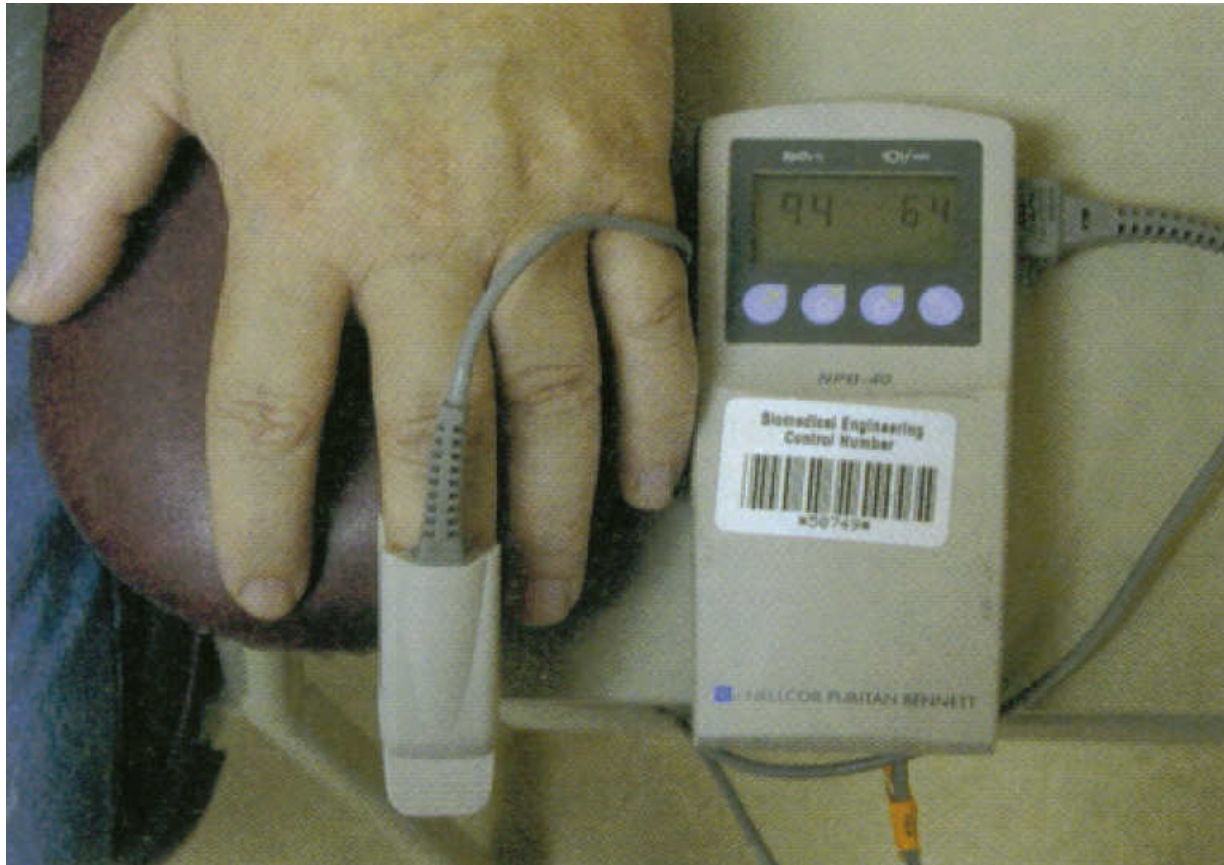
- Gently place 2 fingers on the artery.
- Do not use your thumb, because it has its own pulse that can be felt.
- Count the beats for one minute

# Taking pulse





# Pulse oximeter



# Assessment

## Strength of pulse

- weak or 1+ beats of poor force
- strong or 2+ beats of moderate force- [easily felt]
- bounding or 3+ beats of strong force
- thready-- beats are barely felt
- absent

## Rhythm

- Tachycardia- faster than 100 beats/ min
- Bradycardia-slower than 60 beats/ min
- Dysrhythmia--irregular rhythm



# FACTORS AFFECTING THE PULSE

- Age
- Gender
- Exercise
- Fever
- Medications e.g digitalis
- Hypovolaemia
- Stress
- Position changes
- Pathology

# RESPIRATIONS

# RESPIRATIONS

- Respiration is the act of breathing.
- Purpose: To Exchange  $O_2$ - $CO_2$  in lungs/ tissues
- Ventilation-movement of air in & out of lungs
- However, we count respirations

Measure:

- Rate, rhythm, depth, effort of breathing

Normal:

- Rate - 16-20/ min; regular rhythm;
- Depth- subjectively measured as shallow, normal, or deep
- Effort - no effort; unlabored.

# Respirations

- An examiner's fingers should be placed on the person's wrist, while the number of breaths or respirations in one minute is recorded.
- Every effort should be made to prevent people from becoming aware that their breathing is being checked.

# Respirations

- Respirations are quiet, slow, and shallow when the adult is asleep, and rapid, deeper, and noisier during and after activity.

Average respiration rates at rest are:

- infants, 34–40 per minute
- children five years of age, 25 per minute
- older children and adults, 16–20 per minute
- Tachypnea is rapid respiration above 20 per minute.

# Rhythms/ Breathing patterns

- Eupnea- normal rate & rhythm
- Tachypnea- rapid breathing, rate  $> 20$ /min
- Bradypnea- slow breathing, rate  $< 16$ /min
- Dyspnea- difficult or labored breathing
- Apnea- absence of breathing
- Orthopnea- inability to lie down to breathe

# FACTORS AFFECTING RESPIRATION

- Carbon Dioxide - Too much CO<sub>2</sub> increases respiration rate, because each breath pulls in oxygen and exhales carbon dioxide.
- Oxygen - oxygen concentration of the blood is monitored by small sensory organs called aortic bodies, and low oxygen concentration causes respiration rate to increase.
- Acid - Parts of the brain are very pH sensitive. Chemicals that make the blood basic are interpreted to mean that respirations should stop temporarily.

# FACTORS AFFECTING RESPIRATION

- Epinephrine - Anything that induces an adrenaline response causes breathing to become rapid.
- Acetylcholine - The neurotransmitter, acetylcholine acts to constrict airways and slow respiration. Because bringing air into the lungs is drying and because oxygen is capable of damaging cells in excess, it's best for general health if an animal doesn't breathe any more than necessary.



# BLOOD PRESSURE

# BLOOD PRESSURE

- Blood Pressure (BP) is the lateral force on the walls of artery by the pulsing blood under pressure from the heart. The heart's contraction forces blood under high pressure into the aorta.
- The peak of maximum pressure when ejection occurs is the systolic blood pressure. When the ventricles relax, the blood remaining in the arteries exerts a minimum a diastolic pressure.

# BLOOD PRESSURE

- Arterial blood pressure is the force exerted by the blood on the wall of a blood vessel as the heart pumps (contracts) and relaxes.
- Systolic blood pressure is the degree of force when the heart is pumping (contracting).
- The diastolic blood pressure is the degree of force when the hearts relaxed.

# Sphygmomanometer

Exhibit 2. Mercury-gravity manometer

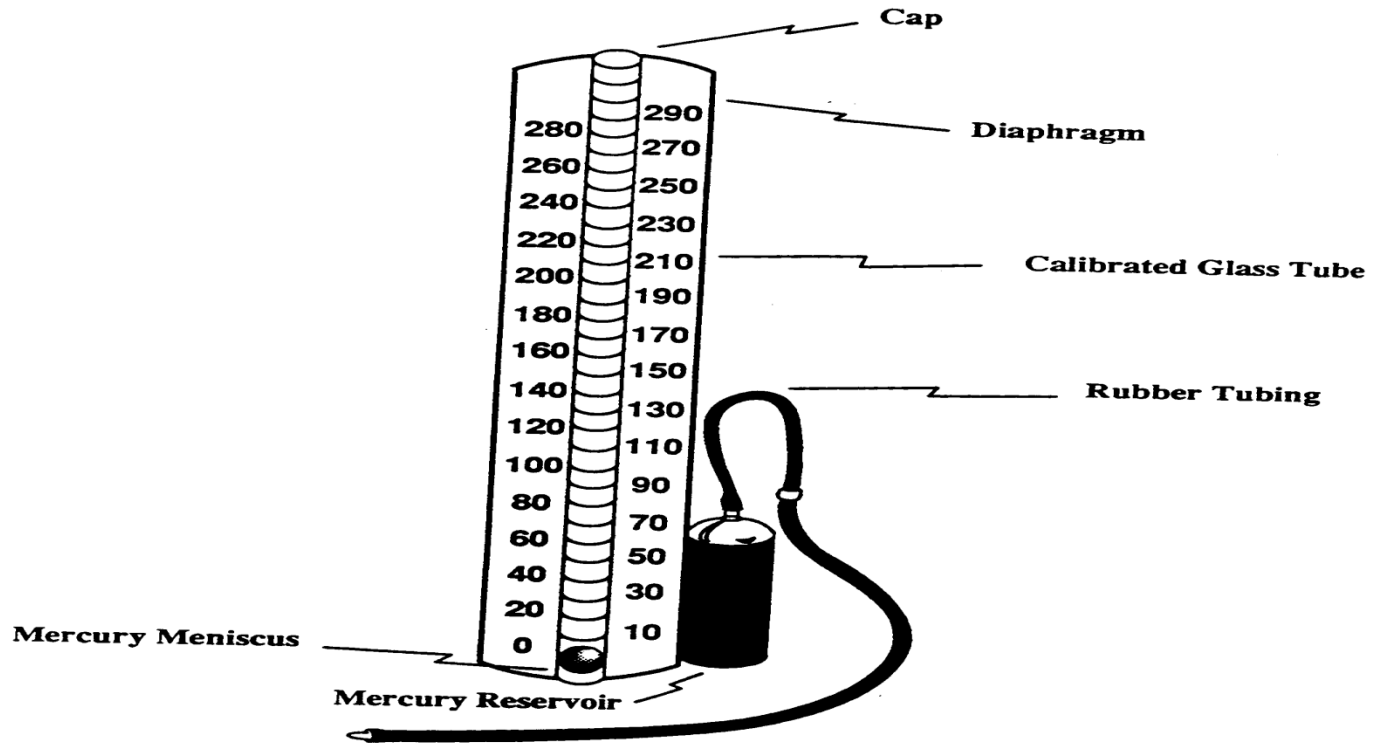
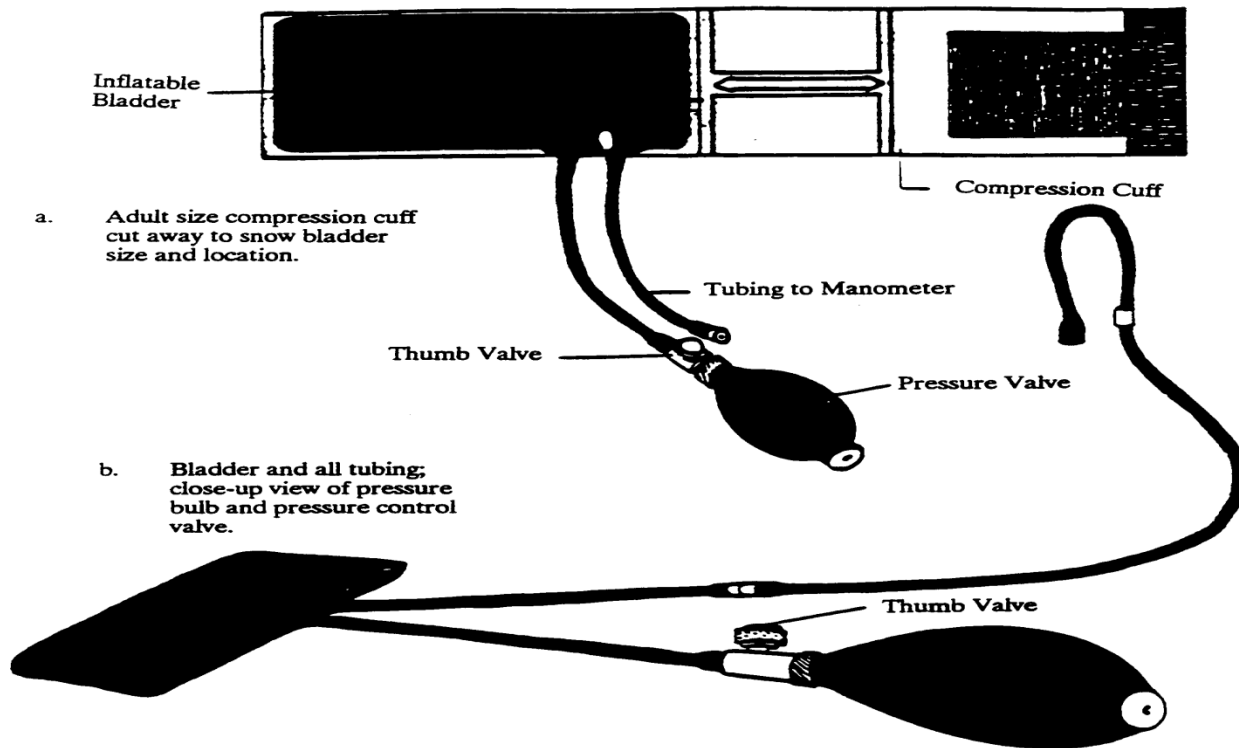


Exhibit 3. Inflation system



A mercury column sphygmomanometer  
and an  
aneroid sphygmomanometer.



# Sizes of blood pressure cuffs



# Stethoscope

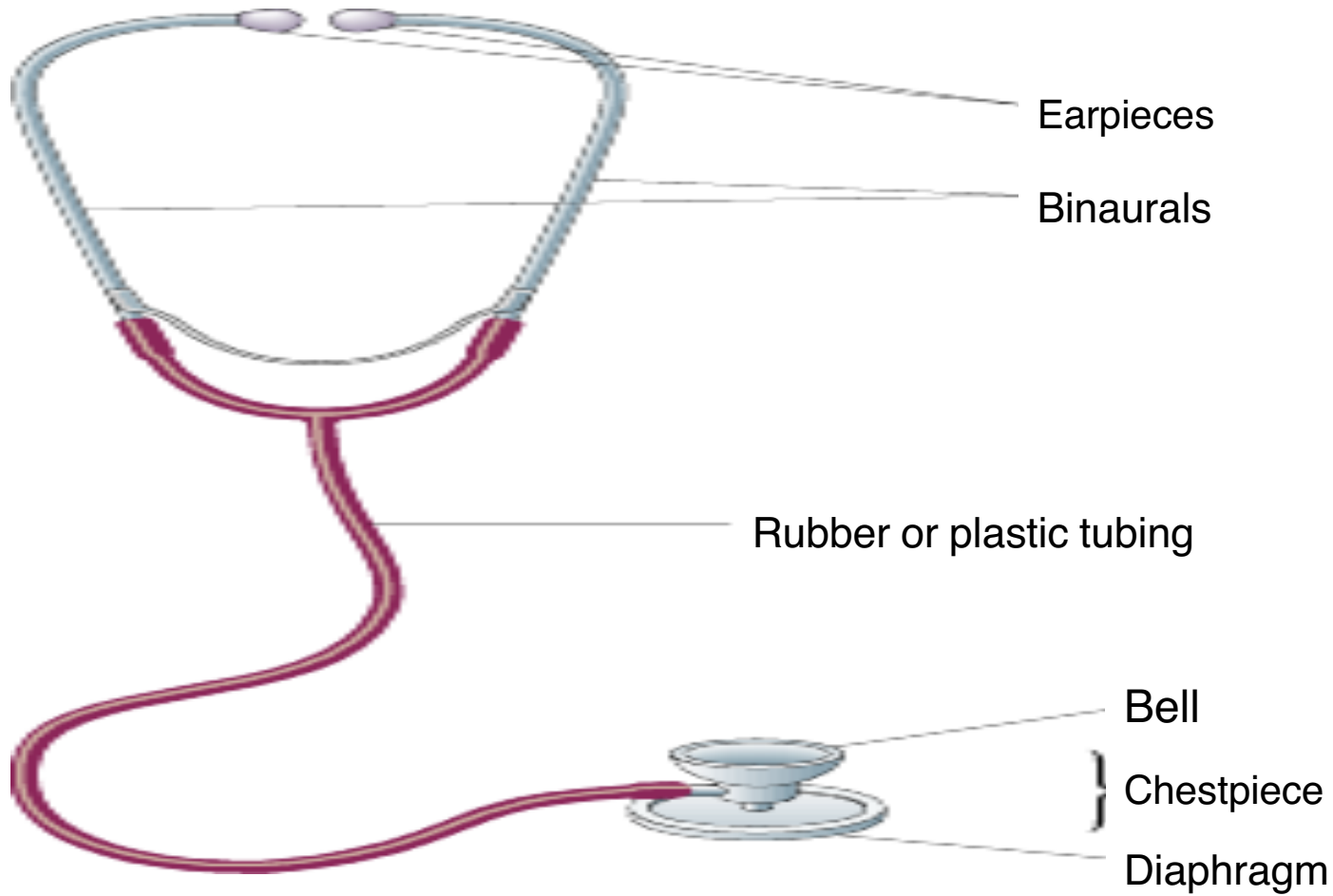
- The stethoscope is an instrument for listening to sounds within the body.
- Body sounds can be heard at the skin's surface and transported via enclosed columns of air to the ear.
- In order to take the blood pressure, the stethoscope diaphragm is applied directly over the brachial pulse pressure point (inner arm).



# Stethoscope

- The diaphragm headpiece should be applied with light pressure (heavy pressure will distort the artery and produce sounds below the true diastolic) so that there is no air between the skin and the stethoscope.
- In using stethoscopes with bent ear tips, the ear tips should point forward toward the nose.

# Stethoscope



# Monitoring Blood pressure

Purposes:

- 1) To aid in the diagnosis of the patient' s condition
- 2) To guide in his treatment.
- 3) To evaluate the patient' s progress.

# Monitoring Blood pressure

## Indications:

- o New patients.
- o Pre and post operative patients.
- o Antenatal and post natal patients.
- o Patients with shock and haemorrhage.
- o Patients with cardiac conditions and hypertension
- o Patients with neurological disorders.

# Monitoring Blood pressure

## General Instructions:

- 1) See that the patient is relaxed and is a comfortable position.
- 2) Record pulse along with blood pressure.
- 3) Blood pressure is taken at the same arm, same time, same posture daily.

# Blood pressure

Classification	SBP(mmHg)	DBP(mmHg)
Normal	<120	<80
Pre-hypertension	120-139	80-89
Grade 1	140-159	90-99
Grade 2	160-179	100-109
Grade 3	$\geq 180$	$\geq 110$

Exhibit 8. Short subject position



Meniscus at level of observer's eye

Mercury column vertical

Right sleeve rolled up

Arm Supported at heart level

Cuff applied snugly with bottom edge one inch above crease in elbow

Rest right arm on table palm up

Assume relaxed, comfortable position

Sit quietly with legs uncrossed

# Electronic sphygmomanometer





# Procedure

1. CHECK THE EQUIPMENT. Do not use if any problems are found.
  - a. Look to see that the gauge - mercury meniscus or aneroid needle is at zero
  - b. Check the cuff for any breaks in stitching or tears in the fabric.
  - c. Check the rubber tubing for cracks or leaks, especially at connections.
  - d. Be sure three sizes of cuffs are accessible (small, regular, and adult large).

# Procedure

2. PLACE THE MANOMETER so it can be viewed straight on and within 15 inches of the viewer.
3. RIGHT ARM will be used when possible. Upper arm should be bare and unconstricted by clothing
4. SELECT THE APPROPRIATE SIZE CUFF. The bladder width should equal at least 40% of the circumference of the upper arm, and the length of the bladder should be 80% of the circumference of the arm, but no more than 100%.
5. PALPATE the location of the brachial artery (on the upper arm's inner aspect).
6. POSITION the center of the cuff's bladder over the brachial artery.
7. APPLY THE CUFF evenly and snugly one-inch (2.5 cm) above the antecubital fossa (bend of arm).

# Procedure

8. POSITION THE ARM so the cuff is at heart level. The arm should rest firmly supported on a table, slightly abducted and bent, with palm up.
9. For the first reading only,
  - a. Palpate the radial artery pulse.
  - b. Inflate the cuff to the point where the pulse can no longer be felt.
  - c. Slowly deflate the cuff, noting on the gauge the point where the pulse reappears/can again be felt. This is the estimated systolic pressure. Rapidly deflate the cuff. Wait at least 15-30 seconds before re-inflating the cuff to begin the first auscultatory measurement. (This allows good circulation to be reestablished.)

# Procedure

10. CHECK THE CLIENT'S POSITION. Legs should be uncrossed, feet resting firmly on the floor and the back supported while blood pressure is being measured.
11. INSERT the stethoscope earpieces, angled forward to fit snugly.
12. PLACE THE BELL OR THE DIAPHRAGM HEAD of the stethoscope lightly over brachial artery at the bend of the elbow, but with good skin contact. Avoid too much pressure, which can close off the vessel and distort the sounds, therefore altering the reading. (The bell head is preferred because it permits more accurate auscultation of the Korotkoff sounds than the diaphragm, especially in the interpretation of diastolic readings.)

# Procedure

14. INFLATE the cuff as rapidly as possible to maximum inflation level (MIL),.
15. DEFLATE THE CUFF SLOWLY and CONSISTENTLY at the rate of 2 mm per pulse beat. The rate of deflation should be slow enough to accurately evaluate the exact millimeter marking of the Korotkoff sounds. Once deflation has begun, never reinflate.
16. NOTE where the first sharp rhythmic sound appears in relation to the number or markings on the gauge. This is the systolic pressure.
17. CONTINUE DEFLATION at the established rate. NOTE on the gauge where the last sound is heard. This is the diastolic pressure in adults.
18. CONTINUE DEFLATION for 10 mm Hg past the last sound. (This assures that the absence of sound is not a "skipped" beat but is the true end of the sound.) Then deflate the cuff rapidly and completely.

# Korotkoff's Sounds

Measurement of blood pressure by auscultation is based on the sounds produced as a result of changes in blood flow, termed Korotkoff's sounds, and are:

1. Phase I The pressure level at which the first faint, clear tapping sounds are heard, which increase as the cuff is deflated (reference point for systolic BP).
2. Phase II During cuff deflation when a murmur or swishing sounds are heard.
3. Phase III The period during which sounds are crisper and increase in intensity.
4. Phase IV When a distinct, abrupt, muffling of sound is heard
5. Phase V The pressure level when the last sound is heard (reference point for diastolic BP).

# Factors affecting blood pressure

- Peripheral resistance
  - blood vessel diameter - Smaller diameter, same volume, more pressure.
  - blood viscosity - The more viscous the blood, the greater resistance it encounters and the higher the blood pressure.
- Vessel elasticity - The elastic recoil of the vessel then maintains the continued flow of blood during diastole.
- Blood volume - When there is a greater volume of fluid, more fluid presses against the walls of the arteries resulting in a greater pressure.
- Cardiac output - An increase in cardiac output results in increased blood pressure.

# Factors that can affect blood pressure reading

- Blood Pressure Cuff is too Small - Studies have shown that using too small of a blood pressure cuff can cause a patient's systolic blood pressure measurement to increase 10 to 40 mmHg.
- Blood Pressure Cuff Used Over Clothing- Studies have shown that clothing can impact a systolic blood pressure from 10 to 50 mmHg.
- Not Resting 3-5 minutes - Any activities such as exercise or eating can affect systolic blood pressure measurement 10 to 20 mmHg.
- Arm/Back/Feet Unsupported - When having your blood pressure measured, you should always be seated in a comfortable chair, legs uncrossed, with your back and arm supported. These differences can increase/decrease systolic blood pressure 2mmHg for every inch above/below your heart level.



# Factors that can affect blood pressure reading

- Emotional State - Stress or anxiety can cause large increases in blood pressure.
- Talking - studies have shown that systolic blood pressure measurement may increase 10 to 15mmHg.
- Smoking- Tobacco products all contain nicotine which will temporarily increase blood pressure.
- Alcohol/Caffeine- Alcohol and caffeine consumption causes blood pressure levels to spike.
- Temperature- Blood pressure tends to increase when you are cold.

# Taking blood pressure

Avoid measurement in an arm

- Injury or blocked artery is present
- History of mastectomy on that side
- Implanted device is under the skin

# Common Causes of Blood Pressure Measurement Errors

- Systematic error is most often due to a lack of concentration or poor hearing. It may result in confusion of auditory and visual cues or misreading of the Korotkoff sounds.
- Terminal digit preference refers to the tendency for an observer to record the pressure reading to a convenient digit, such as zero diagnosis and treatment.
- Observer prejudice or bias implies that an observer adjusts the observed pressure to meet his/her preconceived notion of what the pressure “should be.”
- Equipment Errors
- Patient Preparation Errors

# CORRECTING BLOOD PRESSURE ERRORS

- Patient preparation
- Selecting proper cuff size
- Estimating systolic blood pressure
- Recording average blood pressure (instead of a single measurement)
- Eliminating terminal digit bias
- Maintaining and calibrating equipment

# Taking Vital signs

Equipments required:

1. Oral/ axilla / rectal thermometer (1)
2. Stethoscope (1)
3. Sphygmomanometer with appropriate cuff size (1)
4. Watch with a second hand (1)
5. Spirit swab or cotton (1)
6. Sponge towel (1)
7. Receiver (2): for clean (1) for discard (1)
8. Record form
9. Ball- point pen: blue / black (1) red (1)
10. Steel tray (1): to set all materials

# Taking Vital signs

Before beginning any procedure:

- Have equipment clean and ready
- Wash hands
- Identify the person
- Introduce yourself if necessary
- Go to a private or quiet area
- Explain the procedure
- Document your results

# CRITICAL THINKING

- IDENTIFY - Identifies abnormal vital signs as profoundly or moderately abnormal; accurately describes client condition, Identifies possible cause of abnormal vital
- GATHER - Assesses client appropriately to include peripheral pulses, HR, skin condition for pallor and moisture, altered LOC, temp and /or O2 sat; Identifies possible cause of abnormal vital signs;
- EXAMINE - Prioritizes pertinent assessment data for specific client; Reflects on possible causes of abnormal vital signs; validates by using manual equipment for abnormal BP

# CRITICAL THINKING

- FORMULATE - Develops a plan for correcting abnormal vital signs; Analyzes pros and cons of plan for potential outcomes
- APPLY - Notifies the team members for client abnormal vital signs with each occurrence; implements plan to improve abnormal vital signs with accuracy and without hesitation; documents actions, client responses and outcomes
- EVALUATE - Reflects on other avenues of planning after completion and discussions with peers in post conference; request feedback from staff and faculty to improve the process; accurately assesses and reassesses client as needed; Utilizes this learning experience in other client settings.



**PATIENT**

**FEEDING**

# Patient feeding

- Nutrition is the process by which the body metabolizes and utilizes nutrients.
- Digestion refers to the mechanical and chemical processes that convert nutrients into a physically absorbable state.
- Absorption is the process by which the end products of digestion—monosaccharides (simple sugars), amino acids, glycerol, fatty acid chains, vitamins, minerals, and water—pass through the epithelial membranes in the small and large intestines into the blood or lymph systems.

# Patient feeding

- Understanding the role of basic nutrients provides the foundation for selecting foods that promote health.
- Selecting the healthiest forms of each of these nutrients and eating them in proper balance enables the body to function at its optimal level of health.

# Types of diet

## Nothing by Mouth/ Nil per Oral (NPO)

- Placing the client on NPO (nothing by mouth) status is a type of diet modification as well as a fluid restriction;
- This intervention is prescribed prior to surgery and certain diagnostic procedures, to rest the GI tract (and prevent diarrhea or vomiting), or when the client's nutritional problem has not been identified.

# Types of diet

## Clear-Liquid Diet

- Dairy products are not allowed on a clear-liquid diet. The client is allowed to ingest only liquids that keep the GI tract empty (no residue), such as water, apple juice, and gelatin. A clear-liquid diet is prescribed primarily for surgical clients.

## Liquid Diet

- A liquid (or full liquid diet) consisting of various types of liquids is prescribed mainly for postoperative clients because of calorie and nutrient considerations. If the client tolerates a liquid diet without nausea or vomiting and has normal bowel sounds, the diet is progressed to as tolerated (client eats whatever foods that cause no problems).

# Types of diet

## Soft Diet

- A soft diet promotes the mechanical digestion of foods. It is prescribed for clients experiencing difficulty in chewing and swallowing. A soft diet is also therapeutic for clients with impaired digestion and/or absorption, due to conditions such as ulcerative colitis and Crohn's disease. Foods to be avoided on this diet include nuts, seeds (tomatoes and berries with seeds), raw fruits and vegetables, fried foods, and whole grains.

## Pureed Diet

- A pureed diet provides food that has been blenderized to a smooth consistency. It is prescribed for clients with dysphagia. Special consideration needs to be given to meal preparation; when food has the same consistency, it is difficult to distinguish the taste of different foods.

# Types of diet

## Mechanical Soft Diet

- A mechanical soft diet is similar to a soft diet; however, it allows clients variation, permitting foods with different tastes, such as chili beans. It is prescribed for clients experiencing difficulty chewing or who are unable to chew food thoroughly, as may occur with poorly fitted dentures.

# Types of diet

## Low-Residue Diet

- A low-residue diet has reduced fiber and cellulose. It is prescribed to decrease GI mucosal irritation in clients with diverticulitis, ulcerative colitis, and Crohn's disease. Foods to be avoided are raw fruits (except bananas), vegetables, seeds, plant fiber, and whole grains. Dairy products are limited to two servings a day.

## High-Fiber Diet

- High-fiber-diet foods are the opposite of low-residue foods. A high-fiber diet is an integral part of the treatment regimen for diverticulosis because it increases the forward motion of the indigestible wastes through the colon

## Liberal Bland Diet

- A liberal bland diet eliminates chemical and mechanical food irritants, such as fried foods, alcohol, and caffeine



# Types of diet

## Fat-Controlled Diet

- Fat-controlled diets reduce the total fat ingested by replacing saturated fats with monounsaturated and polyunsaturated fats and restricting cholesterol. They are prescribed for clients with atherosclerosis, heart disease, and obesity. Saturated foods to be avoided include animal fats, gravies, sauces, chocolate, and whole-milk products.

## Sodium-Restricted Diet

- Sodium intake may be restricted as follows: mild, 2 to 3 g; moderate, 1000 mg; strict, 500 mg; severe, 250 mg. A sodium-restricted diet is prescribed for clients with excess fluid volume, hypertension, heart failure, myocardial infarction, and renal failure.

# Types of diet

## Lactose Intolerance Diet

- A lactose intolerance diet eliminates milk and all dairy products except yogurt. Lactose is a sugar found in milk and aids the body absorption of calcium. Lactose intolerance is caused by a lack or deficiency of lactase, an enzyme normally made in the small intestines that splits lactose into glucose and galactose. Incomplete digestion of lactose results in diarrhea, gas, and abdominal cramps between 30 minutes and 2 hours after consumption of dairy foods.

# Nursing measures that promote patient feeding

- Before bringing the meal tray into the room, ask whether the client needs to void or have a bowel movement.
- Provide hygiene measures before serving the meal tray.
- Position the client in a comfortable position, preferably in a chair, if not contraindicated.
- Ask about the client's eating habits, and as to the foods he or she prefers to eat first.
- Make sure the foods are being served at the correct temperature.

# Nursing measures that promote patient feeding

- Provide assistance if the client is unable to handle eating utensils or open containers and packages.
- Provide adequate time for the client who has difficulty in chewing or swallowing. Make sure that someone is in the room while the client is eating.
- Document the type and amount of food taken at each meal.
- Remove the tray after the meal and provide hygiene measures.

# Tube feeding

## Types of feeding tubes

- Nasogastric
- Nasoduodenal
- Percutaneous Endoscopic Gastrostomy (PEG)
- Open gastrostomy
- Transgastric jejunostomy
- Surgical jejunostomy

# Intubation

- Placement of a tube into the stomach or intestine through the mouth, nasopharynx, (Nasogastric/Levine), or through an artificial opening made in the abdominal wall of the stomach (gastrostomy) or small intestine (jejunostomy)
- Nasogastric= short term
- Gastrostomy= long term, surgically inserted directly into the stomach(gastrostomy) or small intestine (jejunostomy)

# Tube Feedings

- Additional water post:
  - Feedings
  - Medications
  - Prescribed times
- Medications
  - Liquid/ dissolved
  - No enteric coated or time released capsules
  - Do not mix meds with formula. Give medication prior to formula

# Tube feeding schedule

- Continuous
  - Over 24 hrs
- Cyclic
  - Prescribed period
- Bolus
  - Prescribed volume over 30-60 min. 4-6 times/day.
  - Physician orders frequency, amount, & type of feeding



# Problems with tube feeding

- Dry mouth
- Sore mouth
- Thirst
- Feeling deprived

# Do's and don'ts of tube feeding

- Do not hurry/force feeding
  - Abdominal distention & discomfort
- Clean not sterile technique
- Formula at room temp.
  - Warm = bacterial growth
  - Cold= gastric cramping & discomfort, liquid is not warmed by the mouth and esophagus
- Formula can hang for 8hrs.

# Procedure for checking tube placement

- X-ray is the best and most accurate
- Air insertion and listen with stethoscope
- Aspirate gastric contents
  - Determines tube placement and checks for digestion of previous feeding ( should be less than 50mls ) Note -any gastric contents should be returned to the stomach so the chemical balance is not disturbed.
  - Check pH of aspirate with pH paper

# Aspirate pH

- Stomach is acidic 1-4
- Intestine is 7 or greater
- Pleural secretions 6
- Wait at least 1 hr after feedings to check

Feeding is not given if no bowel sounds are heard, abdomen is distended, too much residual, or tube dislodged

# Position for tube feeding

- Fowlers before and after
  - Prevents aspiration
- Regulate the flow of the feeding
- Gravity/ feeding pump
- Flush tube well post feeding
- Clamp tube post flushing
- Intake/output

Avoid introducing air into tubing

# Nasogastric intubation

- Nasogastric intubation refers to the process of placing a soft plastic nasogastric (NG) tube through a patient's nostril, past the pharynx and down the esophagus into a patient's stomach.

# Nasogastric tube feeding

- - Most common first line route.
- - Easy to place at bedside by nursing staff.
- - Use small flexible tubes to avoid nasal skin erosion.
- - Check position via auscultation/aspiration of gastric contents
  - and gastric PH, as per nursing protocol. If in doubt regarding position by auscultation and aspiration then confirm with abdominal X-ray.
- - Check residuals to evaluate tolerance.

# Nasogastric tube feeding

## Requirements

- Personal protective equipment
- NG/OG tube
- Catheter tip irrigation 60ml syringe
- Water-soluble lubricant, preferably 2% Xylocaine jelly
- Adhesive tape
- Low powered suction device OR Drainage bag
- Stethoscope
- Cup of water (if necessary)
- Emesis basin
- pH indicator strips



# Nasogastric tube feeding

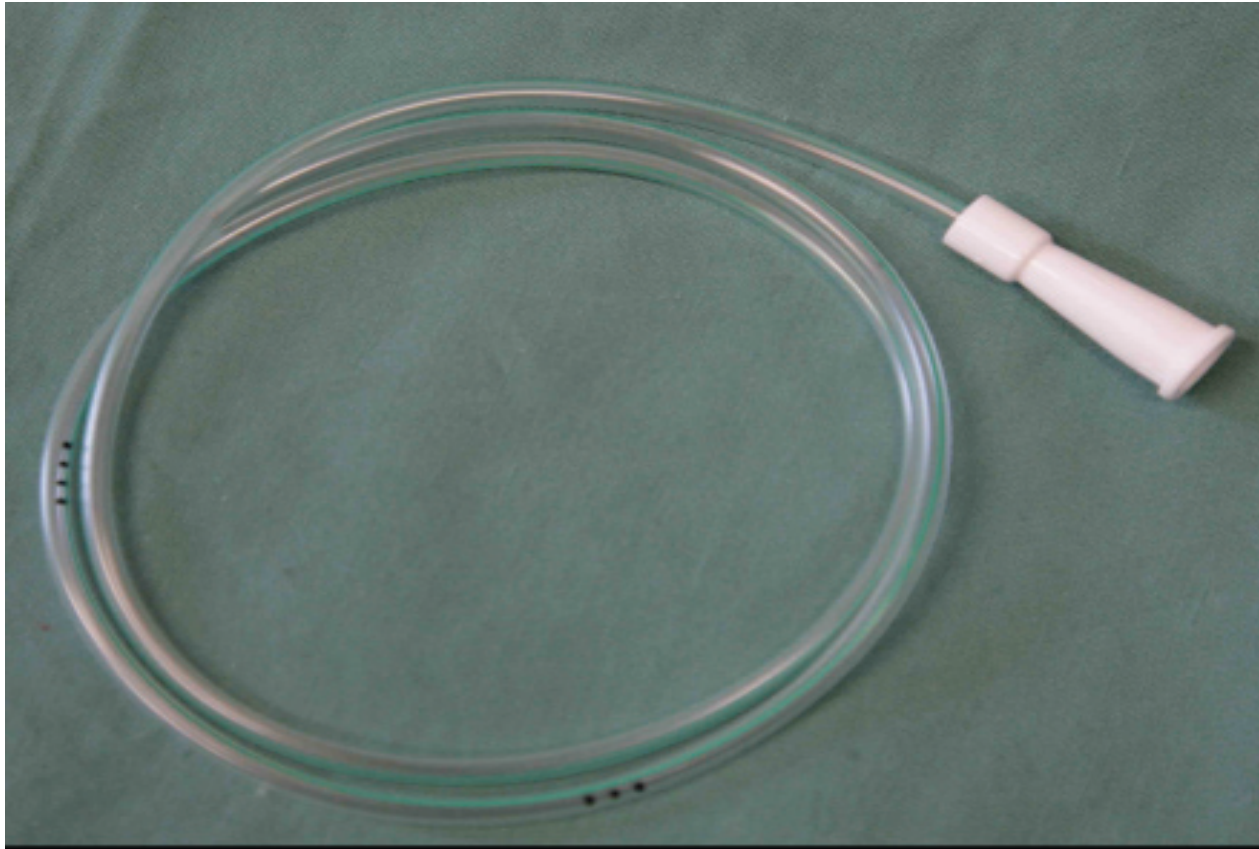
## Procedure

- To insert a nasogastric tube, have the patient tilt his head slightly back and gently ease the lubricated tubing into the nares.
- Have the patient tilt his head forward into a neutral upright position, hold his breath and swallow.
- Gravity and swallowing will help move the tube down the esophagus as you gently continue to advance the tube.
- The patient can assist by swallowing and can even take sips of water to help move the tubing down into the stomach.

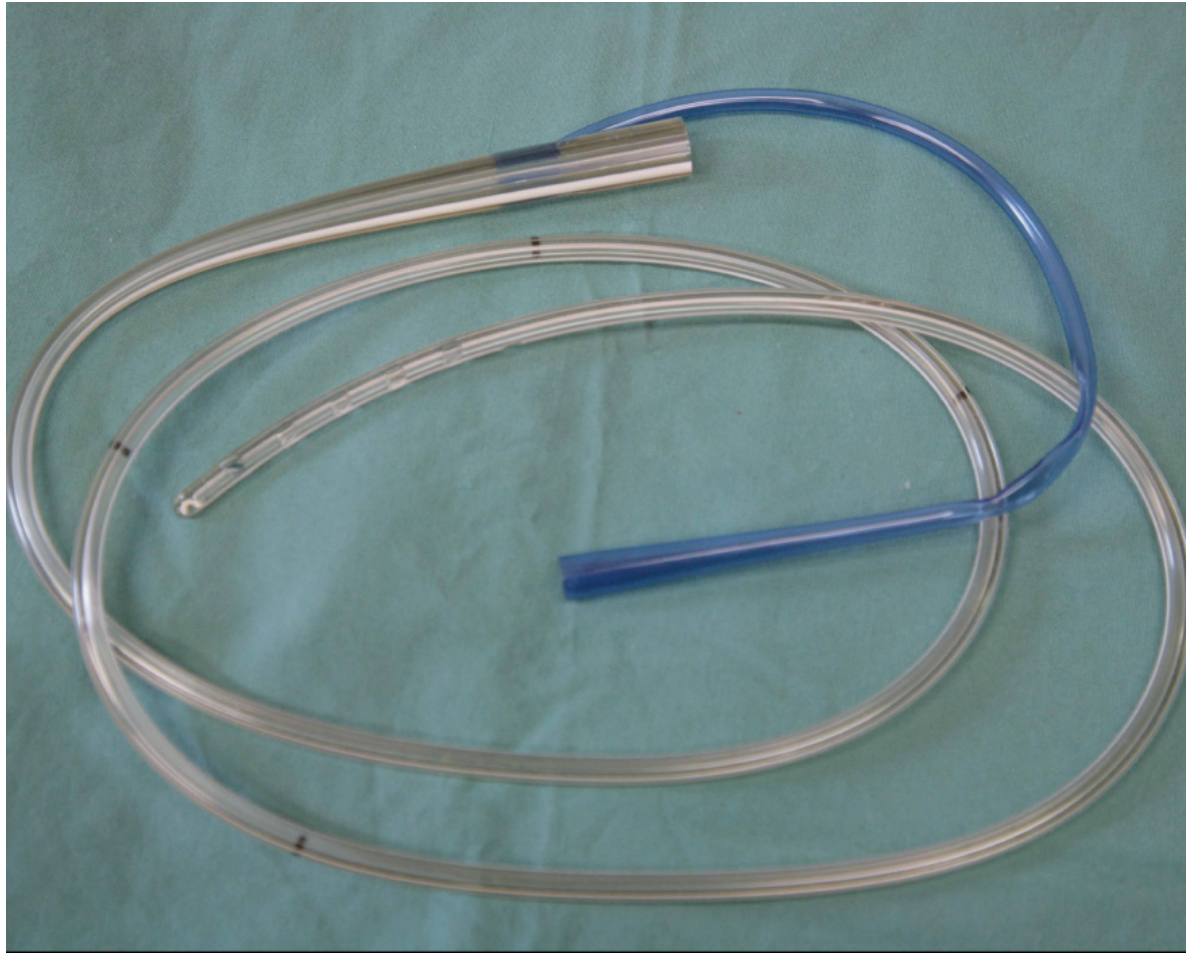
# Nasogastric tube feeding

- Advance the tubing until you reach the marker tape that you applied when measuring the distance to the patient's stomach.
- Secure the tubing with tape and check the tubing for placement.
- If the patient gags during the procedure, stop advancing the tube and allow the patient to rest.
- If the tubing comes out of the mouth, retract the tubing and try again.
- If the patient is unconscious, advance the tube between respirations to avoid placing the tube into the trachea.
- If the patient becomes cyanotic, coughs or displays any signs of respiratory distress, remove the tubing, allow the patient to rest and begin again.

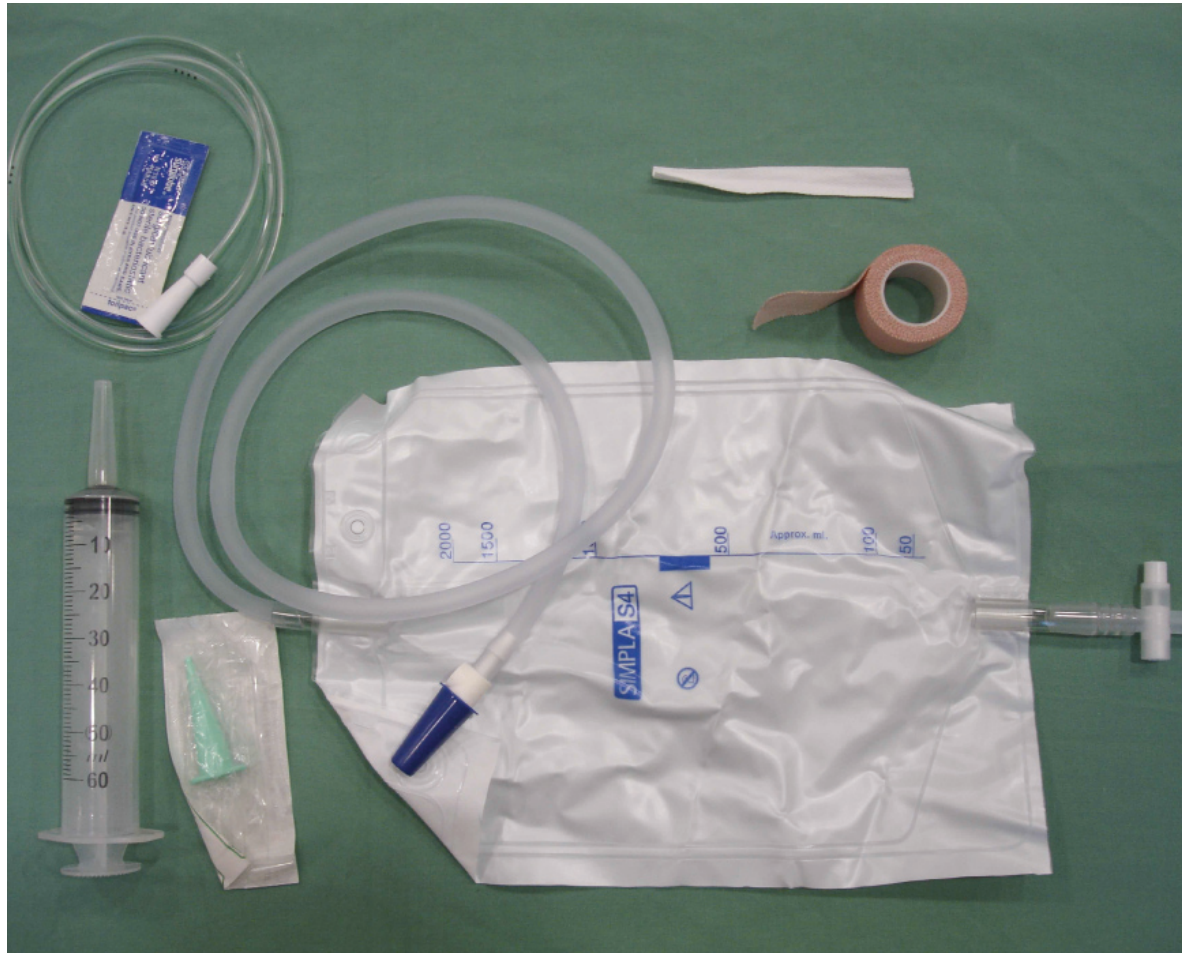
# NG tubes



# NG tubes



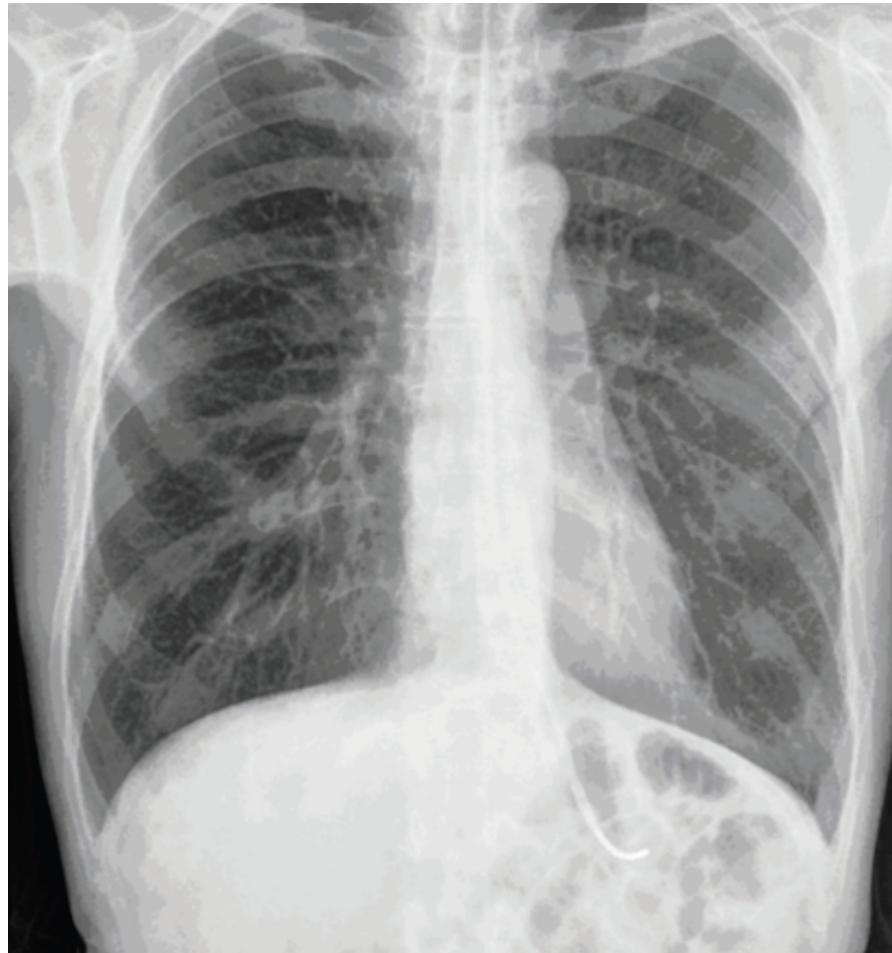
# Requirements for NG insertion



# Inserting NG tube



# Nasogastric tube located in the stomach on chest X-ray



# Precautions

- Do not use force when inserting a NG tube. If resistance occurs, rotate and retract the tube slightly and try again. Forcing the tube can cause traumatic injury to the tissue of the nose, throat or esophagus.
- Always check the tube positioning before giving feedings. If the tube is out of place the patient may aspirate the feeding solution into the lungs.
- Keep the patient in an upright or semi-upright sitting position when delivering a tube feeding to enhance peristalsis and avoid regurgitation of the feeding.
- Cap or clamp off the NG tube when not in use to prevent backflow of stomach contents or accumulation of air in the stomach.



# Naso-gastric feeding

DOCUMENTATION: Record the following information on the Patient Care Record:

- name of the formula used.
- amount of formula infused.
- amount of flush.
- time of the feeding.
- patient response.
- implementation of aspiration precautions

# Naso-gastric feeding

The complications of nasogastric tube feedings :

- obstruction of the tube
- perforation of the tube
- tube migration out of correct position
- regurgitation and aspiration of the feeding
- diarrhea
- nausea and vomiting
- abdominal distention, cramping and discomfort from too much feeding or a rate of feeding that is too rapid

# Naso-gastric feeding

Removing nasogastric tube

Purpose: to allow for resumption of normal GI functions

Indications: when recovery from the reason for insertion is achieved.

# Naso-gastric feeding

- Check PO for discontinuation of nasogastric tube.
- Explain procedure to patient, perform hand hygiene and don gloves.
- Turn off suction device and remove tape from pt's nose or cheek.
- Stand on patient's right side if right handed, place disposable pad across patient's chest.
- Inject air before pulling out tube to prevent residual contents draining into oropharynx.
- Ask patient to hold breath to help preventing aspiration.
- Dominant hand to draw the tube out into the towel held by non-dominant hand, to minimize dripping and unpleasant sight.
- Record the drainage collected by suction machine or drainage bag as fluid output.
- Dispose and perform hand hygiene.

# Nasojejunal

- - Used for patients who do not tolerate gastric feeds or patients with known abnormality of gastric emptying.
- - Can attempt to place at bedside and check X-ray for migration past the pylorus.
- - If unsuccessful then position tube under fluoroscopic or endoscopic guidance.
- - Residuals not helpful if tube remains post-pyloric, watch for signs of abdominal pain or distension to determine tolerance. Avoid starting feeds until patient is hemodynamically stable and initial volume resuscitation is complete.

Caution: Patients with nasal obstruction or severe facial fractures should have these tubes placed orally.

# Open Gastrostomy

- - These are usually performed either in conjunction with a laparotomy for other reasons or for patients who cannot have percutaneous placement due to intra-abdominal adhesions
- - This procedure requires a general anesthetic
- - The stomach is tacked to the abdominal wall with sutures and an external suture is usually placed around the tube to prevent it from being dislodged.
- - The tube should be left to gravity drainage for 24 hours and then can start enteral feeds.
- - Can check residuals for tolerance
- - Surgical incision should remain dressed for 24 hours and then left open to air if there is no drainage.

# Transgastric Jejunostomy

- - These tubes can be placed surgically, or with endoscopic or radiographic guidance.
- - May contain a second port for gastric aspiration.
- - Can be converted to gastrostomy later.
- - Cannot monitor residuals to determine tolerance.
- - Post placement care is same as PEG.

# Surgical Jejunostomy

- - Usually placed in conjunction with a laparotomy or for patient who need long term enteral access and cannot tolerate gastric feeds.
- - These can be placed either via a laparoscopic or open approach and require a general anesthetic.
- - The jejunum is tacked to the abdominal wall with sutures and an external suture is usually placed around the tube to prevent it from being dislodged.
- - Enteral feeds can begin 12 hours after surgery.



# Surgical Jejunostomy

- NOTE: Needle catheter jejunostomy tubes are much smaller diameter than standard tubes and are thus much more likely to obstruct. They must be flushed frequently and high fiber formula and medications should not be administered through these tubes.
- NOTE: All tubes not being used for continuous enteral feeds should be flushed with 30cc (adults) or 5-10 cc (pediatric) water every 4 hrs to ensure patency.
- NOTE: All tubes should be marked at the skin entrance to allow monitoring for migration of the tube. Tube position should be monitored by the nursing staff every Shift.

# Enteral feeding

- Candidates for enteral tube feeding are clients who have a functional GI tract and will not, should not, or cannot eat.
- Therefore, tube feedings are used for clients who are (or may become) malnourished and in whom oral feedings are insufficient to maintain adequate nutritional status.

# Enteral feeding

- Enterostomy is the surgical creation of an artificial fistula (gastrostomy, jejunostomy) in the intestines by incision through the abdominal wall.
- Tube enterostomies can be placed at various points along the GI tract and are performed when long-term tube feeding is anticipated or when obstruction makes nasal intubation impossible.
- Nutrients administered through tubes are liquefied so they can be easily digested and absorbed.

# Gastrotomy tube



# Enteral feeding

Indications for use if a patient needs nutritional support and the GI tract is accessible and functioning:

- i) Severe malnutrition – weight loss  $>10\%$ , albumin  $<30\text{g/L}$ , muscle wasting and peripheral oedema; and/or
- ii) Moderately malnourished but would be expected to develop significant malnutrition in the short term as a result of an underlying condition eg head and neck cancers or advanced MND; and/or
- iii) Normally nourished but unable to commence normal feeding for a considerable length of time ( $>3-4$  days) e.g. post stroke; and/or
- iv) Unable to meet nutritional requirements via oral diet alone

# Indications for Enteral Feeding

- Clients unable to eat
  - ie: comatose with functional GI system
  - Ventilated patients
  - Post-op oral, head or neck surgery
- Clients who will not eat
  - Older adults
  - Confused clients
- Unable to maintain adequate oral nutrition
  - Cancer, sepsis, infection, trauma, head injury

# Enteral feeding

Contraindications for enteral feeding:

- i) Major intra-abdominal sepsis
- ii) Total obstruction of GI tract or abdominal distension of unknown pathology

# Enteral feeding

## Problems and Complications ? Possible Causes

- Diarrhea
  - Too rapid administration of the feed therefore may need to decrease the volume given and the rate
  - Causes not related to enteral nutrition such as antibiotic treatment
- Nausea, vomiting, large aspirates
  - A condition causing delayed gastric emptying
  - Overfeeding – need to withhold feed for three hours and recommence at a lower rate
- Abdominal Discomfort
  - Solution too cold
  - Gastric distension
  - Too rapid administration



# Percutaneous endoscopic gastrostomy (PEG)

- PEG feeding tubes are increasingly used for long term enteral nutrition. It is used where patients cannot maintain adequate nutrition with oral intake.
- Indications include difficulties with oral intake often where obstruction to the upper airway or gastrointestinal tract makes passing a nasogastric tube difficult.

# Percutaneous endoscopic gastrostomy (PEG)

## Indications

- Head and neck cancers. It is useful particularly when surgery is extensive and when combined with chemotherapy, radiotherapy or both.
- Malignant bowel obstruction including oesophageal cancer
- Neurological conditions are the most common indications for PEG and include:
  - Stroke
  - Disorders of swallowing
  - Neurosurgical disease
  - Parkinson's disease
  - Brain tumours
  - HIV encephalopathy
  - Neonatal encephalopathy
  - Head injury patients
- AIDS and HIV encephalopathy (improves nutritional status but not survival)
- Crohn's disease
- Burns patients

# Percutaneous endoscopic gastrostomy (PEG)

## Contraindications for PEG

- Acutely ill patients
- Patients with short life expectancy
- Patients with severe coughing

# Percutaneous endoscopic gastrostomy (PEG)

## Benefits of PEG:

- Well tolerated (better than nasogastric tubes)
- Improved nutritional status
- Ease of usage over other methods (nasogastric or oral feeding) reported by carers
- Satisfactory use by home carers
- Low incidence of complications
- Reduction in aspiration pneumonia associated with swallowing disorders
- Cost effective relative to alternative methods particularly when reasonably long survival expected<sup>[37]</sup>

# Percutaneous endoscopic gastrostomy (PEG)

## Care of PEG tube

- Examine skin around site for infection/ irritation.
- Note measuring guide number at end of external fixation device.
- Clean stoma site with sterile saline.
- Dry area with gauze.
- Rotate gastrostomy tube to prevent adherence to sides of track.
- Re-attach external fixation device to abdomen.
- Attach gastrostomy tube gently to fixation device and position as before according to mark/number on tube.
- Avoid use of bulky dressings.

# DOCUMENTATION IN NURSING

# DEFINITION

- Documentation is any written or electronically generated information about a client that describes the care or service provided to that client.
- Documentation is the written and legal recording of the interventions that concern the patient and it includes a sequence of processes.

# DEFINITION

- Documentation is established with the personal record of the patient, which constitutes a base of information on the situation of his health.
- Health records may be paper documents or electronic documents, such as electronic medical records, faxes, e-mails, audio or video tapes and images.



# DOCUMENTATION

- Documentation is critical to determine if the standard of care was rendered to a patient to defend nursing actions.
- Failure to chart, omissions and poor communication are hard to defend.
- Effective written communication skills are essential in order to precisely document each of the components of nursing practice.
- When done well, nursing documentation is a valuable tool to support effective communication between providers and continuity of care within and across settings.

# DOCUMENTATION

The health-care record is a clinical document. It should include:

- information to identify the client,
- the care provider,
- the date of the encounter,
- the problem(s) being addressed,
- care provided,
- the clinical reasoning for the choice of care,
- the client's response and/or outcome of the interventions and future plans.

# DOCUMENTATION

- Documentation is a part of that responsibility.
  - Through documentation, nurses communicate their observations, decisions, actions and outcomes of these actions for clients.
- Documentation is an accurate account of what occurred and when it occurred.

# PURPOSE OF DOCUMENTATION

- To communicate information on patient's management, response to treatment and identified needs to ensure continuity of care.

# IMPORTANCE OF DOCUMENTATION

The health care record is a mechanism which allows the health care team to:

- Communicate effectively;
- deliver appropriate individualized care
- evaluate the progress and health outcomes of patients/clients;
- retain the integrity of health information over time.

# IMPORTANCE OF DOCUMENTATION

## Legal Implications of Documentation

- The client health-care record is an important legal document. It can be used to resolve questions or concerns about accountability and the provision of care.

## Facilitating Evidence-Based Practice

- Evidence-based practice is supported and informed by research findings, as well as by the depth and breadth of knowledge and experience of registered nurses.
- The health-care record can be an important source of data for nursing and health research thus, accurate and thorough documentation is essential.

# IMPORTANCE OF DOCUMENTATION

## Funding and Resource Management

- Documentation is one source of data that can be used by administration in making funding and resource management decisions.
- Health records are considered to be proof of care provided, and third-party insurers sometimes use documented client outcomes for the approval of insurance claims.
- Workload measurements and/or client classification systems, derived as a consequence of client documentation, are used by some agencies to help determine the allocation of staff and/or funding.

# IMPORTANCE OF NURSING DOCUMENTATION

- ❑ Reflects the client's perspective, identifies the caregiver and promotes continuity of care by allowing other partners in care to access the information
- ❑ Communicates to all health care providers the plan of care, the assessment, the interventions necessary based on the client's history and the effectiveness of those interventions
- ❑ Is an integral component of inter-professional documentation within the client record



# IMPORTANCE OF NURSING DOCUMENTATION

- ❑ Demonstrates the nurse's commitment to providing safe, effective and ethical care by showing accountability for professional practice and the care the client receives, and transferring knowledge about the client's health history
- ❑ Demonstrates that the nurse has applied within the therapeutic nurse-client relationship the nursing knowledge, skill and judgment required by professional standards regulations.

# The Ethical Implications of Documentation in Nursing

Nursing is governed by ethical guidelines and laws. In order to track compliance with the laws and guidelines, documentation is used.

- Proof of Care
  - Documentation shows the extent of care provided to a patient and the due diligence of the staff. How a patient was admitted, tested and treated. Every medication administered, test ordered and conversation with staff is recorded. This acts as proof of the care a patient received. Important also is justification for a procedure which is noted in the chart.

# The Ethical Implication of Documentation in Nursing

- Professional Accountability
  - Things can go wrong in health care, and, as such, health-care workers are susceptible to lawsuits. In order to protect yourself, documentation is important. Documentation is proof that you have provided a good quality of care, followed protocol and have done your best to help the patient.
- Licensing
  - In order to operate within a health-care setting, both individuals and the institutions must be licensed. Review boards periodically look through records to determine that the staff is doing the job well. Accrediting bodies for hospitals review documentation to determine if the hospital is eligible for government funding. This determination is based on ethical treatment, quality of care and outcome of care.

# The Ethical Implications of Documentation in Nursing

- Quality of Care
  - The quality of care is an ethical concern in nursing. Nurses are charged with providing a level of care that is governed by the licensing board as well as the institution where they work. To prove that this quality of care is being provided, nurses document patient interactions, such as concerns raised by patients which are then relayed to doctors.

# The Ethical Implications of Documentation in Nursing

- Treatment
  - Documentation is important in treating clients. Proper documentation gives the health-care provider all the information needed to make a safe and appropriate treatment decision; Incomplete or inaccurate records can lead to treatment errors.

# REQUIREMENTS FOR QUALITY DOCUMENTATION

The following principles are intended to provide nurses with clear direction for producing and maintaining high quality, defensible documentation:

1. Document fact

Fact is what the nurse or midwife saw, heard or did in relation to the patient's care and condition.

# DOCUMENTATION

## 2. Document all relevant information

This will be dictated by consideration of the individual circumstances of each patient. Nurses' documentation should be made with respect to the total condition of the patient, not just a clinical specialty.

## 3. Document contemporaneously

- Nurses and midwives should record entries in the patient's notes as soon as possible after the events to which reference is being made have occurred, with the date and time for each entry recorded. All entries should also include the author's signature, printed name and designation.

# DOCUMENTATION

## 4. Maintain the integrity of documentation

This principle refers to the requirement to preserve all that is recorded in a patient's record, even if an error is made. Nurses and midwives should not attempt to change or delete errors made in the patient's notes. An attempt to change or delete an entry could be interpreted as an attempt to cover up events or mislead others.



# GUIDELINES FOR DOCUMENTATION

## 1. Objective/Factual Documentation

- Registered nurses must document accurately, completely, and objectively including any errors that occurred. An objective description is the result of direct observation and measurement.

## 2. Timeliness

- Documentation is enhanced when client information is entered frequently into the client health-care record (Keatings & Smith, 2000).
- Contemporaneous documentation (completion of the health-care record notes as close to the time of care as possible) enhances the credibility and accuracy of health-care records.
- Documentation of an intervention should never be completed before it takes place.

# GUIDELINES FOR DOCUMENTATION

## 3. Use of Space

- Documentation must not have empty lines or spaces, and the time when assessments and interventions were completed must be noted. On forms or flow sheets every required space should be filled.
- 4. Use of Abbreviations
- Many organizations are currently developing policies that are aimed at reducing the number of common but preventable sources of errors. These policies are related to approved or prohibited abbreviations, or are policies requiring that no abbreviations be used in a practice setting.

# GUIDELINES FOR DOCUMENTATION

## 5. Follow-up

- Document any follow-up of assessments, observations or interventions that have been done, including whether a physician or other care provider has been notified regarding the client. Failed attempts to reach a care provider, the follow-up action taken, and the client's response to interventions should be documented on the client's health-care record.

## 6. Correcting Errors

- To correct an error in a paper-based health-care records system, one method that can be used to appropriately make corrections is the SLIDE rule (Baker, 2000). The SLIDE rule is completed as follows: cross through the word(s) with a single line, and insert your initials, along with the date and time the correction is made; then enter the correct information/explanation

# GUIDELINES FOR DOCUMENTATION

## 7. Recording Medication Administration

- Document the administration of medications immediately after its administration. This prevents errors such as another RN administering medication when the first dose was not recorded.

## 8. Recording Assistance with Care

- In most circumstances, when a RN assists another RN in providing care, the RN providing care documents the actions and the client's responses and notes that another care provider assisted.
- It is not required to name the person who assisted. In certain circumstances, as in a critical incident such as a fall, it is important to record the names of those individuals assisting.

# GUIDELINES FOR DOCUMENTATION

## 9. Designated Recorder in Emergency Situations

- In some emergency situations (e.g., during a cardiac arrest), documentation may be done by a designated recorder. When acting as a designated recorder, the recorder identifies the persons involved and the care they provided.

## 10. Clarification of Orders

- If an order is poorly written, never guess or rely on group consensus to interpret that order. Always call the writer for clarification. There is a high risk for error and potential for an unsafe event to occur.
- A written record of every telephone call should be maintained, whether it is with another care provider for clarification of orders, or with a client following discharge from your facility or unit.

# GUIDELINES FOR DOCUMENTATION

## 11. Recording a Telephone Conversation with a Client

- When advice is given by telephone, the RN is relying on the client's own assessment of the situation.
- The health-care record should include the date (including year) and time of the call, the nature of the call, the response by the RN, and the follow-up recommendations (Baker, 2000).

# Documenting Telephone Orders

- Write down the time and date on the physician's order sheet.
- Write down the order given by the physician.
- Read the order back to the physician to ensure it is accurately recorded.
- Record the physician's name on the physician's order sheet, state "telephone order," print your name, sign the entry and identify your status (e.g., RN).
-

# GUIDELINES FOR DOCUMENTATION

## 12. Interactions with other Health-care Professionals

- It is the RN's responsibility when developing care plans, documenting on flow sheets, completing narrative or computerized documentation, or participating in team or family conferences, to document in the health-care record the outcomes or agreed upon plans of action and the names of the people involved.
- All health-care professionals are responsible for documenting the care they provide or the actions taken.
- The system used should record all interactions with members of the health-care team, including clarification of orders, failed attempts to reach other team members, and the follow up action taken.



# GUIDELINES FOR DOCUMENTATION

## 13. Client Education

- Registered nurses perform, on a daily basis, a broad scope and depth of client education. Inadequate or incomplete documentation of client education impedes communication among health-care providers about what has been taught and diminishes the aspect of this component of care provided by the registered nurse.
- When documenting and evaluating client education, it is important to define the extent of the client's understanding (London, as cited in Bastable, 2003).

# GUIDELINES FOR DOCUMENTATION

## 14. Documenting an Incident in the Health-care Record

- When an incident occurs, pertinent data should be documented on the health-care records of the client(s) involved in the incident.
- An incident report provides a description of an unexpected or unusual event, for example, a client fall, medication error or harm to clients, staff or visitors. Careful documentation of incidents is important for continuous quality improvement, learning from mistakes and managing risk, and in case of a complaint or legal action.

# GUIDELINES FOR DOCUMENTATION

Guidance on how to complete documentation regarding an incident:

- Be concise, accurate and objective.
- Record what was seen, and describe the care provided, who else was involved and the client's (person's) condition.
- Do not try to guess or explain what happened (e.g., the RN should record that side rails were not in place, but should not write that this was the reason the client fell out of bed).
- Record the actions taken by other health-care providers at the time.
- Do not blame individuals in the documentation.
- Always record the full facts.

Discuss with the manager and other team members what would be classified as a critical incident and what should be documented in the health-care record and on an incident report. The RN must take time to plan what they will enter into the health-care record prior to the actual entry. This can help prevent the recording of opinion and the drawing of conclusions that should be avoided in

# GUIDELINES FOR DOCUMENTATION

Documentation needs to be CC FLAT

- Concise
- Complete
- Factual
- Legible
- Accurate
- Timely (current)

# METHODS OF DOCUMENTATION

## Narrative

- Narrative documentation is the traditional method for recording nursing care provided. It is a story-like format to document information specific to client conditions and nursing care. Data are recorded in the progress notes without an organizing framework. It often requires the reader to sort through information to locate the data required.

## Problem-Orientated Medical Record (POMR)

- The foundation of this method is a single list of client problems generated by members of the health-care team. The nursing process forms the basis for the POMR method of documenting client problems.

# METHODS OF DOCUMENTATION

Potter et al. (2006) listed the advantages of POMR method of documenting as follows:

- gives emphasis to client's perceptions of their problems
- requires continuous evaluation and revision of the care plan
- provides greater continuity of care among health-care team members
- enhances effective communication among health-care team members
- increases efficiency in gathering data
- provides easy-to-read information in chronological order
- reinforces use of the nursing process

# METHODS OF DOCUMENTATION

## SOAP/IER

One of the most prominent features of this problem-orientated method of documentation is the structured way in which narrative progress notes are written by all health-care team members, using the SOAP, SOAPIE or SOAPIER format.

Subjective: the client's observations

Objective: the care provider's observations and tests

Assessment: the care provider's understanding of the problem

Plans: goals, action, advice

Intervention: when an intervention was identified and changed to meet client's needs

Evaluation: how outcomes of care are evaluated

Revision: when changes to the original problem come from revised interventions, outcomes of care or time lines this is used to denote changes (Meiner, S., 1999).

# METHODS OF DOCUMENTATION

## PIE

- The PIE notes are numbered or labeled according to the client's problems. Resolved problems are dropped from daily documentation after the RN's review. Continuing problems are documented daily (Potter et al., 2006).
- Problem
- Intervention
- Evaluation



# METHODS OF DOCUMENTATION

Focus Charting (sometimes referred to as DAR)

- This method of documentation consists of notes that include Data, both subjective and objective; Action or nursing interventions; and Response of the client.
- One distinction of focus documentation is its movement away from documenting only problems. Instead, the notes are structured according to client concerns:
  - a sign or symptom
  - a condition
  - a nursing diagnosis
  - a behavior
  - a significant event
  - a change in a client's condition
- Documentation is written in accordance with the nursing process.

# METHODS OF DOCUMENTATION

## Graphic Sheets and Flow Sheets

- Health-care record entries should reflect the most recent assessment, as they are done, to ensure treatment decisions are based on accurate information. If documenting on a flow sheet or checklist, checkmarks may be used as long as it is clear who performed the assessment or intervention.

# METHODS OF DOCUMENTATION

## Charting by Exception (CBE)

This system of health-care recording assessments, interventions, and responses was developed to eliminate redundancy and to organize information in a manner that would reduce errors in documentation. When used following a thorough orientation to the guidelines and protocols established for nursing assessment and intervention, CBE can:

- save time
- reduce repetition of documentation
- provide immediate identification of significant changes in a client's condition

However, in the presence of unclear nursing guidelines or lacking other flow sheets that are needed for recording other care or treatments, CBE can be more prone to legal interpretation of a breach in standards in nursing care.

# METHODS OF DOCUMENTATION

Key elements required for CBE are:

- practice setting documentation policies and protocols
- assessment norms, standards of care
- individualized care plans
- unique flow sheets
- bedside accessibility of documentation forms

It is not acceptable to use documentation by exception unless these exist.

# METHODS OF DOCUMENTATION

## E-health Records

- Has many benefits.
- The same principles apply whether documentation is completed in the paper health-care record or electronically. “Online documentation is defined as a technology that automates the capture of clinical care data.
- In the nursing realm, this can include assessment data, clinical findings, and nursing plans of care, nursing interventions (along with results), patient’s progress toward goals, critical pathways, medication administration, risk assessments, discharge planning, patient education and more” (Kirkley & Rewick, 2003

# METHODS OF DOCUMENTATION

## E-health Record Security

- Electronic documentation systems require security features that protect client confidentiality and that prevent others from modifying documentation entries.
- Once documentation is completed, the program should lock entries so that they become “read only” information.
- The practice setting policies should reference that staff should only have access to healthcare records of clients in their specific area of practice.
- Select staff may be given authority to access all health-care records.
- To heighten security of passwords, they should be required to be changed at specific intervals of time.

# METHODS OF DOCUMENTATION

Guidelines for nurses using electronic health records:

- never reveal or allow anyone else access to your personal identification number or password
- inform your immediate supervisor if there is suspicion that an assigned personal identification code is being used by someone else;
- change passwords at frequent and irregular intervals (as per agency policy);

# METHODS OF DOCUMENTATION

- choose passwords that are not easily deciphered;
- log off when not using the system or when leaving the terminal;
- maintain confidentiality of all information, including all print copies of information;
- shred any discarded print information containing client identification;
- locate printers in secured areas away from public access;
- retrieve printed information immediately;
- protect client information displayed on monitors (e.g., use of screen saver, location of monitor, use of privacy screens);
- use only systems with secured access to record client information; and
- only access client information which is required to provide nursing care for that client; accessing client information for purposes other than providing nursing care is a breach of confidentiality.



# METHODS OF DOCUMENTATION

- In summary, regardless of the method used, registered nurses are responsible and accountable for documenting client care including assessments, interventions carried out, and results of the interventions on client outcomes.
- Clients who are very ill, considered high risk or have complex health-care needs require more comprehensive, in depth and frequent documentation by the registered nurse providing care.

# NURSING DOCUMENTATION

- Nursing Assessment - Documentation should reflect that nursing assessment occurs on a timely and regular basis.
- Diagnostic Reasoning - Documentation should reflect that the individual's health status evaluation is based on the information received and analyzed as a result of nursing assessment.

# NURSING DOCUMENTATION

- Planning - Documentation should reflect that a plan of care is developed based on nursing assessment and diagnostic reasoning.
  - Implementation - Documentation should reflect that the plan developed to meet health needs/problems is being implemented.
1. The nursing notes should reveal that treatment rendered is consistent with the nursing plan of care.
  2. The nursing notes should include information about the status of the health situation or problem, the treatment rendered, and the person's response to treatment.

# NURSING DOCUMENTATION

- Evaluation - Documentation should reflect that outcomes of nursing interventions are carefully evaluated.
  1. The nursing notes should reflect the need to continue and/or change the plan of care.
  2. The nursing notes should reflect changes in the nursing plan of care.
  3. The nursing notes should include information about contacts with primary care prescribers and other members of the interdisciplinary team regarding the person's health status.

# DOCUMENTATION IN THE NURSING PROCESS

STEP	DOCUMENTATION FORMS
Assessment	Initial assessment forms, various flow sheets (graphic record-TPR,BP, weight; fluid chart)
Nursing diagnosis	Nursing care plan, critical pathway (guidelines for health care based on specific medical diagnosis), progress notes, problem list
Planning	Nursing care plan, critical pathway
Implementing	Progress notes, flow sheets
Evaluating	Progress notes

# NURSING CARE PLAN

## Conclusion

## Action

1. Problem resolved
2. Potential problem prevented
3. Possible problem ruled out
4. Actual problem still exists

1. Remove from active problem list.
2. Maintain on the active problem list.  
risk factors remain
3. Remove from active problem list.
4. Maintain on active problem list; care plan may need revision or the same plan may be continued and allow more time for response to treatment.

5. Problem is reduced

5. Maintain on the active problem list; care plan may need revision or the same plan may be continued and allow for more time for response to treatment.

6. All problems resolved

6. No further nursing plan of care is no new problems needed.

# Examples of documents

- Kardex
- Observation charts – temperature charts, glasgow coma scale charts
- Fluid balance charts
- Treatment charts
- Operation charts – pre-operative checklists, anaesthetic charts, operation notes, consent forms
- Incident/ accident forms

# KARDEX

- Is a widely used, concise method of organizing and recording data about a client, making information quickly accessible to all health professionals.
- Consists a series of cards kept in a portable index file or computer-generated forms.



Reconstructive Unit Nursing Kardex

Patient, Sample Shriners Hospital Boston MRN # 1254507 MGH # 894321 (addressograph)		Age 3 yr	Room 730M						
		Weight 18.4 Kg	Physician Culbert						
		Weight order: every QW	Diastres						
Diagnosis 457.7BSA									
Primary Nurse Donna M.		Associates							
Allergies NKDA		Date of injury 11/12/11 457. Scald abuse Admit Date 9/10/12 Transfer date							
FFP <input type="checkbox"/> Local PPD plant <input type="checkbox"/> read <input type="checkbox"/> CXR <input type="checkbox"/> O&P sent <input type="checkbox"/>	VS per unit protocol <input checked="" type="checkbox"/>  Activity: astolerated	Past medical history - asthma (on claritin, flixonir) - eczema - neurochromatosis Hx nightmares - Risperidone 0.25mg QD							
Diet: regular (DAR)		Procedures with date 9/10/12 R+G (R) popliteal fossa							
Tube Feedings: —  NPO protocol for OR 9/21/12 Calorie count <input type="checkbox"/> I&O <input checked="" type="checkbox"/>		<table border="1"> <tr> <td>1</td> <td>0</td> </tr> <tr> <td>30 gh</td> <td>300 water</td> </tr> <tr> <td></td> <td>50 NTC</td> </tr> </table>		1	0	30 gh	300 water		50 NTC
1	0								
30 gh	300 water								
	50 NTC								
GI/GU Due to void — Last BM 1117 NCL small and formed		Induction method: OR Consent <input type="checkbox"/> (continued on back page)							
Respiratory 100% humidified O2 via space mask to keep Sats > than 95%		Labs <input checked="" type="checkbox"/>  X-rays <input checked="" type="checkbox"/>							
IV site (R) AC 9/15 Δ 9/19 22ga IV solution 05LR @ 30ml/hr once q4h		Consults D/C @ time of D/C							
Psych/social needs		Notes afebrile NOL, VSS Diastres							
Precautions standard Culture results 1/16/12 ✓									
Plan: Stent removal 9/21/12		D/C Date: 9/18/12							
Suture removal / /		RTC: 9/21/12 for stent removal <input type="checkbox"/> time?							

# REPORTS

# REPORTING

- The purpose of reporting is to communicate specific information to a person or a group of people.
- A report, whether written or oral should be concise, including pertinent information but not extraneous detail.
- Reporting can include sharing of information or ideas with colleagues and other health professionals.

# Indications for report giving

- Change of shift by the nursing staff
- Required information by team members managing the patient
- Transfer of patients to new department or institution

# REPORTING

Change of shift reports – a report given to all nurses on the next shift. Its purpose is to provide continuity of care for clients by providing the new caregivers a quick summary of client needs and details of care to be given.

- May be written or oral

Telephone reports – nurses inform physicians about a change in a client's condition

# REPORTING

- Telephone orders – physicians often order a therapy for a client by telephone.
- Care plan conference – is a meeting of a group of nurses to discuss possible solutions to certain problems of a client.
- Nursing rounds – two or more nurses visit selected clients at the bedside to:
  - Obtain information that will help plan nursing care
  - Provide clients the opportunity to discuss their care
  - Evaluate the nursing care the client has received.

# Oral reports

- Method varies from place to place
- It can be given from one bed to the last as team members listen and take notes

# Oral reports

## Advantages

- No error in identifying the patient being reported on
- On-the-spot check
- No patient missed
- Useful when the ward has too many patients sharing beds



# Oral reports

## Disadvantages

- No confidentiality
- May create anxiety in the patients

# Written reports

- Written twice a day in the ward for the ward and nursing officer – in charge of the hospital
- Identify the patients to be reported on
- Collect the notes and observation charts to consult while writing reports

# How to write nursing report

- Initiate contact with the patient, perform prescribed care for an ailment, injury, or disease.
- Be objective when writing a nursing report. Be precise.
- Incomplete or inaccurate nursing reports leave everyone at the facility vulnerable long after the care was given.

# Written reports

Should include:

- o Patient Name, room number, age and admission date
- o Diagnosis
- o Code status
- o Allergies
- o Medication Review
- o Isolation precautions
- o Skin/Wound Issues
- o Safety Concerns
- o Central Lines
- o Catheters
- o Focused patient history
- o Abnormal vital signs
- o If on telemetry, most current rhythm (Medicine 4)
- o Untoward events that occurred during the shift
- o Plan of care for the on-coming shift (Scheduled tests/procedures, pending lab work, follow – up consents, orders, etc)
- o Abnormal lab or diagnostic test results
- o Discharge/transfer information

# In charge report

The following elements should be included during a charge nurse report:

- o Staffing expectations/issues
- o Acute Patient Status- who is high acuity/safety concerns
- o Potential admissions/discharges/transfers
- o Significant untoward events during shift

# Documentation and giving reports

CAUTION: DO NOT discuss patient information within hearing range of the patient or with unauthorized personnel.

- Personnel not involved in a patient's care or in medical research will not have access to patient information unless the following situations apply
  - (a) Access required by law (court order)
  - (b) Access needed for hospital accreditation
  - (c) Access authorized by patient

# CONDUCTING WARD ROUNDS

- This is the process of reviewing all patient's management plan and evaluating progress made or need for change in management.
- Purpose: to make a collective decision regarding patient management
- Indications: All patients

# Requirements

Trolley

Top shelf

- Patient care sheets
- Patient treatment sheets
- Extra continuation sheets
- Laboratory , x-ray, other request forms
- Prescription book
- Ward round book
- Investigation reports



# Requirements

Trolley

Bottom shelf

- Tray containing:
- Thermometer
- Patella hammer
- Auroscope and ophthalmoscope
- Stethoscope
- Pins
- Wooden spatula
- Cotton wool
- Torch
- Gloves
- Dressing packs
- Hand towel receiver for dirty swabs

# Procedure

- Wheel the trolley to the bedside where the ward round begins then move from one patient to the other.
- Assist the physician when required as he reviews each patient
- Give pertinent information on patient's condition
- Note new orders on ward round book and cardex
- Give specific instructions to be followed immediately to the patient or nurse involved
- Ensure patient's comfort during the ward round
- Clear the trolley and send the requests to the specific areas.
- Decontaminate and clean any dirty equipment

# Documentation

Record:

- Physical examination results
- Any investigations ordered / done
- Evaluation outcome
- New plan of management

# DISCHARGE OF A PATIENT

- This is nursing intervention during release of a patient from current in-patient care environment

Purpose: to provide effective integration of the patient/ client in the family/ society/ community for optimal functioning

Indications:

- Patients who have recovered
- Patients who are ready to be rehabilitated in the environment of their choice

# Discharge Summary

Discharge summaries highlight the client's illness and course of care.

When a narrative discharge summary is entered into the progress notes, it includes:

- • The client's status at admission and discharge
- • A brief summary of the client's care
- • Intervention and education outcomes
- • Resolved problems and continuing care needs for unresolved problems, inclusive of referrals
- • Client instructions regarding medications, diet, food-drug interactions, activity, treatments, follow-up instructions, and other special needs

# Clinical Monitoring and Management

- Vital signs
- Physiological measurement
- Fluid balance measurement and management
- Assessment, prevention and management of pain

**PAIN  
MANAGEMENT**

# PAIN

- Pain is a highly unpleasant and very personal sensation that cannot be shared with others.
- It can occupy all of a person's thinking, direct all activities and change a person's life.
- It is more than a symptom of a problem.
- Presents both physiologic and psychologic dangers to health and recovery
- Pain is usually transitory, lasting only until the noxious stimulus is removed or the underlying damage or pathology has healed, but some painful conditions, such as rheumatoid arthritis, may persist for years.



# TYPES OF PAIN

- Pain may be acute or chronic. Acute pain is severe and lasts a relatively short time. It is usually a signal that body tissue is being injured in some way, and the pain generally disappears when the injury heals. Chronic pain may range from mild to severe, and is present to some degree for long periods of time.

# PAIN MANAGEMENT

Examples of pharmacological pain relief include the following:

- analgesics (mild pain relievers)
- sedation (usually given by IV)
- anesthesia (usually given by IV)
- topical anesthetics (cream put on the skin to numb the area)
- pain relievers

# INVASIVE PAIN MANAGEMENT TECHNIQUES

- Injections—direct delivery of steroids or anesthetic to nerve, joint or epidural space.
- Prolotherapy— injection of solution to stimulate blood circulation and ligament repair at affected site.
- Surgically implanted electrotherapy devices— implantable spinal cord stimulators (SCS) and implantable peripheral nerve stimulators.
- Implantable opioid infusion pumps— surgically implanted pumps that deliver opioid agents directly to affected nerve.
- Radiofrequency radioablation— deadening of painful nerve via heat produced by a specialized device. The efficacy of this treatment is mixed.

# Non-pharmacological pain management

Non-pharmacological pain management is the management of pain without medications. This method utilizes ways to alter thinking and focus to decrease pain.

Methods include the following:

- psychological -The unexpected is always worse because of what one imagines. Ways to accomplish this include:
  - Explain each step of a procedure in detail, utilizing simple pictures or diagrams when available.
  - Meet with the person who will perform the procedure and ask questions ahead of time.
  - Tour the room where the procedure will take place.
  - may observe a videotape, which describes the procedure

# Non-pharmacological pain management

- hypnosis  
With hypnosis, a professional (such as a psychologist or physician) guides the child into an altered state of consciousness that helps him/her to focus or narrow their attention, in order to reduce discomfort.
- imagery  
Guiding a child through an imaginary mental image of sights, sounds, tastes, smells, and feelings can often help shift attention away from the pain.

# Non-pharmacological pain management

- distraction

Distraction can be helpful particularly for babies, by using colorful, moving objects. Singing songs, telling stories, or looking at books or videos can distract preschoolers. Older children find watching TV or listening to music helpful. Distraction should not be a substitute for explaining what to expect.

- relaxation

Children can be guided through relaxation exercises such as deep breathing and stretching, to reduce discomfort.

# Non-pharmacological pain management

- Exercise—physical exertion with the aim of training or improvement. Includes the McKenzie method, water therapy, flexion exercises, aerobic routines. Exercise is necessary for proper cardiovascular health, disc nutrition, and musculoskeletal health.
- Manual techniques—manipulation of affected areas by means of chiropractic adjustments, osteopathy, massage therapy and other techniques.

# Non-pharmacological pain management

- Behavioral modification—use of behavioral methods to optimize patient responses to back pain and painful stimuli. Cognitive therapy involves teaching the patient to alleviate back pain by means of relaxation techniques, coping techniques, and other methods.
- Cutaneous stimulation —superficial heating or cooling of skin. These pain management methods include cold packs and hot packs, and should be used in conjunction with exercise.
- Electrotherapy —the most commonly known form of electrotherapy is transcutaneous electrical nerve stimulation (TENS). TENS therapy attempts to reduce back pain by means of a low-voltage electric stimulation that interacts with the sensory nervous system.



# Interventions/Rationales

1. Assess the client's level of pain, determining the intensity at its best and worst - Determines a baseline for future assessment.
2. Listen to the client while she discusses the pain; acknowledge the presence of pain - Acknowledging the client's pain decreases anxiety by communicating acceptance and validating the client's perceptions.
3. Discuss reasons why pain may be increased or decreased - Helps the client determine a cause-and-effect relationship between pain and specific activities.

# Interventions/Rationales

4. Teach relaxation techniques such as deep breathing, progressive muscle relaxation, and imagery - Reduces skeletal muscle tension and anxiety, which potentiates the perception of pain.
5. Teach the client and family about treatment approaches (biofeedback, hypnosis, massage therapy, physical therapy, acupuncture, and exercise). - Makes the client and family aware of the availability of treatment options.

# Interventions/Rationales

6. Teach the client about the use of medication for pain relief. Provide accurate information to reduce fear of addiction. - Lack of knowledge and fear may prohibit client from taking analgesic medications as prescribed.
7. Encourage the client to rest at intervals during the day.- Fatigue increases the perception of pain.
8. Explain the relationship between chronic pain and depression. - Knowledge decreases anxiety.

# DRUG ADMINISTRATION

# DRUG ADMINISTRATION

- The administration of medications is controlled by three Acts of Parliament – the Medicines Act (1968), the Misuse of Drugs Act (1971) and the Poisons Act (1972) – and a Statutory Instrument – the Misuse of Drugs Regulations (1985). These provide the framework within which medicines are stored, transported, prescribed, recorded, dispensed and administered.
- The British National Formulary (BNF) provides a summary of the key legal issues for health care practitioners.

# DRUG ADMINISTRATION

- The nurse should always assess a client's health status and obtain a medication history prior to giving any medication.
- The extent of assessment depends on the client's illness or current condition, the intended drug and route of administration.

During drug administration, as a nurse you should:

- knowledge of the drug
- know its effects and potential side effects
- know the patient's condition
- assess the suitability for that medication at that given time.

# DRUG ADMINISTRATION

The A<sup>+</sup>F of safe practice

- To ensure safe administration, some principles of safe practice can be considered.
- Accurate prescription
- Best information
- Correct dispensing
- Deliberation before administration
- Effective systems
- Fail-safe policies.

# Practice guidelines

- Nurses who administer medications are responsible for their own actions.
- Be knowledgeable
- Keep narcotics and barbiturates in a locked place
- Use only medications that are in a clearly labeled container
- Calculate drug dosages accurately
- Administer only medications that are personally prepared
- Identify the client correctly before drug administration
- Do not leave medications on the bedside with certain exceptions e.g cough syrup
- Take special precautions when administering certain medications e.g insulin
- In case of a medication error, report immediately.



# Stages of the medication process

There are five stages of the medication process:

- (a) ordering/prescribing,
- (b) transcribing and verifying,
- (c) dispensing and delivering,
- (d) administering, and
- (e) monitoring and reporting.

# Rights of Medication Administration

## 1. Right patient

- Check the name on the order and the patient.
- Use 2 identifiers.
- Ask patient to identify himself/herself.

## 2. Right medication

- Check the medication label.
- Check the order.

## 3. Right dose

- Check the order.
- Confirm appropriateness of the dose using a current drug reference.
- If necessary, calculate the dose and have another nurse calculate the dose as well.

# Rights of Medication Administration

## 4. Right route

- Again, check the order and appropriateness of the route ordered.
- Confirm that the patient can take or receive the medication by the ordered route.

## 5. Right time

- Check the frequency of the ordered medication.
- Double-check that you are giving the ordered dose at the correct time.
- Confirm when the last dose was given.

## 6. Right documentation

- Document administration AFTER giving the ordered medication.
- Chart the time, route, and any other specific information as necessary.

# Rights of Medication Administration

## 7. Right reason

- Confirm the rationale for the ordered medication. What is the patient's history? Why is he/she taking this medication?
- Revisit the reasons for long-term medication use.

## 8. Right response

- Make sure that the drug led to the desired effect. If an antihypertensive was given, has his/her blood pressure improved?
- Be sure to document your monitoring of the patient and any other nursing interventions that are applicable.

Reference: Nursing2012 Drug Handbook. (2012). Lippincott Williams & Wilkins: Philadelphia, Pennsylvania

# Calculating drug doses

- Example: a prescription requires 30 mg of a drug that is dispensed as
- 60 mg in 5 ml

What you want: 30 mg × total volume:

What you've got: 60 mg

$$5 \text{ ml} = \frac{30 \times 5}{60} = 2.5 \text{ ml required}$$

# Routes of drug administration

- A route of drug administration is the path by which a drug or other substance is brought into contact with the body. Drugs are introduced into the body by several routes. When administering a drug, the nurse should ensure that the pharmaceutical preparation is appropriate for the route specified.

# PARENTERAL

The term parenteral administration implies the routes through which the drug directly reaches the body fluids, by passing the preliminary process of transport through the intestinal wall or pulmonary alveoli which is an essential process when drugs are taken orally, inhaled or administered rectally. Following are the Parenteral routes

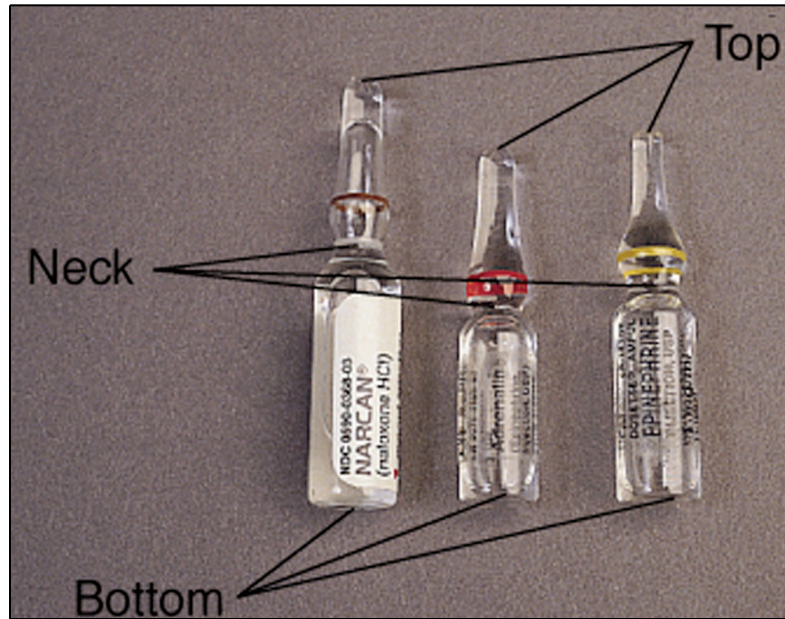
# Techniques for Administering Drugs

- Parenteral drug packaging
  - Ampule – glass or plastic container that is sealed and sterile (open with care)
  - Vial – small bottle with rubber diaphragm that can be punctured by needle



# Ampules and Vials

Ampules



Vials

Self-sealing rubber top



# Parenteral routes syringes



- a) Subcutaneous (S/C)
- b) Intramuscular (I/M)
- c) Intravenous (I/V)
- d) Intraperitoneal (I/P)
- e) Intradermal
- f) Intra Medullary
- g) Intrathecal
- h) Intraarticular
- i) Intra-cardiac
- j) Intra arterial

The Parenteral administration has certain advantages over oral route.

- i) Drug is neither invaded nor destroyed by digestive enzymes.
- ii) A higher concentration of drug in blood may be achieved because the hepatic metabolism of drug due to First-Pass effect is avoided.

- iii) Absorption is complete and predictable.
- iv) In emergency this method is particularly useful. If the patient is unconscious, uncooperative or vomiting, the Parenteral therapy becomes necessary.

However, there are certain disadvantages of the parenteral therapy which are as under:

- i) It is expensive because all the parenteral preparations should be sterilized.

- ii) Asepsis must be maintained to avoid infection.
- iii) An intravascular injection may accidentally occur when it is not actually intended.
- iv) Pain may accompany or follow the injection.
- v) It requires the services of a professionally skilled personnel because it is difficult for the patient to perform the injection himself.

# Types of Oral Medication

1. Lozenges - sweet medicinal tablet containing sugar that dissolve in the mouth so that the medication is applied to the mouth and throat
2. Tablets - a small disc or flat round piece of dry drug containing one or more drugs made by compressing a powdered form of drug(s)
3. Capsules - small hollow digestible case usually made of gelatin, filled with a drug to be swallowed by the patient.
4. Syrups - sugar containing medicine dissolved in water
5. Tinctures - medicinal substances dissolved in water
6. Suspensions - liquid medication with undissolved solid particles in it.
7. Pills and gargle - a small ball of variable size, shape and color some times coated with sugar that contains one or more medicinal substances in solid form taken in mouth.
8. Effervescence - drugs given of small bubbles of gas.
9. Gargle - mildly antiseptic solution used to clean the mouth or throat.
10. Powder - a medicinal preparation consisting of a mixture of two or more drugs in the form of fine particles.





# Medication administration

- Do NOT use Kardex to medicate
- Report any unexpected reactions, medication error, error in preparation by pharmacist
- Observe the 8 rights
- Document and report adverse reactions

# Administering oral medication

## Equipment

- stock and specific personal prescription drugs – ensure adequate supplies, within expiry date
- medicine pots – to dispense individual medication
- disposable cups – to provide a drink to assist easy swallowing of medication, or to dissolve tablets if necessary
- water jug, freshly filled, to ensure water is easily available
- straws – some patients find it easier to take unpalatable medicine through a straw, and a straw may help a patient with swallowing difficulties to wash tablets down more easily
- teaspoons or medicine spoons – to put tablets into a patient's mouth without contaminating the medication

# Administering oral medication

- pestle and mortar – to crush tablets if necessary (NB: check with pharmacist that a liquid form is not available, and that the tablet is suitable to be crushed)
- tablet file or cutter or knife – to divide a tablet evenly (NB: check with pharmacist that smaller doses are not available and that the tablet is suitable for cutting)
- note pad – to keep a record of actions that are to be taken as a result of medication, e.g. re-ordering medication or discharge drugs, or returning to check BP or peak expiratory flow
- drug reference book, e.g. BNF – to check unfamiliar doses or drugs.

# Administering oral medication

## Procedure

- Wash and dry hands.
- Consult the patient's prescription sheet. For regular drug administration times, work systematically from the front page of the prescription sheet to identify the following issues:
  - Has the patient any known allergies?
  - What medication is due, e.g. regular doses? When was it last given?
  - Once-only prescriptions, such as pre-medications: when are they due, or have they been given?
  - Variable doses – these may need to be updated as a result of blood tests; therefore, are they current? Check date.
  - Is analgesia required? If so, when was the last dose and was it effective?
  - Progress of any current intravenous therapy – if a patient has an intravenous infusion in place, then it is an ideal opportunity to check (a) that it is running to time and (b) sufficient is prescribed for the patient's needs over the next shift

# Administering oral medication

- Check each medication prescribed for dose, time, date, route and doctor's signature.
- Select the medicine bottle, checking the name of the drug with that on the prescription sheet. If the patient needs to have a pre- medication check of pulse, blood pressure or peak expiratory flow, now is the time to do that.
- Calculate the dose.
- Tip the required number of tablets into the lid of the container
- If working with another nurse, show the name of the container and the number of tablets to the other person, stating the written dose aloud.

# Administering oral medication

- Tip the dose into the pot. If measuring liquid: ensure the lid is on firmly and then shake the bottle to ensure the contents are well mixed. Put the pot on a level surface, pour the liquid into it, turning the bottle label away so that it does not get dripped on and obscured by medicine. Pour to the required level

# Administering oral medication

- Take the medication to the patient.
- Greet the patient by name and check identity against the prescription sheet label.
- Assist the patient into an upright position to aid swallowing.
- Ensure the patient understands the sequential order to take the medication; for example, antacids are taken after other tablets.
- Do not leave any medicines beside the bed to be taken later. They may get forgotten, knocked over, or consumed accidentally by someone else.

# Administering oral medication

- Document the drug dose and time. If the patient has refused the medication or is nil by mouth, record on the prescription sheet the reasons for withholding the dose according to the local policy code. Report to medical staff.
- Dispose of waste and used containers.
- Monitor the patient for effects such as degree of pain relief, or side effects such as nausea or rashes, and document as necessary.

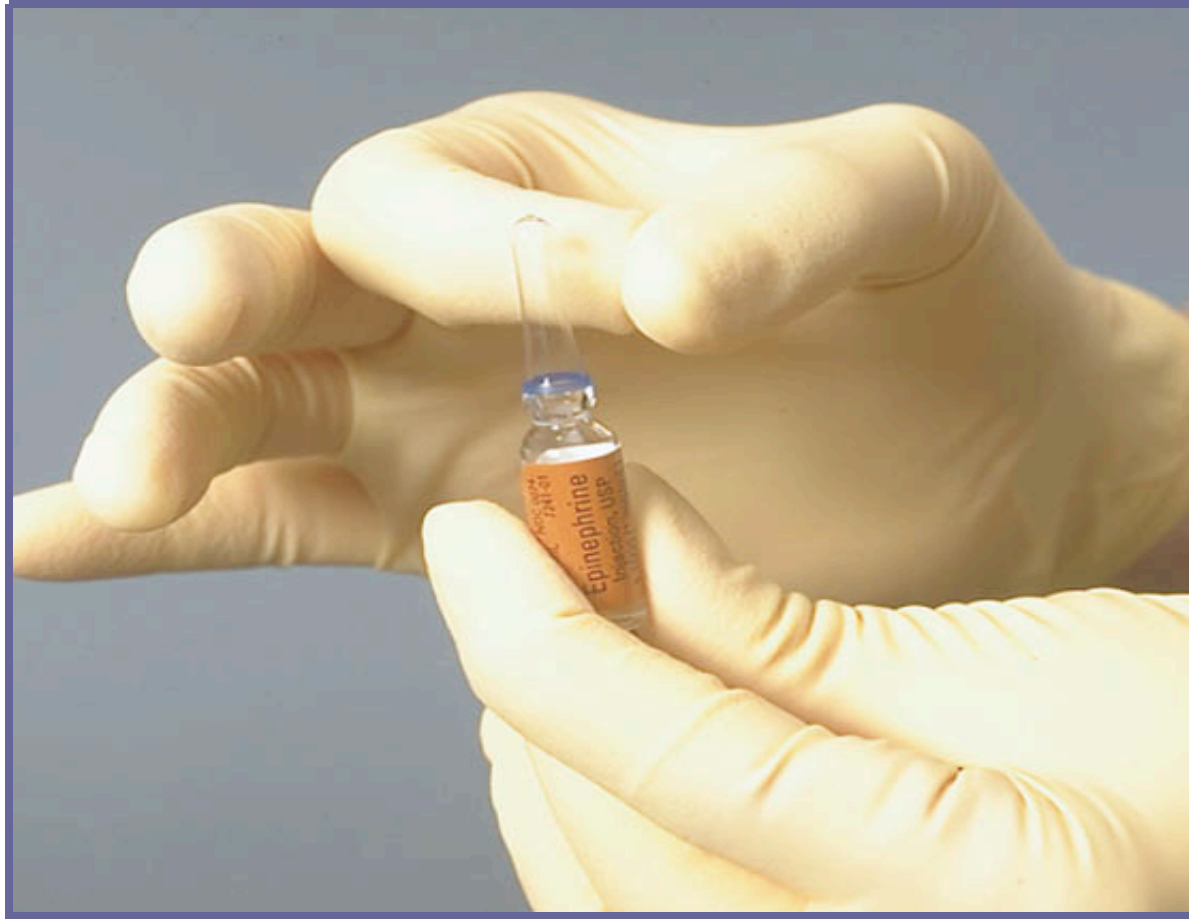


# Information on Drug Labels

- Name of medication
- Expiration date
- Total dose and concentration

# Obtaining Medication from a Glass Ampule

Hold the ampule upright and tap its top to dislodge any trapped solution.



Place gauze around the thin neck...



...and snap it off with your thumb.



Draw up the medication.



# Obtaining Medication from a Vial

Confirm the vial label.





Prepare the syringe  
and hypodermic needle.



Cleanse the vial's rubber top.



Insert the hypodermic needle into the rubber top and inject the air from the syringe into the vial.



The nonconstituted drug vial actually consists of two vials, one containing a powdered medication and one containing a liquid mixing solution.



Nonconstituted drugs come in separate vials.  
Confirm the labels.



Remove all solution from the vial containing the mixing solution.



Cleanse the top of the vial containing the powdered drug and inject the solution.



Agitate or shake the vial to ensure complete mixture.





Prepare a new syringe  
and hypodermic needle.



Withdraw the appropriate volume of medication.



In the Mix-O-Vial system, the vials are joined at the neck. Confirm the labels.



Squeeze the vials together to break the seal.  
Agitate or shake to mix completely.



Withdraw the appropriate volume of medication.



# Intramuscular (IM) injections

- Injections deliver medication directly into the body and are not retrievable.
- It is essential, therefore, to be accurate in identifying safe entry points for injections, and to take the utmost care in administering medication by the parenteral route.
- The intramuscular route delivers injections directly into muscles which have an efficient blood supply and can absorb from 1 ml to 5 ml of medication, depending on the site.

# Considerations before administration by the IM route

- The patient's age: elderly patients may have muscle wasting which may limit the choice of site, and babies who are not yet walking may have underdeveloped muscles, particularly in the buttocks.
- General physical status: emaciated or cachectic patients may also have muscle wasting or poor perfusion and skin condition. Oedematous limbs will not absorb medication as effectively as those with good perfusion.
- The drug therapy: the amount to be given, and the frequency and consistency of medication will influence the choice of location.

# Assessment of appropriate site

- There are five sites that may be used for IM injections: deltoid; dorso-gluteal; ventro-gluteal; and the thigh muscles – vastus lateralis and rector femoris.



# Locating deltoid site

- The densest part of the muscle can be located on the mid-lateral aspect of the arm in line with the axilla, and about 2.5 cm below the acromial process .
- This avoids the radial nerve and brachial artery.
- The typical absorption volume is no greater than 1–2 ml.

# Dorso-gluteal site

- The patient should lie either on their side with knees slightly bent, or prone with toes pointing inwards .
- An imaginary line is drawn across from the cleft of the buttock to the greater trochanter of the femur. Then a vertical line is drawn midway across the first line, and the outer quadrant is identified. This quadrant is then divided into four quadrants: the desired location is the upper outer quadrant
- The aim is to access the gluteus maximus muscle, and to avoid the sciatic nerve and gluteal artery.
- The typical absorption volume is 2–4 ml.

# Vastus lateralis and rector femoris

- These quadriceps muscles are particularly good for toddlers or patients who have wasted muscles as they can be 'bunched up' before injecting
- They can be located by measuring a hand's breadth down from the greater trochanter, and a hand's breadth up from the knee, identifying the middle third of the muscle as the safe location
- The vastus lateralis is located on the side of the leg, and the rector femoris is at the front of the thigh.
- The typical absorption volume is 1–4 ml.

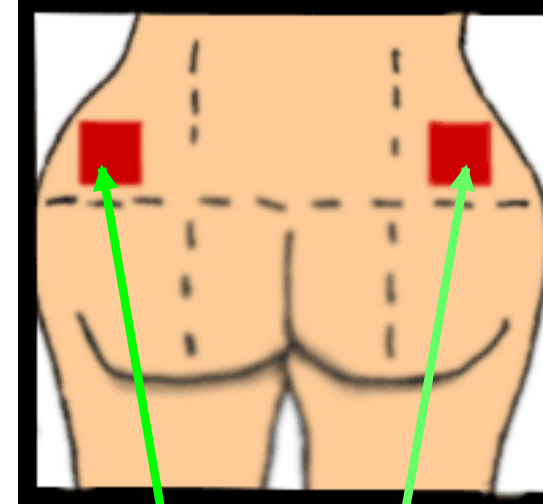
# Intramuscular injection procedure

## Equipment

- 2 ml or 5 ml syringe (depending on amount for injection).
- 2 × 21 (green) or 23 (blue) gauge needle.

Note: a large needle should be used for adults to ensure that it reaches the muscle layer. Short needles may result in the injection going into the adipose tissue, resulting in reduced effectiveness

- Alcohol wipe
- Gauze swab.
- Receiver.
- Prescribed drug and prescription sheet.
- Gloves – to protect from drug spillage and body fluids.
- Apron –for protection as above.



Intramuscular injection in deltoid and gluteal muscles

# Preparing the injection

This is an aseptic procedure and therefore all equipment should be sterile.

- Check all equipment to ensure it is sealed and used within expiry date.
- Wash hands and put on gloves.
- Prepare drug vial. Carry out the same checks as described in the procedure for oral drug administration .

If a glass ampoule is used, flick the top of the ampoule to encourage all fluid to drain into the reservoir. Use a tissue or piece of gauze to protect your fingers from glass cuts when breaking the top off the ampoule. If a vial with a rubber bung is being used, remove the cover using scissors or forceps to prevent injury to your fingers; clean the rubber bung with an alcohol wipe.

# Preparing the injection

- Assemble needle and syringe, taking care not to touch the needle, except for the barrel when connected to the syringe.
- Uncap the needle. It is best practice never to resheath an uncapped needle, even if unused, to prevent needlestick injuries.
- To dilute a drug – if the drug requires mixing with a diluent, or if you are drawing fluid from a closed vial – draw up the equivalent amount of air into the syringe, steady the vial on a flat surface with one hand, and insert the syringe into the vial and inject the vial with the air. This will make it easier to withdraw. Ensure drug is dissolved before aspirating the medication into the syringe.

# Preparing the injection

- Withdraw required amount into the syringe. Remove the vial, and holding the syringe with the needle uppermost, tap the syringe firmly to encourage air bubbles to rise to the top to be expelled.
- Larger syringes may have the connection on the side, rather than the middle of the syringe. To aid the air to rise to the top, tip the syringe to a slight angle so that the air collects under the connection, and keep it at that angle until all the air is expelled.



# Subcutaneous (SC) injections

- Small amounts of medication (0.2–2 ml) are given into the subcutaneous tissue to allow a slow, sustained absorption of medication.
- It is an ideal route for insulin, which requires frequent injections, but is also used regularly for heparin. Preferred sites for self-administered SC injections are the outer upper arms, the upper thighs, and the lower abdomen around the umbilicus.
- Nurses can also use the back of the upper arms, outer thighs and upper buttocks but these are not accessible for self-administration.



# Subcutaneous (SC) injections

## Equipment

- Insulin syringe or 1 ml syringe. If injecting insulin use an insulin syringe with a 25 or 27 gauge needle.
- 2 × 25 or 27 gauge needles (orange).
- Gauze swab.
- Receiver.
- Prescribed drug and prescription sheet.

# Subcutaneous (SC) injections

## Preparing an insulin drug dose

- Preparing an insulin dose may require drawing up from more than one multi-dose vial. The following procedure explains how to do this, and allows you to draw up from an ampoule that has a vacuum in it. If the air were not injected first, it would be very difficult to withdraw insulin as the vacuum within the ampoule would draw in the contents of the syringe and cause mixing of the two different types.
- To prepare an injection from two multi-dose vials

# Subcutaneous (SC) injections

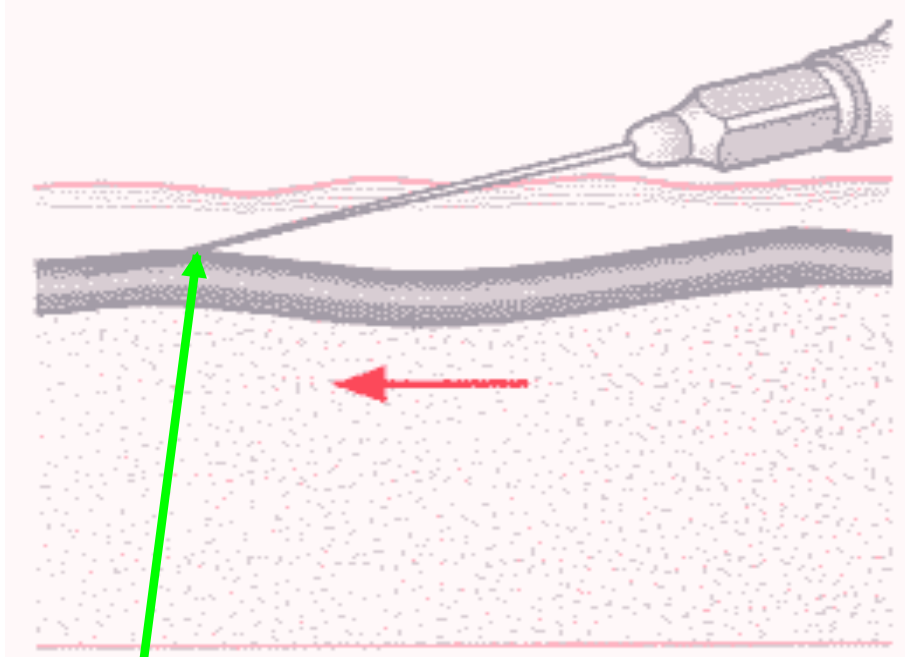
- Clean the rubber bung on both vials with an alcohol wipe.
- Draw air into the syringe to equal the volume of drug to be with- drawn from the first vial.
- With the first vial on a flat surface, insert the needle into the first vial. Do not touch the liquid with the needle, but inject the air and remove the needle.
- Draw air into the syringe to equal the volume of drug to be with drawn from the second vial, insert into the second vial, and inject the air. Then invert the vial and withdraw the required dose, tap to remove air bubbles and expel, and remove needle from vial.
- Return to first vial, clean rubber bung, insert needle, invert vial and withdraw required amount carefully. Remove needle and expel air, taking care not to lose any of the first drug.
- If necessary change the needle before administration. Some disposable insulin syringes have an integral needle which cannot be changed.

# Sites for IV injection

1. Dorsal Venous network
2. Dorsal metacarpal Veins
3. Cephalic Veins
4. Radial vein
5. Ulnar vein
6. Basilic vein
7. Median cubital vein
8. Greater saphenous vein



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Intravenous Administration

## Administering Intradermal Injections:-

1. Check physician's order

2. Prepare equipment:

Draw up 0.1 ml of the medication in a 1 cc syringe  
- ones called a TB/tuberculin syringe.

Collect medication, procedure gloves, alcohol  
wipe, and cotton ball

3. Cleanse the site with an alcohol pad going  
in a circular motion

4. Hold the skin taut



5. Hold the needle at a 15 degree angle to the skin with the bevel facing up.
6. Insert the needle through the skin, just below the epidermis into the dermis.
7. Inject the fluid, making a bubble just below the skin
8. Remove the needle
9. Dispose of used syringe and needle in a Sharps container





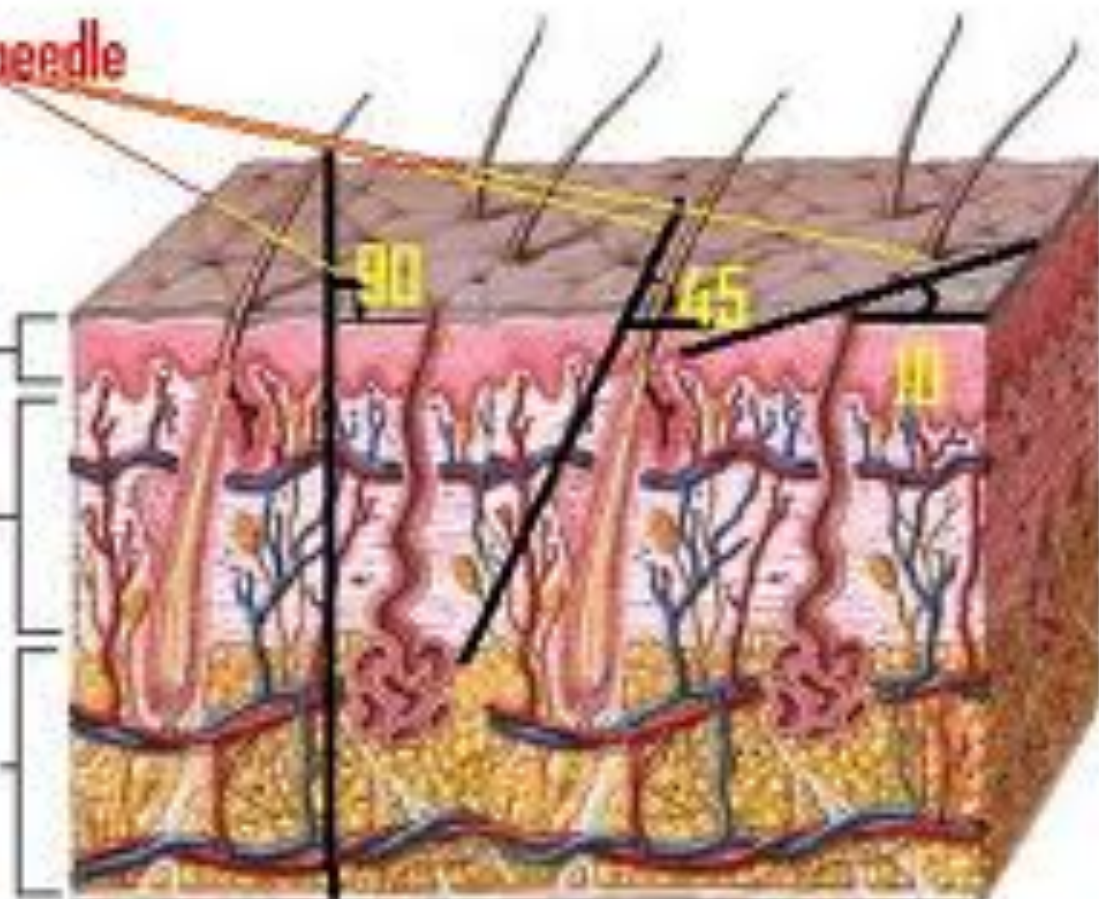
Intradermal Injection

Injection needle

Epidermis

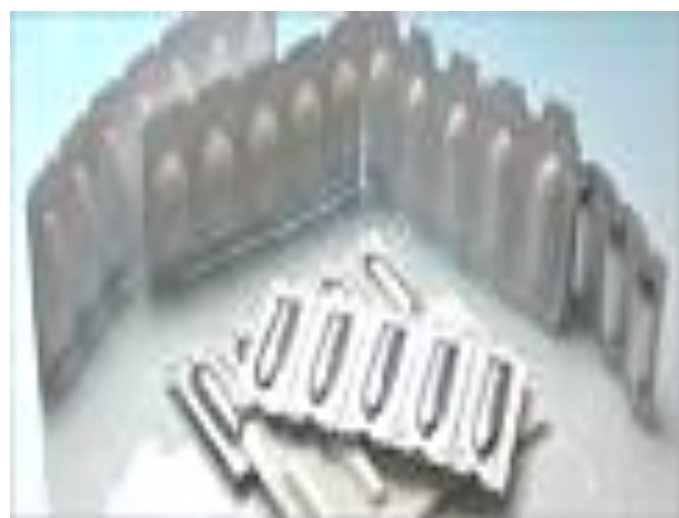
Dermis

Hypodermis



# Rectal medication

- Rectal medication bypasses the upper gastrointestinal tract, avoiding liver metabolism and therefore working quickly. It is suitable for patients who are unconscious, unable to swallow or are vomiting.
- Drugs given by suppository or enema can produce a local effect – e.g. to relieve constipation or treat local inflammation – or can work systemically – e.g. to provide pain relief.



# Rectal medication

- Before administering medications rectally you should check the anal area to ensure there are no signs of rectal bleeding, skin tags, recent anorectal surgery, undiagnosed abdominal pain or paralytic ileus.
- An unhurried and gentle approach should be taken to administering medication rectally, because the procedure can induce vagal stimulation resulting in bradycardia and vasodilation, and on rare occasions may cause the patient to collapse

# Prepackaged enema container





# Administering suppositories

## Equipment

- Tray.
- Prescribed suppositories – as per prescription
- Disposable gloves and apron.
- Lubricant
- Tissues or gauze swabs.
- Protective bed cover such as incontinence pad.
- Waste disposal bag.
- Easy access to toilet, bedpan or commode.

# Inhalation route:



- Used for gaseous and volatile agents and aerosols.
- solids and liquids are excluded if larger than 20 micron. the particles impact in the mouth and throat. Smaller than 0.5 micron , they aren't retained.

## Advantages

A- Large surface area

B- thin membranes separate alveoli from circulation

C- high blood flow

- **As result of that a rapid onset of action** due to rapid access to circulation.

# Metered dose inhaler



## 6- Inhalation route (Cont.)

### Disadvantages

- 1- Most addictive route of administration because it hits the brain so quickly.
- 2- Difficulties in regulating the exact amount of dosage.
- 3- Sometimes patient having difficulties in giving themselves a drug by inhaler.

# Ophthalmic medication

- Ophthalmic medication is usually applied topically, the most common methods being eye drops or ointment.
- These may be used for diagnostic purposes such as dilating the pupil prior to examination; anaesthetizing the eye prior to treatment, or for treatment of eye conditions such as glaucoma or infection.

# Eye/ ear/ nasal drops



# Ophthalmic medication

- Always use separately labelled drug containers for each eye to prevent cross-infection.
- If eye drops and ointment are prescribed to be administered at the same time, give the drops first, then administer ointment several minutes later, as the ointment can prevent absorption of the drops.
- Medication should not be directed onto the cornea of the eye as this may damage the cornea, but directed into the area in the lower eyelid

# Ophthalmic medication

- When clearing discharge from the eye or wiping away excess medication, do not use dry cotton-wool balls as fibres may get into the eye and damage the cornea.
- Always work from the inner canthus (nose side) outwards to edge of eye when applying ointment or swabbing eye to reduce infection risk.
- Medication containers should not touch the eye during administration as they may become contaminated or damage the eye.
- Once an eye medication has been opened, record the starting date on the container and discard after two weeks.
- If both eyes are to be treated but only one is discharging, treat the cleaner eye first to prevent cross-infection. Wash hands between eyes.



# Administering eye medication

## Equipment

- Prescribed medication and prescription.
- Tissues or gauze swabs.
- Sterile saline solution and sterile eye dressing pack containing gallipot and sterile gauze (if eye requires cleansing prior to drug administration).

# Routes of drug administration

ROUTE	ADVANTAGE	DISADVANTAGE
Oral	<ul style="list-style-type: none"> <li>• Most convenient</li> <li>• Usually least expensive</li> <li>☐ Safe, does not break skin barrier</li> <li>☐ Administration usually does not cause stress</li> </ul>	<ul style="list-style-type: none"> <li>• Inappropriate for patients with nausea and vomiting</li> <li>☐ Drug may have unpleasant taste or odor</li> <li>☐ Inappropriate when gastrointestinal tract has reduced motility</li> <li>☐ Inappropriate if patient cannot swallow or is unconscious</li> <li>☐ Cannot be used before certain diagnostic tests or surgical procedures</li> <li>☐ Drug may discolor teeth, harm tooth enamel</li> <li>☐ Drug may irritate gastric mucosa</li> <li>☐ Drug can be aspirated by seriously ill patients</li> </ul>

# Routes of drug administration

ROUTE	ADVANTAGE	DISADVANTAGE
Sublingual	<ul style="list-style-type: none"> <li>• Same as oral route, plus</li> <li>☐ Drug can be administered for local effect</li> <li>☐ More potent than oral route because drug directly enters the blood and bypasses the liver</li> </ul>	<ul style="list-style-type: none"> <li>• If swallowed, drug may be inactivated by gastric juice</li> <li>☐ Drug must remain under tongue until dissolved and absorbed</li> <li>☐ Drug is rapidly absorbed into the bloodstream</li> </ul>
Buccal	• Same as sublingual	☐ Same as sublingual

# Routes of drug administration

ROUTE	ADVANTAGES	DISADVANTAGES
Rectal	<ul style="list-style-type: none"> <li>• Can be used when drug has objectionable taste or odor</li> <li>☐ Drug released at slow, steady rate</li> </ul>	<ul style="list-style-type: none"> <li>• Dose absorbed is unpredictable</li> </ul>
Vaginal	<ul style="list-style-type: none"> <li>☐ Provides a local therapeutic effect</li> </ul>	<ul style="list-style-type: none"> <li>• Limited use</li> </ul>
Topical	<ul style="list-style-type: none"> <li>• Provides a local effect</li> <li>☐ Few side effects</li> <li>☐ Maybe be messy and may soil clothes</li> </ul>	<ul style="list-style-type: none"> <li>• Drug can enter body through abrasions and cause systemic effects</li> </ul>
Transdermal ☐ ☐	<ul style="list-style-type: none"> <li>• Prolonged systemic effect</li> <li>☐ Few side effects</li> <li>☐ Avoids gastrointestinal absorption problems</li> </ul>	<ul style="list-style-type: none"> <li>• Leaves residue on the skin that may soil clothes</li> </ul>

# Routes of drug administration

ROUTE	ADVANTAGES	DISADVANTAGES
Subcutaneous	Onset of drug action faster than oral	Must involve sterile technique because breaks skin barrier <input type="checkbox"/> More expensive than oral <input type="checkbox"/> Can administer only small volume <input type="checkbox"/> Slower than intramuscular administration <input type="checkbox"/> Some drugs can irritate tissues and cause pain <input type="checkbox"/> Can produce anxiety
Intramuscular	<input type="checkbox"/> Pain from irritating drugs is minimized <input type="checkbox"/> Can administer larger volume than subcutaneous <input type="checkbox"/> Drug is rapidly absorbed	<input type="checkbox"/> Breaks skin barrier <input type="checkbox"/> Can produce anxiety

# Routes of drug administration

ROUTE	ADVANTAGES	DISADVANTAGES
Intradermal	Absorption is slow (this is an advantage in testing for allergies)	<ul style="list-style-type: none"> <li>☐ Amount of drug administered must be small</li> <li>☐ Breaks skin barrier</li> </ul>
Intravenous	<ul style="list-style-type: none"> <li>☐ Rapid effect</li> <li>• Entire administered dose reaches the systemic circulation immediately - the Dose can be accurately titrated against response</li> </ul>	<ul style="list-style-type: none"> <li>☐ Limited to highly soluble drugs</li> <li>☐ Drug distribution inhibited by poor circulation</li> <li>• Requires a functioning cannula</li> <li>• More expensive and labour intensive than other routes.</li> <li>• Cannulation is distressing to some patients, especially children</li> <li>• Cannulae are prone to infection</li> <li>• IV injection of drugs may cause local reactions</li> </ul>

## Inhalation

- Introduces drug throughout respiratory tract
- Rapid localized relief
- Drug can be administered to unconscious client
- Drug intended for localized effect can have systemic effect
- Of use only for the respiratory system

# Common causes of Medication Errors

Assuming the physician's order and patient information are correct, there are three general possibilities for mistakes when administering IV medications via a pump:

- dosage miscalculation;
- transcription data entry error;
- titration of the wrong medication.



# Common causes of Medication Errors

- **Miscalculation Error:** A miscalculation error can occur for any number of reasons, including the use of inaccurate parameters such as dose, weight, height, drug units, or solution volume. A misplaced decimal or missing number in this complex calculation can result in a calculation error that may not be immediately apparent to the clinician.

**Data Entry Error:** A transcription type data entry error occurs when a nurse inadvertently inputs the wrong data into the infusion pump. Another type of transcription error is the inputting of an incorrect decimal point. For example, the proper infusion rate is calculated, but the rate is incorrectly entered as 54.0 ml/hr instead of 5.40 ml/hr.

# Common causes of Medication Errors

**Titration Errors:** According to their effect on the patient, many drug delivery rates are changed while the infusion pump is infusing. This type of rate change is called titration. Understanding the medication that is being ordered and the dosage that this drug is routinely given in is key to assuring that the patient is getting the proper dose of medication.

**Transcription Errors:** Being able to read a physicians writing is sometimes a difficult task, get clarity if uncertain about what has actually been written. If taking a verbal or phone order, a "read-back" system can be instituted in which the nurse who is taking the order, writes down the verbal order and reads it back to the prescribing physician.

# Factors associated with medication errors

Include:

- Medications with similar names or similar packaging
- Medications that are not commonly used or prescribed
- Commonly used medications to which many patients are allergic (e.g., antibiotics, opiates, and nonsteroidal anti-inflammatory drugs)
- Medications that require testing to ensure proper (i.e., nontoxic) therapeutic levels are maintained (e.g., lithium, warfarin, theophylline, and digoxin)

# Controlled drugs

To check and administer a controlled drug

- Two people should be involved in the administration procedure of all controlled drugs, and where these two are nurses, one must be a registered nurse.
- The prescription is checked as for usual medication. In addition, consider the time of the previous dose of controlled drug – is it within the prescribed time period? Has the patient already received his allotted dose?
- Take the appropriate drug from the locked cupboard and compare it with the prescription sheet. Verify the dose and name of the drug. Check the quantity in the box with the record book and remove the drug from the container. Check that the remaining ampoules or tablets tally with the record book, and return the remainder to the cupboard and lock it.

# Controlled drugs

- Check the dose required, route, time, and patient's identity on the prescription.
- Prepare the appropriate amount of drug required, discarding any excess in the sink.
- In the controlled drug record book, document (a) the patient details, (b) date and time, (c) dose given, (d) dose discarded, and (e) the amount of remaining stock.
- Both persons should go to the bedside, where the patient's identity should be confirmed and the prescription dose, time and route should be checked again.
- Administer the medication by the prescribed route, and document this on the prescription sheet and in the controlled drug record.

# PERIOPERATIVE NURSING

# PERIOPERATIVE NURSING

Encompasses three phases:

- Preoperative – begins when decision to have surgery is made and ends when client is transferred to operating table.
- Intraoperative – begins when client is transferred to operating table and ends when is admitted to the recovery room.
- Postoperative – begins with admission to recovery room and ends when healing is complete.

# PURPOSES OF SURGERY

- Diagnostic
- Palliative
- Ablative – removes a diseased body part
- Constructive
- Transplant



# Responsibilities of a nurse

- Provide safe, effective and consistent nursing care during each phase of surgery.
- Continuity of care
- Assess the individual's health
- Identify specific needs

# PRE-OPERATIVE PHASE

- Pre-operative informed consent
- Nursing management
  - Assessment – includes collecting and reviewing specific client data to determine client needs both pre and postoperatively
  - Nursing history – to plan
  - Physical assessment
  - Screening tests

# PRE-OPERATIVE PHASE

## DIAGNOSIS

- Deficient knowledge
- Fear related to effects of surgery on ability to function in usual roles; risk of death; perceived inadequate postoperative analgesia
- Disturbed sleep pattern related to hospital routines; psychologic stress
- Anticipatory grieving related to perceived loss of body part associated with planned surgery
- Ineffective coping related to conflicting values e.g need for blood transfusion versus religion; lack of clear outcomes of surgery.

# PRE-OPERATIVE PHASE

## PLANNING

- Goal is to ensure that the client is mentally and physically prepared for surgery
- Should involve the client and support people
- Plan for home care
- Discharge planning – incorporates client's and support people's abilities and resources for care.

# PRE-OPERATIVE PHASE

## PRE-OPERATIVE CHECKLIST

- Patient's name
- Consent form signed
- Patient starved
- Jewellery/ dentures/ other prostheses removed
- Bladder emptied
- Baseline observations taken
- Allergies noted
- Available lab works/ x-rays/ blood for transfusion
- Theatre gown
- Shaving (prn)

# PRE-OPERATIVE PHASE

## IMPLEMENTATION

- Preoperative teaching – information; skills training; psychosocial support
- Physical preparation – nutrition and fluids; elimination; hygiene; medications; rest and sleep; valuables; prostheses; skin preparation; vital signs

## EVALUATION

- Goals are evaluated according to desired outcomes

# PREOPERATIVE INSTRUCTIONS

- Explain the need for preoperative tests
- Discuss bowel preparation if required
- Discuss skin preparation including operative area and preoperative bath
- Discuss preoperative medications if ordered
- Discuss the visit by the anaesthetist
- Provide a general timetable for perioperative events
- Discuss the need to remove jewelery, make-up and all prostheses
- Teach deep breathing, coughing, leg exercises, ways to turn and move and splinting techniques

# POST OPERATIVE REGIMEN

- Discuss the post-anaesthesia recovery room's routines and emergency equipment
- Review type and frequency of assessment activities
- Discuss pain management
- Explain usual activity restrictions and precautions related to getting up for the first time postoperatively
- Describe usual dietary alterations
- Discuss postoperative dressings and drains
- Provide an explanation and tour of ICU if client is to be transferred postoperatively



# INTRAOPERATIVE PHASE

## ASSESSMENT

- Nurse confirms patient's identity and assesses physical and emotional status
- Assessment continues throughout surgery; monitor client's vital signs

## DIAGNOSING

- Risk for aspiration
- Impaired skin integrity
- Risk for imbalanced body temperature
- Ineffective tissue perfusion
- Risk for deficient fluid volume

# INTRAOPERATIVE PHASE

## PLANNING

- The overall goals are to maintain client's safety and to maintain homeostasis.

## IMPLEMENTING

- Surgical skin preparation – cleaning surgical site; shaving if necessary; applying antimicrobial agent
- Positioning – ideal positioning provides optimal visualization and access to the surgical site; optimal access for assessing and maintaining anaesthesia and vital function; protection of client from harm.

# INTRAOPERATIVE PHASE

## EVALUATING

- The intraoperative nurse uses the goals developed during the planning phase and collects data to evaluate whether the desired outcomes have been achieved.
- Documentation – throughout the intraoperative phase.

# POSTOPERATIVE PHASE

- Important for client's recovery

## ASSESSING

- The nurse checks physician's stat orders; operation performed; presence and location of any drains; anaesthetic used; postoperative diagnosis; estimated blood loss, medication administered in operating room
- Level of consciousness
- Vital signs
- Skin colour and temperature
- Comfort
- Fluid balance
- Dressing and bedclothes

# POSTOPERATIVE PHASE

## DIAGNOSING

Actual and potential NANDA diagnoses include:

- Acute pain
- Risk for infection
- Risk for injury
- Risk for deficient fluid volume
- Ineffective airway clearance
- Ineffective breathing pattern
- Self care deficit
- Disturbed body image

# POSTOPERATIVE PHASE

## PLANNING

- Postoperative care planning and discharge planning begin in the preoperative phase

## IMPLEMENTING

- Pain management
- Positioning
- Deep breathing and coughing and Leg exercises
- Moving and ambulation
- Hydration
- Diet
- Urinary elimination
- Suction
- Home care teaching

# POSTOPERATIVE PHASE

## EVALUATING

- The nurse collects data to evaluate whether the identified goals and desired outcomes have been achieved.
- If the desired outcomes are not achieved, the nurse and client and support people need to explore the reasons before modifying the care plan.

# SPECIMEN COLLECTION



# Specimen collection

- Specimen collection refers to collecting various specimens (samples), such as, stool, urine, blood and other body fluids or tissues, from the patient for diagnostic or therapeutic purposes.
- Various types of specimen collected from the patient in the clinical settings, either in out patient departments (OPD) or in-patient units, for diagnostic and therapeutic purposes.

# General considerations

- When collecting specimen, wear gloves to protect self from contact with body fluids.
  1. Get request for specimen collection and identify the types of specimen being collected and the patient from which the specimen collected.
  2. Give adequate explanation to the patient about the purpose, type of specimen being collected and the method used.

# General considerations

3. Assemble and organize all the necessary materials for the specimen collection.
4. Get the appropriate specimen container and it should be clearly labeled have tight cover to seal the content and placed in the plastic bag or racks, so that it protects the laboratory technician from contamination while handling it.

# SPECIMEN COLLECTION

- Apply strict aseptic techniques throughout the procedure.
- Wash hands before and after the collection.
- Collect the specimen at the appropriate phase of disease.
- Make certain that the specimen is representative of the infectious process (e.g. sputum is the specimen for pneumonia and not saliva) and is adequate in quantity for the desired tests to be performed.
- Collect or place the specimen aseptically in a sterile and/or appropriate container.

# SPECIMEN COLLECTION

- Ensure that the outside of the specimen container is clean and uncontaminated.
- Close the container tightly so that its contents do not leak during transportation.
- Label and date the container appropriately and complete the requisition form.
- Arrange for immediate transportation of the specimen to the laboratory.

# Criteria for rejection of specimen

- Missing or inadequate identification.
- Insufficient quantity.
- Specimen collected in an inappropriate container.
- Contamination suspected.
- Inappropriate transport or storage.
- Unknown time delay.
- Haemolysed blood sample.

# DOCUMENTATION

## Patient Request Form

- The provider will complete the “Patient Request Form” with the following information at a minimum:
- Date collected
- Patient’s first and last name
- Chart number
- Age
- Source of specimen
- Test(s) requested

# DOCUMENTATION

1. Time specimen collected.
2. Color and consistency
3. Test collected for.
4. Condition of skin.



# BLOOD SAMPLE

- Whole blood is required for bacteriological examination.
- Serum separated from blood is used for serological techniques.
- Skin antisepsis is extremely important at the time of collection of the sample.

# BLOOD SAMPLE

While collecting blood for culture, the following points must be remembered:

- Collect blood during the early stages of disease since the number of bacteria in blood is higher in the acute and early stages of disease.
- Collect blood during paroxysm of fever since the number of bacteria is higher at high temperatures in patients with fever.
- Small children usually have higher number of bacteria in their blood as compared to adults and hence less quantity of blood needs to be collected from them.

Purpose:

To observe, examine or test for diagnosis

# Cerebrospinal fluid (CSF)

- Examination of CSF is an essential step in the diagnosis of any patient with evidence of meningeal irritation or affected cerebrum.
- Almost 3-10 ml of CSF is collected and part of it is used for biochemical, immunological and microscopic

# Cerebrospinal fluid (CSF)

Precautions to be taken for CSF collection and transportation:

- Collect CSF before antimicrobial therapy is started.
- Collect CSF in a screw – capped sterile container and not in an injection vial with cotton plug.
- Do not delay transport and laboratory investigations.
- Transport in a transport medium if delay in processing is unavoidable.
- CSF is a precious specimen, handle it carefully and economically. It may not be possible to get a repeat specimen.
- Perform physical inspection immediately after collection and indicate findings on laboratory requisition form.
- Store at 37°C, if delay in processing is inevitable.

# Sputum specimen

## Patient preparation

- Before collecting sputum specimen, teach patient about the difference between sputum and saliva, how to cough deeply to raise sputum.
- Position the patient, usually sitting up position. Also postural drainage can be used.
- Give oral care, to avoid sputum contamination with microorganisms of the mouth.

Avoid using tooth paste because it alter the result.

# Sputum specimen

## Obtain specimen

- Put on gloves, to avoid contact with sputum particularly if hemoptysis (blood in sputum) present.
- Ask patient to cough deeply to raise up sputum
- Take usually about 15-30 ml sputum
- Ask patient to spit out the sputum into the specimen container
- Make sure it doesn't contaminate the outer part of the container. If contaminated clean with disinfectant
- Cover the cap tightly on the container

# Sputum specimen

Re-comfort the patient

- Give oral care following sputum collection (To remove any unpleasant taste)

Care of the specimen and the equipments used

- Label the specimen container
- Arrange or send the specimen promptly and immediately to laboratory.
- Give proper care of equipments used

Document the amount, color, consistency of sputum, (thick, watery, tenacious) and presence of blood in the sputum.



# URINE SPECIMEN

## URINE

- The clinical information obtained from a urine specimen is influenced by the collection method, timing and handling.

## Types of Collection

- Random Specimen This is the specimen most commonly sent to the laboratory for analysis, primarily because it is the easiest to obtain and is readily available.

# URINE SPECIMEN

- **First Morning Specimen** This is the specimen of choice for urinalysis and microscopic analysis, since the urine is generally more concentrated (due to the length of time the urine is allowed to remain in the bladder) and, therefore, contains relatively higher levels of cellular elements and analytes such as protein, if present.
- **Midstream Clean Catch Specimen** This is the preferred type of specimen for culture and sensitivity testing because of the reduced incidence of cellular and microbial contamination.

# URINE SPECIMEN

- **Timed Collection Specimen** A timed specimen is collected to measure the concentration of these substances in urine over a specified length of time, usually 8 or 24 hours. In this collection method, the bladder is emptied prior to beginning the timed collection.
- **Catheter Collection Specimen** This assisted procedure is conducted when a patient is bedridden or cannot urinate independently.

# URINE SPECIMEN

- **Suprapubic Aspiration Specimen** This method is used when a bedridden patient cannot be catheterized or a sterile specimen is required. The urine specimen is collected by needle aspiration through the abdominal wall into the bladder.
- **Pediatric Specimen** For infants and small children, a special urine collection bag is adhered to the skin surrounding the urethral area.

# URINE SPECIMEN

- Note any abnormal characteristics such as:
  - Unusual color (e.g., specimen is blue),
  - Presence of foreign objects or material,
  - Unusual odor (e.g., bleach), or
  - Signs of adulteration (e.g., excessive foaming when shaken).

# URINE SPECIMEN - collection

- All urine collection and/or transport containers should be clean and free of particles or interfering substances.
- The collection and/or transport container should have a secure lid and be leak-resistant.
- Use containers that are made of break-resistant plastic, which is safer than glass.
- The container material should not leach interfering substances into the specimen.

# URINE SPECIMEN - collection

- Specimen containers should not be reused.
- A primary collection container should hold at least 50 mL, has a wide base and an opening of at least 4 cm. The 24-hour containers should hold up to 3L.
- sterile collection containers for microbiology specimens.
- Transport tubes should be compatible with automated systems and instruments used by the lab.
- Proper labeling should be applied to the collection container or tubes.

# URINE SPECIMEN HANDLING GUIDELINES

- Labels Include the patient name and identification on labels. Make sure that the information on the container label and the requisition match.
- Volume Ensure that there is sufficient volume to fill the tubes and/or perform the tests.
- Collection Date and Time Include collection time and date on the specimen label. This will confirm that the collection was done correctly. For timed specimens, verify start and stop times of collection.



# URINE SPECIMEN HANDLING GUIDELINES

- **Collection Method** The method of collection should be checked when the specimen is received in the laboratory to ensure the type of specimen submitted meets the needs of the test ordered.
- **Proper Preservation** Check if there is a chemical preservative present or if the specimen has not been refrigerated for greater than two hours post collection.
- **Light Protection** Verify that specimens submitted for testing of light-sensitive analytes are collected in containers that protect the specimen from light.

# STOOL SPECIMEN

## Definition

- Stool specimen collection is the process of obtaining a sample of a patient's feces for diagnostic purposes.

## Purpose

- This procedure is used to test for infectious organisms, mucus, fat, parasites, or blood in the stool.

## Precautions

- Depending on the proposed analysis of the feces, watery feces will not be suitable for conducting a test for any fat that may be present, but can be used for other analyses, such as testing for bacteria.

# STOOL SPECIMEN

Stool specimen can be tested for:

- Ova and cysts
- Occult blood e.g in peptic ulcer, iron deficiency anaemia
- Leucocytes - Chronic ulcerative colitis and chronic bacillary dysentery can cause passage of pus with the stool.

# Stool specimen

## Procedure

- Adult and older children patient can collect the specimen by passing feces into plastic wrap stretched loosely over the toilet bowl.
- With young children and infants wearing diapers, the diaper should be lined with plastic wrap. A urine bag can be attached to the child to ensure that the stool specimen is not contaminated with urine.
- For a bedridden patient, the specimen should be collected in a bedpan lined with plastic wrap, and the nurse can transfer a portion of the feces into the appropriate container.

# Stool specimen

## Preparation

- If occult blood is suspected, the patient should be given a mild laxative and should avoid eating foods rich in meat extracts or leafy vegetables three days prior to the test.
- If the patient's gums bleed when brushing their teeth, the mouth should be cleansed with mouthwash and wiped with a cloth to avoid blood entering the digestive system and contaminating the stool specimen.

# Stool specimen

## Preparation

- Certain drugs may interfere with the analysis of the specimen, and the patient should avoid ingesting products such as antacids, oily foods and drugs, and antibiotics.
- Barium sulphate should be excluded two weeks prior to the test, and medical procedure dyes three weeks prior to the test.
- If fat in the stool is suspected, the patient will also be asked to collect the samples in pre-weighed airtight containers.

# Stool specimen

## Guidelines

- The faeces specimen should not be contaminated with urine.
- Do not collect the specimen from bed pan.
- Collect the specimen during the early phase of the disease and as far as possible before the administration of antimicrobial agents.
- 1 to 2 gm quantity is sufficient.
- If possible, submit more than one specimen on different days.
- The fresh stool specimen must be received within 1-2 hours of passage.

# Stool specimen

## Aftercare

- The patient should be made clean and comfortable.
- All contents of kits, towels, plastic wrap, gloves, and bedpans should be disposed of in appropriate containers. The nurse should wash and dry his or her hands thoroughly.
- Speed in testing the sample is essential, in order that an accurate result is obtained. Therefore the specimen should be sent for testing as quickly as possible.



# Stool specimen

## Complications

- If there is a delay in sending the specimen for testing, organisms present in the feces may die, while others may multiply, giving a false reading.
- Patients should inform medical staff of any medications currently being taken as elements of the drugs may be present in the feces.

# Stool specimen

## Results

- The specimens are compared with normal values. Abnormal results indicate that infection, disease, or parasite infestation are present.

## Health care team roles

- The nurse should be aware of the qualities of normal feces, and note if the patient has any difficulties in passing feces.
- As many patients may feel uncomfortable performing this collection properly, the nurse should also educate the patient concerning the reasons for having it done.

# WOUND DRESSING

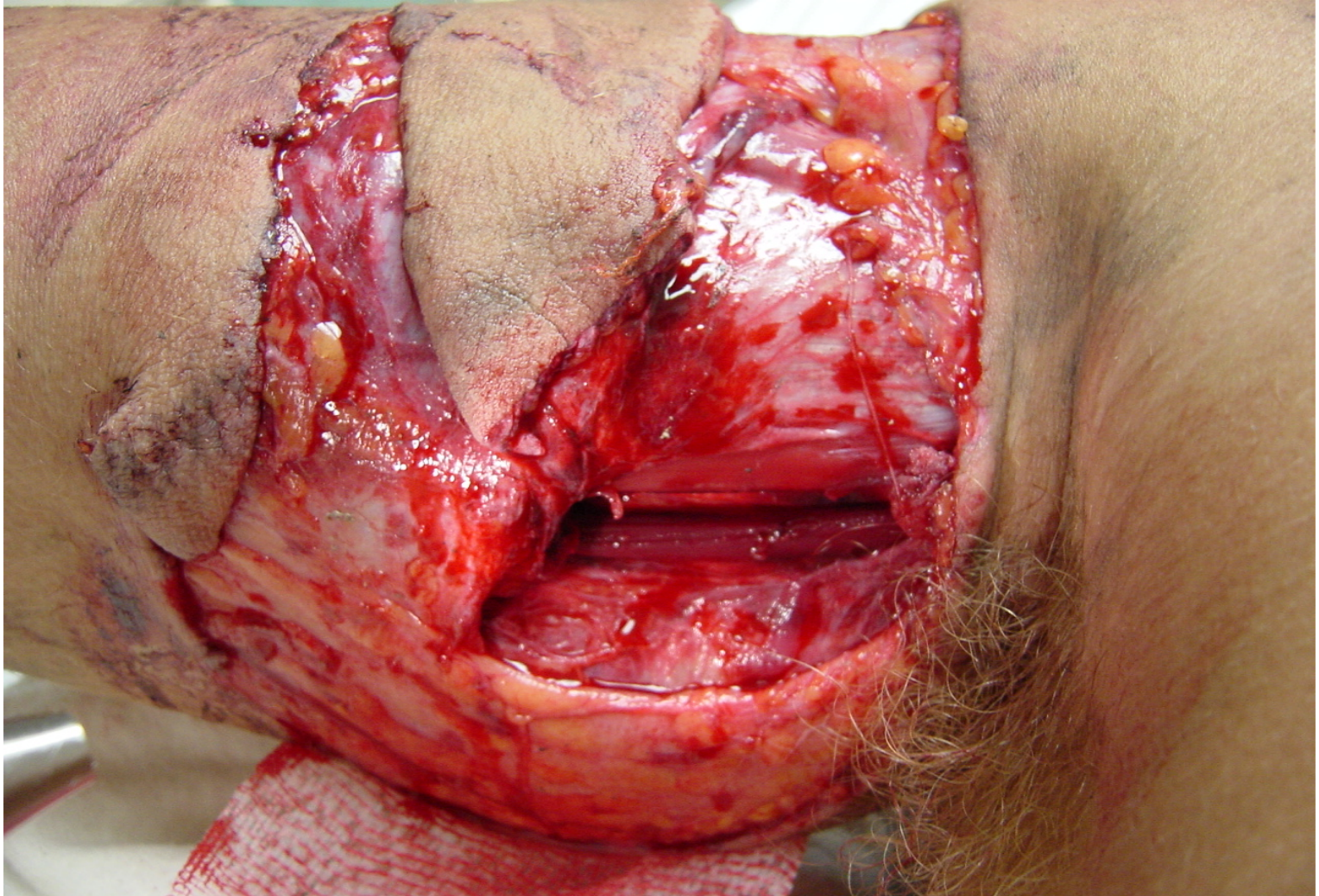
# Introduction

- The skin is the largest organ of the body, making up 16% of body weight. It has several vital functions, which include; immune function, temperature regulation, sensation and vitamin production.
- Skin is a dynamic organ in a constant state of change; cells of the outer layers are continuously shed and replaced by inner cells moving to the surface.

# TYPES OF WOUNDS

- Body wounds are either intentional e.g during therapy like venupuncture or unintentional/accidental e.g fracture
- Open wounds – skin or mucous membranes is broken; Closed wound– tissues are traumatized without a break in the skin.

# Open wound



# Open wound



# Crush wounds









# TYPES OF WOUNDS

Wounds may also be described according to how they are acquired.

- Clean wounds – minimal inflammation- closed
- Clean-contaminated wounds – surgical wounds
- Contaminated wounds – open, fresh, accidental wounds and surgical wounds involving a major break in sterile technique; show evidence of inflammation.
- Dirty/ infected wounds – contain dead tissue with evidence of a clinical infection e.g purulent drainage.

# Classification of wounds by cause

- intentional
  - involves a wound that is the result of planned therapy
- unintentional
  - involves a wound that is the result of unexpected trauma
- by status of skin integrity
  - open
    - involves a break in skin integrity or mucous membrane
  - closed
    - involves no break in skin integrity or mucous membrane
- by severity of injury
  - superficial
    - involves only the epidermal layer of skin
  - penetrating
    - involves penetration of the epidermal and dermal layers of skin and deeper tissues or organs

# Classification of wounds by cause

- by degree of contamination
  - clean
    - uninfected wounds in which no inflammation is encountered and the respiratory, gastrointestinal, genital, and/or urinary tracts are not entered
  - clean/contaminated
    - uninfected wounds in which no inflammation is encountered but the respiratory, gastrointestinal, genital, and/or urinary tract have been entered
  - contaminated
    - open, traumatic wounds or surgical wounds involving a major break in sterile technique that show evidence of inflammation
  - infected
    - old, traumatic wounds containing dead tissue and wounds with evidence of a clinical infection (e.g., purulent drainage)

# Classification of wounds by cause

- by depth
  - partial-thickness
    - involves only the epidermal and dermal layers of skin
  - full-thickness
    - involves the epidermal and dermal layers of skin, subcutaneous tissue and, possibly, muscle and bone
- by descriptive qualities
  - laceration
    - involves tearing apart of tissues resulting in irregular wound edges
  - abrasion
    - involves scraping or rubbing the surface of the skin by friction
  - contusion
    - involves a blow from a blunt object resulting in swelling, discoloration, bruising, and/or ecchymosis
  - incision
    - involves cutting the skin with a sharp instrument
  - puncture
    - involves penetration of the skin and, often, the underlying tissues by a sharp instrument

# Types of wound drainage

- serous exudate
  - consists chiefly of serum derived from blood and serous membranes of the body
- sanguineous
  - consists of serum and red blood cells
- purulent
  - consists of serum and pus (leukocytes, liquefied living and dead bacteria, dead tissue debris)

# Wound healing

- Types of wound healing
  - primary intention healing
  - Secondary intention
- Phases of wound healing
  - Inflammatory
  - Proliferative
  - Maturation
- Complications of wound healing
  - Haemorrhage
  - Infection
  - Dehiscence with possible evisceration



# Factors affecting wound healing

- Developmental considerations
- Nutrition
- Lifestyle
- Medications e.g anti-inflammatory drugs like aspirin

# Dressing wounds

## Purposes

- Protect the wound from mechanical injury
- Protect wound from microbial contamination
- Provide/ maintain high humidity of the wound
- Provide thermal insulation
- Absorb drainage or debride a wound or both
- Prevent haemorrhage
- Splint or immobilize the wound site thereby facilitate healing and prevent injury.

# Types of dressings

- type of dressing used depends on:
  - the location, size, and type of the wound
  - the amount of exudate
  - whether the wound requires debridement, is infected, or has sinus tracts
  - frequency of dressing change, ease or difficulty of dressing application, and cost

# Dressing Materials

- The best material to use for dressings is plain cotton gauze.
- Usually, all that is needed is just enough gauze to cover the wound lightly; multiple layers are unnecessary and wasteful.

# Dressing solutions

- Betadine
- Normal saline
- Ointments – silver sulphadiazine, Bacitracin

# Types of dressings

## Wet-to-Dry

- Indication
- The objective of the wet-to-dry dressing technique is to clean a wound or to prevent build-up of exudate. It is called a “wet-to-dry” dressing because you place a moist dressing on the wound and allow it to dry.
- When the dressing is removed, it takes with it the exudate, debris, and nonviable tissue that have become stuck to the gauze.
- Wet-to-dry dressings are indicated for wounds that are dirty or infected.

# Types of dressings

## Technique

- Moisten a gauze dressing with solution, and squeeze out the excess fluid. The gauze should be damp, not soaking wet.
- Completely open the gauze (it usually comes folded), and place it on the wound. You do not need many layers. Then cover with a thin layer of dry gauze.

# Types of dressings

- Optimally, a wet-to-dry dressing should be changed 3–4 times/day, depending on how much debridement is needed.
- The dressing should be changed more frequently for a dirty wound than for a clean wound.



# Types of dressings

## Wet-to-Wet

### Indication

- A wet-to-wet dressing does not debride the wound, which remains as it is. The dressing remains wet so that when the gauze is removed, the top layers of the healing wound are not removed with it.
- This dressing should be used on clean, granulating wounds with no overlying exudate in need of removal.

# Types of dressings

## Technique

- Moisten the gauze dressing with solution. It should not be soaking wet, but it should be a little wetter than damp. Unfold the gauze, place it over the wound, and then cover with dry gauze.
- The dressing should still be wet or damp when it is changed. If the bottom layer of gauze has dried out, saturate the gauze with saline or water before removal.

## How Often?

- The wet-to-wet dressing should be changed at least twice a day to prevent drying.

# Types of dressings

## Antibiotic Ointment

### Indication

- Antibiotic ointment may be used as an alternative to wet-to-wet dressings for a clean wound that is healing well and has no need for debridement.

### Technique

- Coat the wound with a small amount of ointment. A thick layer of antibiotic ointment over the wound offers no advantage and wastes supplies.
- Cover with a dry gauze if the wound is large or if it is in an area that will be covered with bed clothing or rubbed by clothing. Otherwise the wound can be left open to air with the antibiotic ointment alone.

### How Often?

- Remove the old ointment with gentle soap and water or saline, and reapply the ointment once or twice a day.

# When to do which dressing

Remember, the goal is to promote healing. We know that a moist environment facilitates healing.

- For a clean wound, it is best to use a wet-to-wet or ointment based dressing
- For a wound in need of debridement the wet-to-dry technique should be done until the wound is clean and then change to a different dressing regimen.
- For a wound covered with necrotic tissue, dressings cannot take the place of mechanical debridement. When present, necrotic tissue must be sharply debrided and then the wound treated with appropriate dressings.

# Sterile Technique vs. Clean Technique

- Sterile technique uses instruments and supplies that have been specifically treated so that no bacterial or viral particles are present on their surfaces. Examples of sterilized supplies include instruments that have been autoclaved (subjected to high temperatures to kill microorganisms) and gauze and gloves that have been especially prepared at the factory and are individually packaged. Procedures in an operating room are usually done with sterile technique.
- Gauze usually comes folded into a square. For dressings, it is best to open the gauze so that a single layer is in contact with the open wound.

# Sterile Technique vs. Clean Technique

- Clean technique uses instruments and supplies that are not as thoroughly treated to rid surfaces of all microorganisms. Nonsterile gloves and gauze, which come many in a package, are examples of “clean” supplies. Clean supplies are less expensive than sterile supplies. Hence, appropriate use of clean techniques can save valuable resources.

# Cleansing the wound

- All wounds should be thoroughly cleansed to allow full examination and subsequent closure. This will remove all loose particulate matter and decrease bacterial content. Remember, this can be painful, so whenever possible start by injecting local anesthetic around the wound.

# Wound cleansing

- Requires the application of fluid to clean the wound and optimise the healing environment.

The goal of wound cleansing is to:

- Remove visible debris and devitalised tissue
- Remove dressing residue
- Remove excessive or dry crusting exudates



# Wound cleansing

## Principles:

Wound cleansing should not be undertaken to remove 'normal' exudate

- Cleansing should be performed in a way that minimises trauma to the wound
- Wounds are best cleansed with sterile isotonic saline or water
- The less we disturb a wound during dressing changes the lower the interference to healing
- Fluids should be warmed to 37°C to support cellular activity

# Wound cleansing

- Skin and wound cleansers should have a neutral pH and be non-toxic
- Avoid alkaline soap on intact skin as the skin pH is altered, resistance to bacteria decreases
- Avoid delipidising agents as alcohol or acetone as tissue is degraded
- Antiseptics are not routinely recommended for cleansing and should only be used sparingly for infected wounds

# Wound cleansing

## Method:

- Irrigation is the preferred method for cleansing open wounds. This may be carried out utilising a syringe in order to produce gentle pressure - in order to loosen debris. Gauze swabs and cotton wool should be used with caution as can cause mechanical damage to new tissue and the shedding of fibres from gauze swabs/cotton wool delays healing.

# Choice of dressing

- A wound will require different management and treatment at various stages of healing. No dressing is suitable for all wounds; therefore frequent assessment of the wound is required. Considerations when choosing dressing products -
- Maintain a moist environment at the wound/dressing interface
- Be able to control (remove) excess exudates. A moist wound environment is good, a wet environment is not beneficial
- Not stick to the wound, shed fibres or cause trauma to the wound or surrounding tissue on removal

# Choice of dressing

- Protect the wound from the outside environment - bacterial barrier
- Good adhesion to skin
- Sterile
- Aid debridement if there is necrotic or sloughy tissue in the wound (caution with ischaemic lesions)
- Keep the wound close to normal body temperature
- Conformable to body parts and doesn't interfere with body function
- Be cost-effective
- Diabetes - choose dressings which allow frequent inspection
- Non-flammable and non-toxic

**ASEPSIS**

# Definitions

- Asepsis is the state of being free from disease-causing contaminants (such as bacteria, viruses, fungi, and parasites) or, preventing contact with microorganisms
- Aseptic technique is a general term involving practices that minimize the introduction of microorganisms to patients during patient care.
- There are two categories of asepsis; general asepsis which applies to patient care procedures outside the operating theatre and surgical asepsis relating to procedures/processes designed to prevent surgical site infection.

# Definitions

- [?] A clean technique is a modified aseptic technique and aims to avoid introducing micro-organisms to a susceptible site and also to prevent crossinfection to patients and staff' (Royal Marsden Manual).
- It differs from an aseptic technique, as the use of sterile equipment and the environment are not as crucial as would be required for asepsis.
- Infection is the 'invasion and multiplication of micro-organisms within tissue, which then results in destruction of the tissue' (ICNA 2003). It is part of a chain of events that can occur within the healthcare setting.



# Aims of an Aseptic Technique

- Aseptic techniques are used to reduce the risk of post-procedure infections and to minimize the exposure of health care providers to potentially infectious microorganisms.
- To prevent the introduction of potentially pathogenic micro-organisms into susceptible sites such as wounds or the bladder.
- To prevent the transfer of potentially pathogenic micro-organisms from one patient to another.
- To prevent staff from acquiring an infection from the patient.

# Basic principles of asepsis

- The use of sterile equipment for the procedure, which has been stored appropriately until use (e.g. dry, in an appropriate container, and within its expiry date).
- Avoidance of direct contact with the susceptible site.
- A 'non touch' technique – this involves the use of sterile gloves.
- Effective hand hygiene. This means using the twelve-step decontamination technique that ensures all surfaces of the hands are covered. (NHS 2008).

As an addition to this, all clinical staff that undertake ANTT must have sleeves that are short or rolled back, no wrist jewellery/watches, no false nails and no stoned rings.

# Basic principles of asepsis

- Effectively cleaned equipment such as dressing trolleys. If in patients' homes, best practice is for any furniture/equipment that can be considered as a working field to be cleaned and dried before use.
- Appropriate use of Personal Protective Equipment (PPE).
- Safe disposal of the used equipment at the end of the procedure.

# Aseptic Dressing Technique

Three principles of aseptic dressing technique

Maintain asepsis

Expose the wound for the minimum time

Employ an efficient procedure

# Indications for Aseptic Technique:

- Care of wounds healing by primary intention, e.g. surgical incisions and fresh breaks.
- Suturing of wounds.
- Insertion of urinary catheters.
- Insertion, re-siting or dressing intravenous cannulae or other intravascular devices, such as CVP lines, Hickman lines and Arterial lines.
- Insertion of gastrostomy and jejunostomy tubes.
- Insertion of tracheostomy tubes or chest drains.
- Vaginal examination using instruments (e.g. smear taking, high vaginal swabbing, colposcopy).
- Assisted delivery (e.g. forceps and ventouse).
- Biopsies.

# Indications for a clean technique

## When Could a Clean Technique Be Used?

- Dressing procedures for wounds that are healing by secondary intention such as chronic leg ulcers.
- Tracheostomy site dressings.
- Removing drains or sutures.
- Endotracheal suction.

# INFECTION CONTROL

## Clean Technique

- Clean technique refers to practises that reduce the number of infectious agents. These include:
- Personal hygiene, particularly hand washing to reduce the number of infectious agents on the skin.
- Use of barriers to reduce transmission of infectious agents
- Environmental cleaning
- Reprocessing of instruments and equipment between patient uses

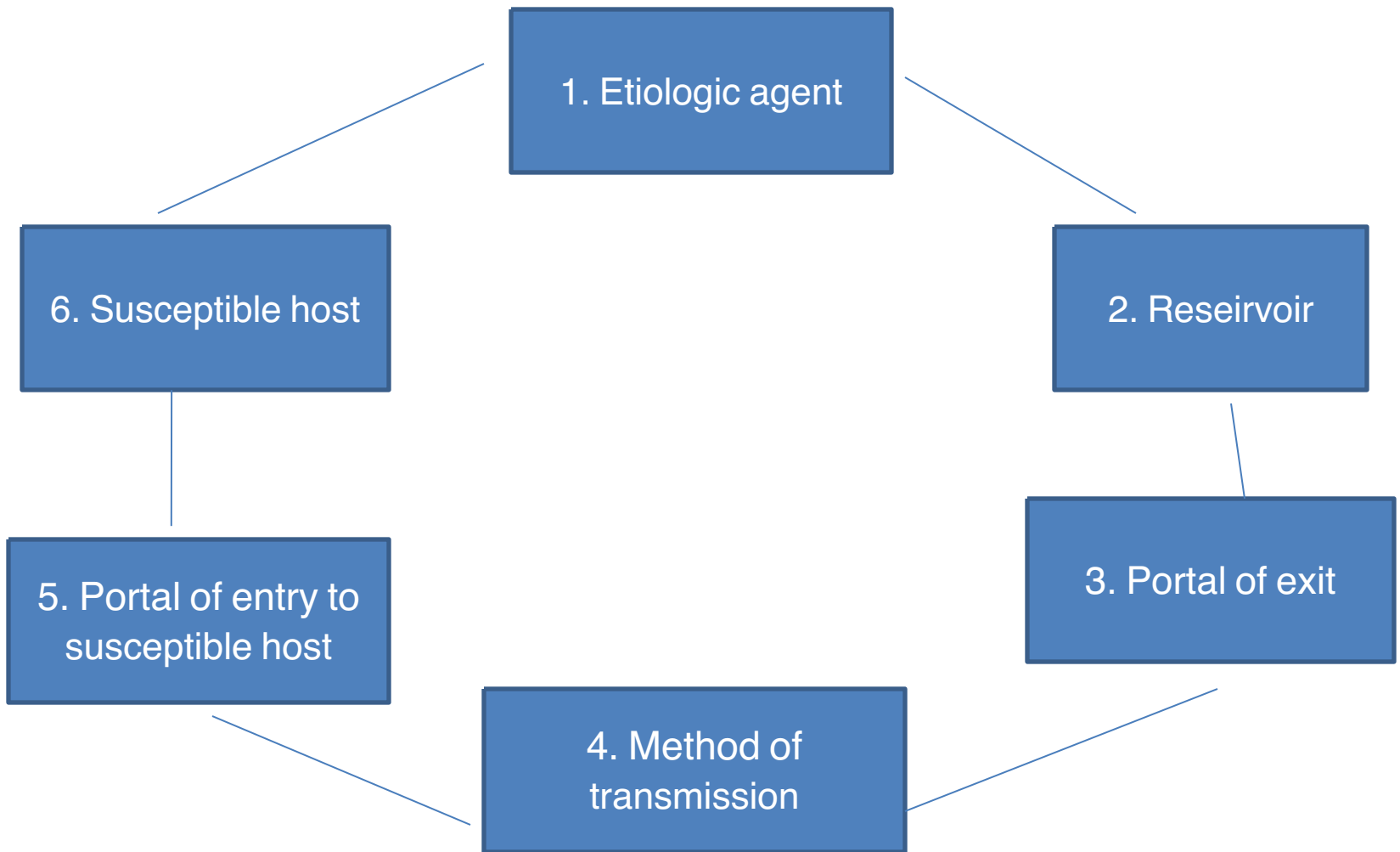
# Links in the Chain of Infection

- Infectious agents such as bacteria, viruses, fungi or parasites.
- A reservoir that supports the infectious agent, allowing it to survive and multiply.
- A portal of exit that allows the infectious agent to leave the reservoir.
- A mode of spread i.e. through direct or indirect contact or via airborne droplets.
- A portal of entry – often the same route as the portal of exit e.g. the skin, respiratory, gastrointestinal, circulatory, urinary or reproductive system.
- A susceptible host [?] i.e. a person at risk of infection. People are more vulnerable to infection when the balance of the body's defence system is upset, due to disease or devices that breach the body's defences.

Breaking any link in the chain will assist in preventing the spread of microorganisms (ICNA 2003).



# Chain of infection



# Techniques used to contribute to breaking the links of the chain

- A) Standard Precautions: hand hygiene; wearing personal, protective equipment; aseptic techniques; safe handling of sharps, waste and linen.
- B) Decontamination of patient care equipment
- C) Environmental cleanliness [?] ensuring that standards of hygiene and cleanliness adhere to local and national guidelines.

# means for spread of infection

- Direct contact – e.g. the hands of others.
- Indirect contact – objects such as instruments, clothes and equipment.
- Dust particles or droplet nuclei suspended in the atmosphere.

# HAND HYGIENE

- Hand hygiene is a means of achieving a reduction in, or removal of, visible soiling and transient or resident micro-organisms.
- Transient micro-organisms are picked up during daily activities and shed on skin scales. They can be effectively removed, or reduced to a low level by hand washing.
- Resident micro-organisms are permanently resident on the skin and can only be reduced to a low level for a short time.
- Hand washing is the single most important means of preventing the spread of health care acquired infections (HCAIs).

# Hand hygiene

- Clinical Hand Wash: a 30 seconds hand wash using liquid soap or equivalent and pat hands dry using a clean paper towel.
- Surgical Hand Wash: a three-minute surgical scrub using a surgical scrub solution, eg povidone-iodine, and pat hands dry using a clean paper towel.

# Examples of Procedures

Procedure	Hand Washing	Clean Gloves	Sterile Gloves	Mask/ Hat	Eye Wear	Gown
General Medical Examination	Routine hand wash before/after procedure	For contact with broken skin / rash/ mucous membrane			For splash risk	
Wound examination/ dressing	Routine hand wash before and after procedure	For contact with body substances	For direct contact with wound		For wound irrigation	For grossly infected wounds
Suctioning: ETT, Tracheostomy	Routine hand wash before and after procedure		Dominant hand (open suction system)	Mask	Yes	

# Tips for injection safety

Practices that can harm recipients and should be avoided

- Changing the needle but reusing the syringe.
- Loading the syringe with multiple doses and injecting multiple doses.
- Applying pressure to the bleeding sites using a finger.
- Leaving the needle in the vial to withdraw additional doses.
- Touching the needle.
- Reusing a syringe or needle.

# Tips for injection safety

Practices that can harm the health care worker and should be avoided

- Recapping, bending, breaking, and cutting needles.
- Placing needles on a surface or carrying them any distance prior to disposal.

Practices that can harm the community and should be avoided

- Leaving used syringes in areas with public access.
- Giving or selling used syringes to vendors who resell them.
- Providing used syringes to patients for personal reuse.



# Preparation of patient

- Explain the procedure, to gain consent and co-operation.
- Draw screens around the bed and ensure adequate light. Clear the bed area, close windows, turn off fans, etc.
- Adjust bedclothes to permit easy access to the wound but maintain warmth and dignity.
- Assess the wound dressing.
- Check patient comfort, e.g. position, convenience, need for toilet, etc.
- Administer analgesics as appropriate and allow time to take effect.

# Preparation of nurse

- Consult the care plan to determine the type of dressing required, frequency of change, etc.
- Make sure hair is tied back securely.
- Wash and dry hands thoroughly.
- An apron should be worn. Additional protective clothing may be necessary if indicated by the patient's condition

# Preparation of equipment

- Dressing trolley or other suitable surface
- Dressing pack, syringe (for irrigating the wound), cleansing solution and new dressing according to the care plan/local policy
- Alcohol hand-rub or hand washing facilities
- Clean the trolley or other appropriate surface according to local policy
- Gather the equipment, check the sterility and expiry date of all equipment and solutions. Place these on the bottom of the trolley

# Requirements

## Top shelf

- Sterile dressing pack containing:
- 2 pairs of dressing forceps
- 2 pairs of dissecting forceps
- 3 gallipots
- 10 cotton wool swabs
- 3 gauze swabs
- 1 kidney dish
- 1 hand towel/ 4 paper towels
- Sterile gloves
- Petri dish

# Requirements

## Bottom shelf

- Pair of scissors
- Adhesive tape/ bandage
- Antiseptic solutions as required
- Kidney dish or jug with disinfectants
- Topical drugs if required
- Extra sterile swabs and gauze
- Sterile gloves
- Receiver for used swabs
- Dressing mackintosh

# Procedure

- Take the trolley to the bed area.
- Adjust the bed to a safe working height to avoid back strain.

## Opening Dressing Pack

- Remove the dressing pack from its outer packaging, place it on the clean trolley/surface.
- Using your fingertips and touching the edges of the paper only, open the pack and lay it flat to create a sterile field.

Visit [www.cetl.org.uk/learningfor](http://www.cetl.org.uk/learningfor) tutorial with video of these steps.

# Aseptic Dressing Technique



Adjust any remaining bedclothes to expose the wound, then loosen the existing dressing but do not remove it



Disinfect hands. Ensure your hands are completely dry before proceeding.

# Aseptic Dressing Technique



Open the yellow waste bag and put your hand inside so that the bag acts as a glove. Use this to remove the soiled dressing



Inspect the dressing to determine the type and amount of exudate.



# Aseptic Dressing Technique



Turn the bag inside out so that the dressing is contained within it



Use the self-adhesive strip to attach the bag to the side of the trolley or other convenient place close to the wound

# Aseptic Dressing Technique



Taking care not to touch the outside of the gloves, put on the sterile gloves



Take your right hand glove in your left hand and place

# Aseptic Dressing Technique



more than half way up and over your right hand



Take the cuff of your left hand glove with your right hand and

# Aseptic Dressing Technique



put your left hand fingers inside the glove



Adjust the gloves over your hands

# Aseptic Dressing Technique



Use a gauze swab dipped in cleansing solution to clean around the wound to remove blood, etc.



If the wound itself needs cleaning, use a syringe primed with solution in one hand and a gauze swab on the skin below the wound in the other.

Making sure that neither the syringe nor gauze come into contact with the wound, allow the solution to flow into the wound, collecting the solution in the gauze swab held below the wound.

# Aseptic Dressing Technique



Use fresh gauze swabs to dry around the wound (not the wound itself)  
Use each swab once only and swabbing away from the wound



Peel off the backing paper and apply the new dressing.

# Aseptic Dressing Technique



Wrap all used disposable items in the sterile field and place in the waste bag



Remove gloves and discard into waste bag  
Wrap



# Aseptic Dressing Technique

When the dressing is secure, make the patient comfortable and assist the patient as necessary into a comfortable position. Readjust the bed to a safe height. Replace bed rails if necessary



Dispose of the waste bag in clinical waste



# Aseptic Dressing Technique



Remove apron and wash hands. Return any unused items to the stock cupboard and clean the trolley according to local policy



Document the care given and the condition of the wound.  
Report any changes or abnormalities.

# Dressing Changes Using Strict Aseptic Technique

The nurse shall:

- a. Observe the surgical wound dressing every shift and document status;
- b. Report any signs of infection or dehiscence to the physician immediately (redness, swelling, in duration, tenderness, separation of the incision, odor, etc.);
- c. Monitor each shift for changes in skin integrity;
- d. Ensure patient is turned every two (2) hours while in bed. Document turning, repositioning schedule per flow sheet or in nurses narrative notes;
- e. Ensure patient changes positions while in chair or wheelchair every hour;

# Stitches, Clips or Staple Removal

- Normally stitches, clips or staples are removed within approximately 10 days of the surgical procedure unless otherwise advised by the health professional.

# Staples



- More rapidly placed
- Less foreign body reaction
- Scalp, trunk, extremities
- Do not allow for meticulous closure

# Staples

- Staples can be applied more rapidly than sutures. They are associated with a lower rate of foreign body reaction and infections.
- Able to use in scalp, on trunk and extremities. Not over joints.
- Do not allow for meticulous closure

# Bandages

- Holds a dressing in place over a wound
- Creates pressure that controls bleeding
- Helps keep the edges of the wound closed
- Secures a splint to an injured part of the body
- Provides support for an injured part of the body

# Bandage is too tight if:

- The skin around the bandage becomes pale or bluish in color (cyanotic).
- There is a bluish tinge to the nearest fingernails or toenails.
- The victim complains of pain, usually only a few minutes after you apply the bandage.
- The skin beyond the bandage (distal) is cold.
- The skin beyond the bandage (distal) is tingling or numb.

# Bandage is too tight if:

- You cannot feel the pulse beyond the bandage (distal), or it is very weak.
- Capillary refill is absent or diminished in the fingernails or toenails beyond the bandage (when you press on the nail, the nailbed does not immediately turn pink again)
- The victim cannot move his or her fingers or toes.



# Bandages

- Triangular Bandages
  - Support fractures and dislocations
  - Apply splints
  - Form slings
  - Make improvised tourniquets
- Roller Bandages

# Terminology

- Occlusive- Waterproof and airtight
- Gauze pads- Commercially manufactured, individually wrapped sterile pads made of gauze
- Special pads- Large, thickly layered bulky pads used to control bleeding and stabilize impaled objects
- Bandage- Material used to hold a dressing in place
- Triangular bandage- Triangle-shaped piece of cloth used to apply splints and form slings

# Slings

1. Place one end of the base of an open triangular bandage over the shoulder of the uninjured side.
2. Allow the bandage to hang down in front of the chest so its apex will be behind the elbow of the injured arm.
3. Bend the arm at the elbow with the hand slightly elevated (four to five inches). When possible, the fingertips should be exposed so you can monitor for impaired circulation.

# Slings

4. Bring the forearm across the chest and over the bandage.
5. Carry the lower end of the bandage over the shoulder of the injured side, and tie a square knot at the uninjured side of the neck; make sure the knot is at the side of the neck.
6. Twist the apex of the bandage and tuck it in or pin it at the elbow.



1



2



3

# Ideal Wound Closure

- Allow for meticulous wound closure
- Easily and readily applied
- Painless
- low risk to provider
- Inexpensive
- Minimal scarring
- Low infection rate

# Sutures



- Non-absorbable sutures
  - Tinsel strength 60 days
  - Non-reactive
  - Outermost closure

# Sutures



- Absorbable sutures
  - Synthetic > natural
  - Synthetic increases wound tinsel strength
  - Deeper layers
  - Avoid in highly contaminated wounds
  - Avoid in adipose tissue
  - Synthetic & monofilament > natural & braided



# Sutures

- Absorbable sutures are usually used for closure of deeper structures deeper than the epidermis
- In general, synthetic sutures are less reactive and have greater tensile strength than sutures from natural sources, such as catgut. They increase the time during which the healing wound retains 50% of its tensile strength from less than 1 week to as long as two years.
- Chromic gut lasts for up to 2 weeks and is associated with tissue reactivity

# Sutures

- Deep sutures help relieve skin tension, decrease dead space and hematoma formation, and probably improve cosmetic outcome.
- Deep sutures should be avoided in highly contaminated wounds, where they increase the risk of infection.
- Sutures through adipose tissue do not hold tension, increase infection rates, and should be avoided

# Staples

- Advantages
  - Rapid application
  - Low tissue reactivity
- Disadvantages
  - Less meticulous closure
  - May interfere with some older generation imaging techniques (CT, MRI)

# Adhesive Tapes



- Less reactive than staples
- Use of tissue adhesive adjunct (benzoin)
- Poor outcome in areas of tension
- Seldom used for primary closure
- Use after suture removal

# Adhesive Tapes

- Surgical adhesive tapes are less reactive than staples, but they require the use of adhesive adjuncts that increase local induration and wound infection
- Tape alone cannot maintain wound integrity in areas subject to tension.
- They are seldom recommended for primary wound closure, but are often used after suture removal to decrease tension on the wound until they fall off.

# Adhesive Tapes

- Advantages
  - Least reactive
  - Lowest infection rate
  - Rapid application
  - Patient comfort
  - Low cost
  - No risk of needle stick
- Disadvantages
  - Frequently falls off
  - Lower tensile strength than sutures
  - Highest rate of dehiscence
  - Requires use of toxic adjuncts
  - Cannot be used in areas of hair
  - Cannot get wet

# Tissue Adhesives



- Dermabond, Ethicon
- Topical use only
- Outcome equal to 5-0 and 6-0 facial repairs
- Less pain and time
- Slough off in 7-10 days
- Act as own dressing
- No antibiotic ointment

# Tissue Adhesives

- Advantages

- Rapid application
- Patient comfort
- Resistant to bacterial growth
- No need for removal
- Low cost
- No risk of needle stick

- Disadvantages

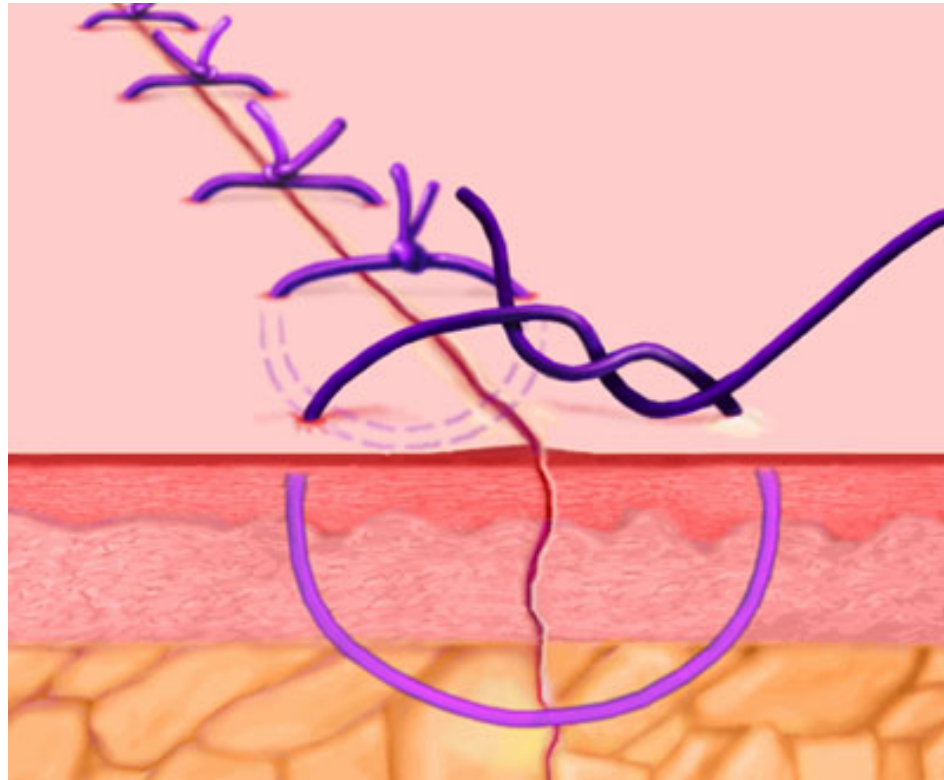
- Lower tensile strength than sutures
- Dehiscence over high tension areas (joints)
- Not useful on hands
- Cannot bathe or swim



# Post-procedural Care

- Dressing for 24-48 hours
- Topical antibiotics
- Start cleansing in 24 hours
- Suture/staple removal
  - Face 3-5 days
  - Non-tension areas 7-10 days
  - Tension areas 10-14 days

# The Interrupted Stitch



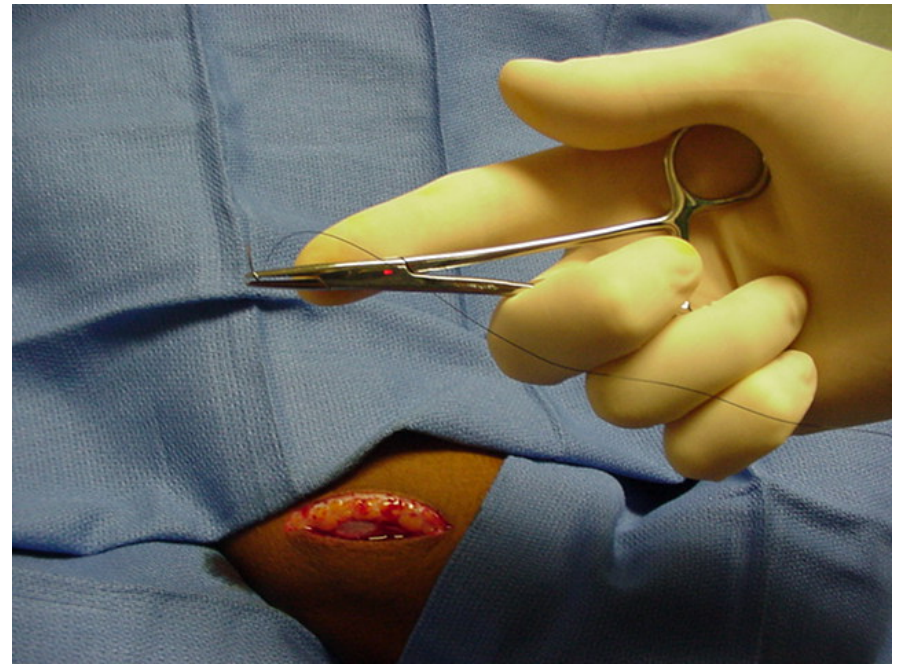
# The Interrupted Stitch

- Instrumentation
  - Hemostat
  - Scissors
  - Forceps with teeth
  - Plain forceps
  - Control syringe
  - Tub for saline
  - Gauze
  - Sterile towels
  - Syringe and splash shield



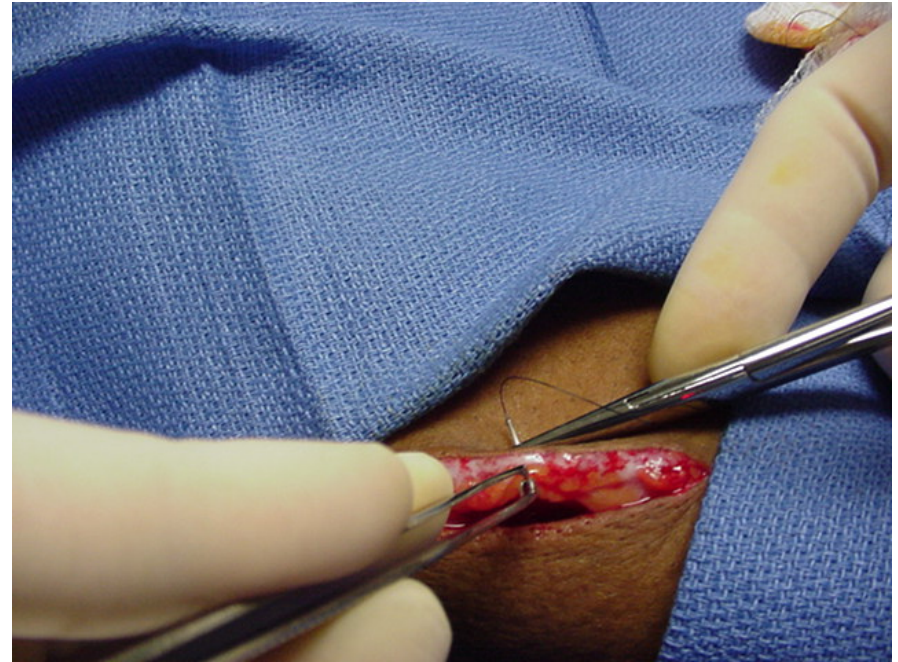
# The Interrupted Stitch

- Finger tip grip
- Palm grip
- Grip needle one-third of way from thread



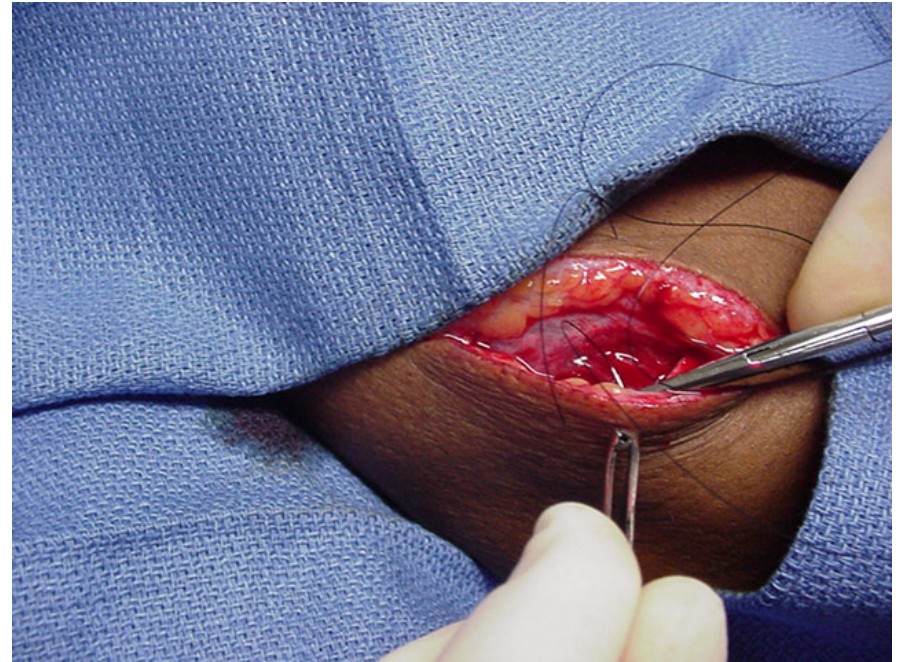
# The Interrupted Stitch

- Curl needle into dermis of 1<sup>st</sup> side



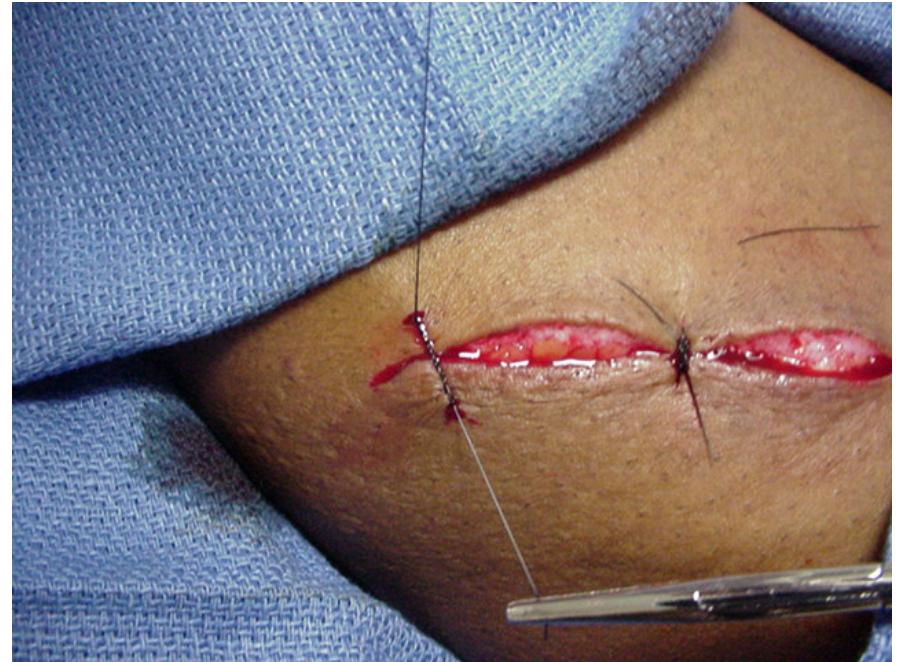
# The Interrupted Stitch

- Curl needle into dermis of 1<sup>st</sup> side
- Curl needle trough parallel opposite subcutaneous side



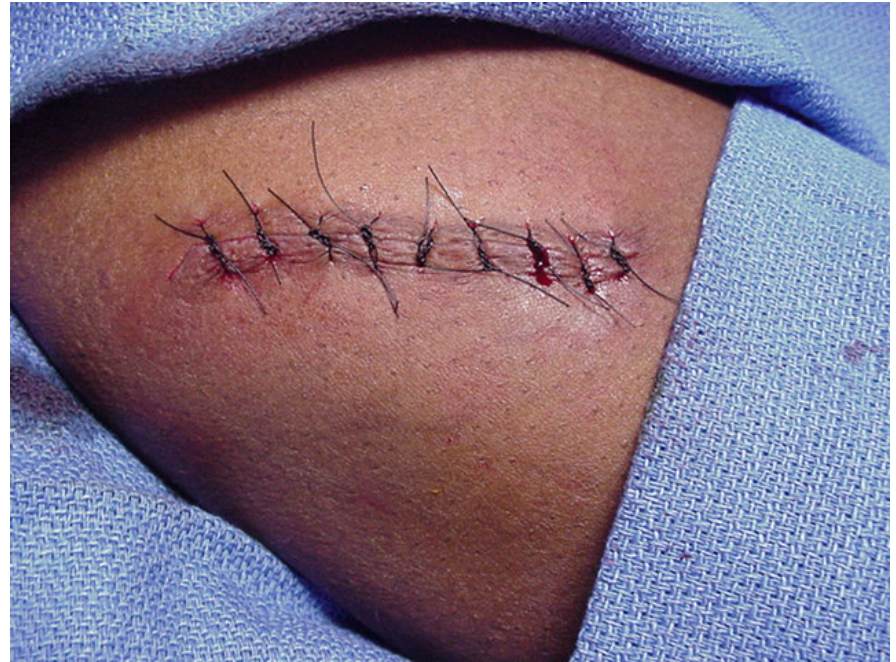
# The Interrupted Stitch

- Curl needle into dermis of 1<sup>st</sup> side
- Curl needle trough parallel opposite subcutaneous side
- Tie square knot with at least two braids



# The Interrupted Stitch

- Curl needle into dermis of 1<sup>st</sup> side
- Curl needle trough parallel opposite subcutaneous side
- Tie square knot with at least two braids
- Repeat three to four throws





# Hospital-Acquired Infections

- An infection acquired in hospital by a patient who was admitted for a reason other than that infection.
- An infection occurring in a patient in a hospital or other health care facility in whom the infection was not present or incubating at the time of admission.
- This includes infections acquired in the hospital but appearing after discharge, and also occupational infections among staff of the facility

# Types of Nosocomial Infections

The most common types of nosocomial infections are:-

- urinary infections - most common. 80% of these infections are associated with the use of an indwelling catheter.
- surgical site infection (0.5% to 15% ) - is indicated by the presence of purulent discharge around the wound or the insertion site of a drain, or by the presence of cellulites which is emanating from the wound. The extent of contamination during the surgery is the main risk factor. Contamination varies with the length of the procedure and the patient's general condition.
- nosocomial pneumonia

# Impact of nosocomial infections

- They are a significant burden to patients and public health.
- They are a major cause of death and increased morbidity in hospitalized patients.
- They may cause increased functional disability and emotional stress and may lead to conditions that reduce quality of life.
- Not only do they affect the general health of patients, but they are also a huge burden financially due to the increased stays that patients with nosocomial infections require.
- The increased length of stay varies from 3 days for gynecological procedures to 19.8 days for orthopedic procedures.
- Other costs include additional drugs, the need for isolation, and the use of additional studies.
- There are also indirect costs due to loss of work.

**SKIN INTEGRITY  
AND WOUND  
CARE**

# SKIN INTEGRITY

- The skin is the largest organ in the body.
- Intact skin refers to the presence of normal skin and skin layers uninterrupted by wounds.
- The appearance of the skin and skin integrity is influenced by internal factors e.g genetics, age, individual health and external factors e.g activity.

# PRESSURE ULCERS

- A pressure ulcer is any lesion caused by unrelieved pressure that results in damage to underlying tissue (U.S Public Health service's panel for the prediction and prevention of pressure ulcers in Adults {PPPPA}, 1992)
- Also known as decubitus ulcers, pressure sores or bed sores.

# Etiology of pressure ulcers

- Occur due to localized ischaemia.
- When blood cannot reach the tissues, the cells are deprived of oxygen and nutrients. The waste products of metabolism accumulate in the cells and the tissue consequently dies.
- Prolonged, unrelieved pressure also damages the small blood vessels.

# Risk factors

- Immobility – reduction in the amount and control of movement a person has e.g due to paralysis, weakness, pain
- Inadequate nutrition causes weight loss, muscle atrophy and loss of subcutaneous tissue
- Faecal and urinary incontinence – moisture promotes skin maceration
- Decreased mental status – e.g unconscious or heavily sedated



# Risk factors

- Diminished sensation – paralysis, stroke
- Excessive body heat – elevated body temperature increases the metabolic rate thus increasing the cells' need for oxygen
- Advanced age – brings several changes in the skin
- Chronic medical conditions e.g DM
- Other factors – poor lifting techniques, incorrect positioning, repeated injections on the same site, hard support surfaces, incorrect application of pressure – relieving devices

# Nursing management

## Diagnosis

- Risk for impaired skin integrity
- Impaired skin integrity
- Impaired tissue integrity
- Risk for infection
- Pain related to nerve involvement within the tissue impairment or as a consequence of procedures used to treat the wound.

# Nursing management

## Implementing

- Support wound healing
- Nutrition and fluids
- Preventing infection
- Positioning
- Preventing pressure ulcers
- Providing nutrition
- Maintaining skin hygiene
- Avoiding skin trauma
- Providing supportive devices
- Treating pressure ulcers
- The red, yellow, black (RYB) colour code

# HEALTH CARE DELIVERY SYSTEMS

# DEFINITION

- A health care system is the totality of services offered by all health disciplines.
- A health care system is the organization of people, institutions, and resources to deliver health care services to meet the health needs of target populations.

# TYPES OF HEALTH CARE SERVICES

- Types of health care services are described as:
  - - Health promotion and illness prevention (primary prevention)
    - Diagnosis and treatment (secondary prevention)
    - Rehabilitation and health restoration (tertiary prevention)

# OVERVIEW OF HEALTH CARE SYSTEM IN KENYA

- The health sector comprises the public system, with major players including the MOH and parastatal organizations, and the private sector, which includes private for-profit, NGO, and FBO facilities.
- The public health system consists of the following levels of health facilities: national referral hospitals, provincial general hospitals, district hospitals, health centres, and dispensaries.

# Structure of service delivery

- The Provincial Health Management Team (PHMT) provides supervision and management support to the districts and sub-districts within the province.
- Public health services are managed by the District Health Management Team (DHMT) and Public Health Unit of the district hospitals.
- The DHMT and District Health Management Board (DHMB) provide management and supervision support to rural health facilities (sub-district hospitals, health centres, and dispensaries).



# Levels of health care delivery in the Kenya Essential Package for Health (KEPH)

- 6: Tertiary hospitals
- 5: Secondary hospitals
- 4: Primary hospitals
- 3: Health centres, maternities, nursing homes
- 2: Dispensaries/clinics
- 1: Community:  
Villages/Households/Families/Individuals

# COHORTS

KEPH distinguishes six distinct life cycle stages

- Pregnancy, delivery and the newborn child (up to 2 weeks of age)
- Early childhood (3 weeks to 5 years)
- Late childhood (6 to 12 years)
- Adolescence (13 to 24 years)
- Adulthood (25 to 59 years)
- Elderly (60 years and over)

# FACTORS AFFECTING HEALTH CARE DELIVERY

- Increasing number of the elderly – long term illnesses are prevalent in this group and frequently require special housing, treatment, financial support and social networks.
- Advances in technology – improved diagnostic procedures and sophisticated equipment permit early recognition of diseases that might otherwise have remained undetected.
- Economics – the health care delivery system is very much affected by a country's total economic status.
- Women's health – the women's movement has been instrumental in changing health care practices e.g. more relaxed birthing centres.

# FACTORS AFFECTING HEALTH CARE DELIVERY

- Uneven distribution of services – in some areas, there are insufficient health care professionals and services available to meet the health care needs of individuals.
- Access to health care – lack of access due to low income, unemployment or poverty.
- The homeless and the poor – lead to limited access to health care services.
- Demographic changes – single-parent families, cultural and ethnic diversity.

# NURSING CARE DELIVERY SYSTEMS

- A nursing care delivery system defines how work is organized, how nursing staff are deployed, and who does what in providing nursing care.
- Delivery systems identify who has the accountability for nursing care and clinical outcomes.
- Delivery systems provide the organization, rules and structure that define responsibility and accountability (who does what).

# Organization of care delivery

is determined by a variety of factors such as:-

- economic issues
- leadership beliefs
- the ability to recruit and retain staff.

Ideally, evidence of the effect of care models on quality and patient safety would also be a major factor in decision-making.

# Organization of care delivery

- One important function of the professional nurse at the first-line management position of nursing service department is organizing the activities of the staff into a workable pattern to meet patient needs.

# Principles of personnel assignment

Made by the head nurse or nurse in charge for each individual nurse.

Based on:

- a- Nursing needs of each patient and approximate time required to care for him.
- b- The capabilities, skill level, previous experience and the interest of the staff members.
- c- Job description.



# Principles of personnel assignment

- Planned weekly, and revised daily if necessary to assure continuity of care.
- Take into account all the direct, indirect and unit activities
- Consider the geographical location of the unit and the assigned duties to save nurse's time and effort.
- Must be balanced among nursing staff.
- Never to assign the same task to more than one nurse.

# Process of organizing patient care

## 1. Planning:

Is a process of developing a course of action for meeting the needs of patient. In planning, the head nurse decides what should be done, when, how, where, by whom and to whom.

## 2. Assigning:

Assignment of patient and nursing activities are written in the assignment sheet by the head nurse/nurse in charge, based on the principles of assignment.

## 3. Leading:

Includes issuing instructions, motivation, and coordination of activities, by making rounds, checking performance and conducting conferences.

## 4. Evaluating:

By reviewing nursing performance and patient progress to be compared by the assignment and nursing care plan.

# Process of organizing patient care

Examples of organizational structure:

- Technology level
- Nurse-to-patient ratio
- Use of temporary staff members
- Workload
- Nursing education/experience
- Support for professional development
- Continuing education

# Process of organizing patient care

## Direct Patient Care Functions:

- Assessment
- Monitoring
- Prioritizing goals
- Care coordination
- Therapeutic interventions
- Evaluation
- Communication
- Patient education

# Process of organizing patient care

## Indirect Patient Care Functions:

- Clinical practice
- Education/research
- Leadership
- Operations
- Personnel management
- Quality improvement
- System coordination

# Methods of patient care delivery

## I- The traditional methods

- 1. Case method.
- 2. Functional method.
- 3. Team method.
- 4. Modular nursing.
- 5. Primary nursing method.

## II The advanced method

- Case management

# CASE METHOD

It is the oldest patient care delivery method. In this method one professional nurse assumes total responsibility of providing complete care for one or more patients (1-6) while she is on duty. This method is used frequently in intensive care units and in teaching nursing students.

# Advantages of case method

- High degree of autonomy (independence)
- Lines of responsibility and accountability are clear
- Patient receives holistic, unfragmented care



# Disadvantages of case method

- Each RN may have a different approach to care
- Not cost-effective
- Lack of RN availability

# FUNCTIONAL METHOD

- Emerged during 1950s, due to shortage of nurses. This method focuses on getting the greatest amount of tasks in the least time. In this method, the nursing care is divided into tasks and each staff member is assigned to perform one or two tasks for all patients in the unit according to the level of skill required for performance

# Advantages of functional methods

- Care is provided economically and efficiently
- Minimum number of RNs required, so it is efficient when there is a shortage in the staff or there is limited number of professional nurses
- Tasks are completed quickly
- Useful in emergency situations.

# Disadvantages of functional methods

- Care may be fragmented
- Patient may be confused with many care providers
- Caregivers feel unchallenged
- Lack of communication among the different persons who care for the patient.
- Neglecting the humanity of the patient and the individual needs of the patient will be lost in an effort to get the work done.

# TEAM METHOD

- The concept of team nursing was introduced in the early 1950s. It is a method of nursing assignment that binds professional, technical and nurse aides into small teams. This method allows for efficient utilization of technical and/or nurses aide through the direct supervision, guidance, and teaching of professional nurses.

# TEAM METHOD

## Advantages:

- High-quality, comprehensive care with a high proportion of ancillary staff
- Team members participate in decision making and contribute their own expertise
- Feeling of participation and belonging are facilitated with team members.
- Work load can be balanced and shared.
- Division of labour allows members the opportunity to develop leadership skills.
- Every team member has the opportunity to learn from and teach colleagues
- There is a variety in the daily assignment.

# TEAM METHOD

## Advantages

- Interest in client's wellbeing and care is shared by several people, reliability of decisions is increased.
- Nursing care hours are usually cost effective.
- The client is able to identify personnel who are responsible for his care.
- Continuity of care is facilitated, especially if teams are constant.
- Barriers between professional and non-professional workers can be minimized, the group efforts prevail.
- Everyone has the opportunity to contribute to the care plan.

# TEAM METHOD

## Disadvantages:

- Continuity suffers if daily team assignments vary
- Team leader must have good leadership skills to effectively direct the team and create a “team spirit”.
- Insufficient time for planning and communication
- Establishing a team concept takes time, effort and constancy of personnel. Merely assigning people to a group does not make them a ‘group’ or ‘team’.
- Unstable staffing pattern make team nursing difficult.
- All personnel must be client centred.
- There is less individual responsibility and independence regarding nursing functions
- Insufficient time for care planning and communication may lead to unclear goals. Therefore responsibilities and care may become fragmented



# TEAM METHOD

- For team nursing to succeed, the team leader must have strong clinical skills, good communication skills, delegation ability, decision-making ability, and the ability to create a cooperative working environment.

# TEAM METHOD

## Channels of communication in team nursing

- Reports
- Work or assignment conference
- Patient care conference
- Written nursing care plan

# MODULAR NURSING:

- Modular nursing assignment is used when the nursing staff includes technical and nurse aides, as well as professional nurses.
- Although two or three persons are assigned to each module, the greatest responsibility for the care of assigned patients falls on the professional nurse. The professional nurse is also responsible for guiding and teaching non-professional nurse.

# MODULAR NURSING:

## Advantages

- Continuity of care is improved
- RN more involved in planning and coordinating care
- Geographic closeness and efficient communication.

## Disadvantages

- Increased costs to stock each module
- Long corridors not conducive to modular nursing.

# MODULAR NURSING:

- Modular nursing is similar to team nursing because professional and non-professional employees cooperate in caring for patients under the leadership of a professional nurse.
- Module nursing is similar to primary nursing because each pair or trio of nursing personnel are responsible for the care of the patients in their caseload from admission to discharge, following discharge and during subsequent admissions to the agency.

# PRIMARY NURSING METHOD

This method is the best in an agency with an all-professional nurse staff.

- It is: A comprehensive, continuous and coordinated nursing process for meeting the total needs of each patient.

Basic concepts in primary nursing:

- Patient assessment by a primary nurse, who plans the care to be given by secondary or associate nurse when the primary nurse is off duty. The 24 hours responsibility for care is put into practice through the primary nurse's written directive on a preplanned communication assignment.

# PRIMARY NURSING METHOD

Functions of primary nurse include:

- 1- Conducting an admission (initial) assessment.
- 2- Developing, planning, implementing, and revising the nursing care plan.
- 3- Directing care in her absence.
- 4- Collaborating with physicians and families.
- 5- Making referrals.
- 6- Teaching health concepts.
- 7- Making discharge plans.

# PRIMARY NURSING METHOD

## Advantages

- High-quality, holistic patient care
- Establish rapport with patient
- RN feels challenged and rewarded.

## Disadvantages

- Primary nurse must be able to practice with a high degree of responsibility and autonomy
- RN must accept 24-hour responsibility
- More RNs needed; not cost-effective



# CASE MANAGEMENT

- Case management is a process of monitoring an individual patient's health care by the case manager, for the purpose of maximizing positive outcomes and containing costs.
- The case manager has graduate-level preparation or is at an advanced level of nursing practice. The case manager role requires not only advanced nursing skills but also advanced managerial and communication skills.

# CASE MANAGEMENT

Case manager's approaches:-

- 1- Case managers employed by the hospitals follow a patient from the time admission is planned through the time of discharge. This case manager might plan the admitting process to ensure that all preadmission work-ups are completed and that the patient is being admitted at the appropriate time to facilitate follow-up through on problems.

# CASE MANAGEMENT

2- Case managers in private practice may focus on a particular group of client. For example, the geriatric case manager focuses on managing care for the older client. The private case manager is paid by the client or family usually based on the hours of service provided. The case manager may help the family to identify all the options for care and treatment, ask questions to obtain greater understanding of the overall problem, and work with the family in the decision-making process.

# CASE MANAGEMENT

Case management tools:

- The case manager uses two tools , Case Manager Plan ( CMP) , and Critical Path Diagnosis ( CPD) to , design , map , track , monitor , and adjust the patient's course through the care-treatment process.

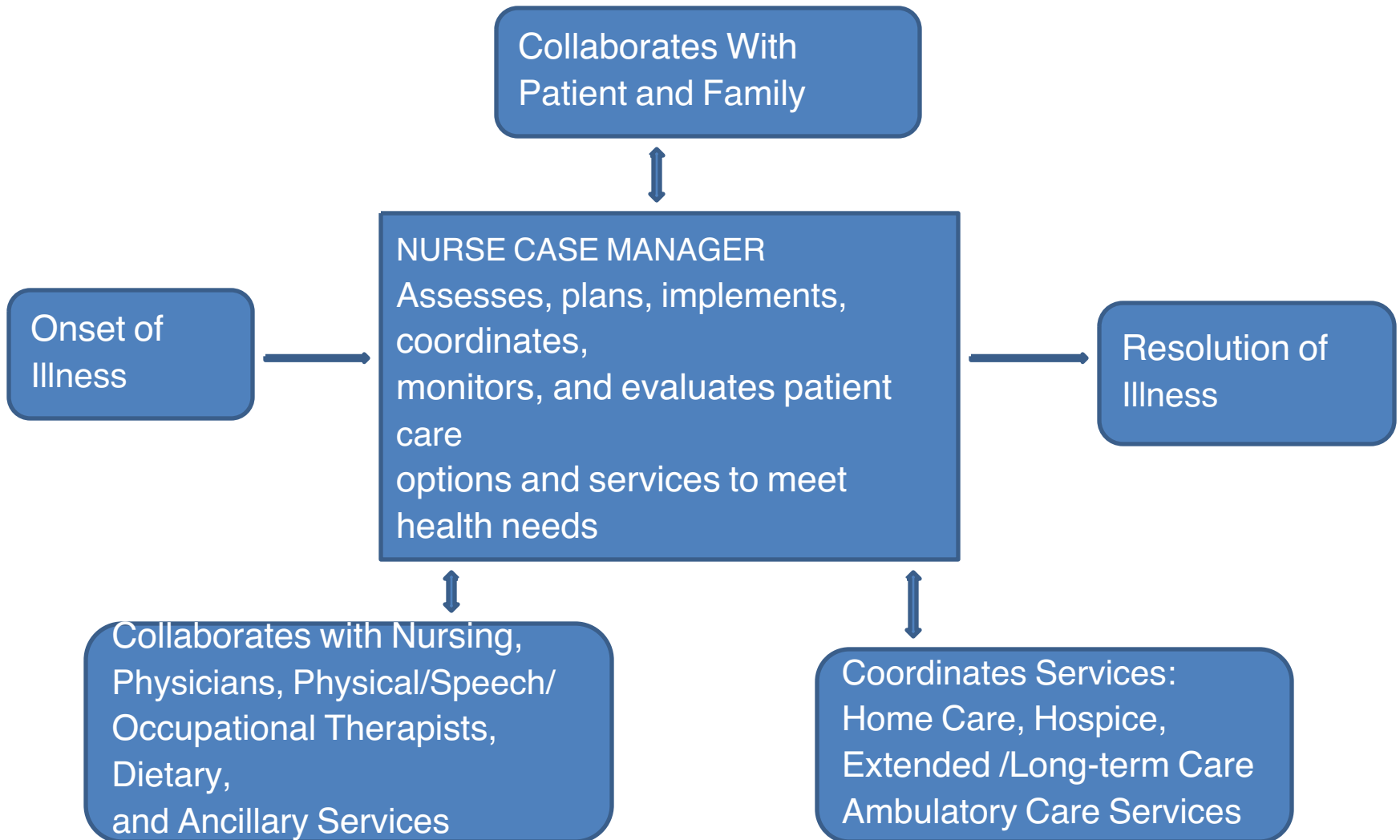
1-Case Manager Plan (C M P):

- Is a multicolumn plan with accompanying time line that includes medical and nursing diagnosis , desired care outcomes, intermediate daily goals to support each outcome, and the daily activities required of nurse, physicians, and other care givers to achieve intermediate goal.

# CASE MANAGEMENT

- 2- Critical Path Diagnosis (C P D) :
- Is an abbreviated , one – page version of the required physician and nurse action listed in the C M P , together with the exact data on which all key events must occur to achieve the desired outcome by the target date.
- The case manager evaluates the patient's progress toward care and treatment goal daily by comparing signs, symptoms, and assessment data against information in the C M P and C D P then tracking variances from the expected course of progress.

# Nursing Case Management Model



# CASE MANAGEMENT

Advantages:

a) For the patient:

- Establishing and achieving a set of “expected” or standardized patient care outcomes for each patient.
- Facilitating early patient discharge or discharge within an appropriate length of stay.
- Using the fewest possible appropriate health care resources to meet expected patient care outcomes.
- Facilitating the continuity of patient care through collaborative practice of diverse health professionals.

b) For the nurse:

- Enhancing nurse’s professional development and job satisfaction.
- Facilitating the transfer of knowledge of expert clinical staff of novice staff.

# CASE MANAGEMENT

## Disadvantages

- The risk with case management models is that integration into unit care delivery may not occur.
- Care goals for the patient, as determined by the case manager, may not be communicated to the bedside nurse.
- The case manager becomes the care coordinator and decision maker for care planning, and the unit nursing staff may become more focused on technical tasks.



# Choosing a Nursing Care Delivery Model:

In order to determine the most proper model - for a current situation, the following questions are to be answered:

- What staff mix is required?
- Who should make work assignments?
- Work assigned by task? By patient?
- How will communication be handled?
- Who will make decisions?
- Who will be responsible and accountable?
- Fit with unit/facility/organization management?

# COMMUNITY [?] BASED HEALTH CARE

- Community [?] based health care is a PHC system that provides health – related services within the context of the people’s daily lives in places where they spend most of their times e.g homes, work, schools.
- It is the design, delivery and evaluation of health care services developed in partnerships with communities.

# COMMUNITY BASED HEALTH CARE

- A community – based health care system needs to:-
  - provide easy access to the system
  - be flexible in responding to the care needs that individuals and family identify
  - promote care between and among health care agencies through improved communication mechanisms
  - provide appropriate support for family care givers
  - be affordable

# COMMUNITY [?] BASED HEALTH CARE

The ideal CBHC system according to deTornyay (1992) would accomplish these goals:-

- be more oriented to health and emphasize health promotion and disease prevention
- focus on individual responsibility for health practices and behavior
- be population based and focus more attention on risk factors in the physical and social environment
- use electronic information systems

# COMMUNITY BASED HEALTH CARE

- have a stronger focus on consumers who would have increased information and be informed participants in decision about their health care.
- Base decisions on outcomes
- Provide care more efficiently by means of integrated or coordinated teams of providers.
- Balance technology with non-technical interventions and weigh the benefits against its effects on human values and interpersonal processes

# COMMUNITY BASED FRAMEWORK

## INTEGRATED HEALTH CARE SYSTEM

Is one that makes all levels of care available in an integrated form – primary, secondary and tertiary care.

## GOALS

- To facilitate care across settings
- Recovery
- Positive health outcomes
- Long-term benefits of modifying harmful lifestyles through health promotion and disease prevention.

# COMMUNITY BASED NURSING

- Is nursing care directed toward a specific group or population within the community and may be provided for individuals and groups. The level of care can be primary, secondary or tertiary.

# COMMUNITY BASED NURSING

- Nurses who work in community – based settings e.g public health nurses need to be prepared to make home visits.
- Home visits can provide information that is not obtainable in other ways.



# CONTINUITY OF CARE

- Is the coordination of health care services by health care providers for clients moving from one health care setting to another and between and among health care professionals.
- Continuity ensures uninterrupted and consistent services for the client from one level of care to another.
- It maintains client focused individualized care and helps optimize the client's health status.

# DISCHARGE PLANNING

- Is the process of preparing a client to leave one level of care for another within or outside the current health care agency.
- Discharge planning needs to begin when a client is admitted to the agency.
- Effective discharge planning involves:-
  - a) Ongoing assessment to obtain comprehensive information about the client's on-going needs.
  - b) Statements of nursing diagnosis
  - c) Plans to ensure the client's and caregivers' needs are met.

# WARD LAYOUT

# Ward layout

- A well organised ward has everything in the right place, which saves time.

## Single sex ward areas

All wards have designated ward areas or bays and washing facilities for male and female patients.

## Exceptions:

- Obstetrics and gynaecology, which are women only.
- In the specialist wards such as the Intensive Care Unit, male and female patients may be nursed in the same area.

# Ward layout

- Bathrooms and toilets  
All wards have separate facilities with permanent signs on toilets and bathrooms for either male or female patients.
- Side rooms  
These are rooms which may be used to isolate or nurse very sick patients.
- Isolation ward  
This is a ward for patients with contagious diseases
- Private ward  
May be for patients who require special privacy.

# Types of wards

- Medical
- Paediatric
- Surgical
- Obstetric / gynaecology
- Orthopaedic
- Specialized units

# Example of KNH wards

## Clinical Departments

- Medicine
- Obstetrics & Gynaecology
- Dentistry
- Laboratory
- Medicine
- Dermatology
- Paediatrics
- Pharmacy
- Surgery
- Respiratory & infectious Diseases
- ophthalmology
- Radiotherapy/  
Radiology
- Accident and  
Emergency
- Anaesthesia
- Quality Assurance

# Example of KNH wards

## Professional support Departments

- Medical Records
- Occupational Therapy
- Public Health
- Laundry
- Medical Social work
- Physiotherapy
- Nutrition
- Catering



# Example of KNH wards

## Administrative Departments:

- Administration
- Personnel
- Finance
- Supplies & procurement

# Example of KNH wards

- Public relation
- Legal
- Planning
- Maintenance & Transport
- Security

# Example of KNH wards

## Specialised Units

- Renal Unit
- The Heart Unit
- Interventional Cardiology
- Intensive Care Unit and HDU





# Maternity ward



# THE COMMUNICATION PROCESS

# COMMUNICATION

- Effective communication is an essential element of an optimal nurse-client relationship and of the leader manager role.
- Establishing a client rapport facilitates a vital role – the process of teaching, a structured form of communication designed to produce learning.



# COMMUNICATION

- Is a critical skill in nursing.
- It is the process by which humans meet their survival needs, build relationships and experience in joy.
- In nursing, it is a dynamic process used to gather assessment data, to teach and to persuade and to express caring and comfort.
- It is an integral part of the helping relationships.

# CARING

- Care is the essence of nursing and the dominant, distinctive and unifying feature of nursing (Madeleine Leininger, 1984).
- Caring is intentional action that conveys physical and emotional security and genuine connectedness with another person or group of people (Miller, 1995).
- Caring includes assistive, supportive and facilitative acts toward or for another individual or group with evident or anticipated needs.

# CARING BEHAVIOURS

- Comfort,
- Compassion,
- Concern,
- Coping Behaviour,
- Empathy,
- Enabling,
- Facilitating,
- Interest,
- Involvement,
- Health Consultative Acts,
- Health Instruction Acts,
- Helping Behaviours,

# CARING BEHAVIOURS

- Health Maintenance Acts,
- Love,
- Nurturance,
- Presence,
- Protective Behaviours,
- Restorative Behaviours,
- Sharing,
- Stimulating Behaviours,
- Stress Alleviation,
- Support,
- Tenderness,
- Touching
- Trust.

# COMFORTING

- Is a complex process that includes discrete, transitory actions such as touching or broad, longer lasting interventions such as listening.
- Comforting has been a unique characteristic to nursing since the days of Florence Nightingale, “Making the patient as comfortable as possible”.

# COMFORT NEEDS

Kolcaba (1991, 1995) identifies comfort needs within four contexts:

- Physical comfort needs – relate to bodily sensations and physiologic problems associated with medical diagnosis.
- Psychospiritual comfort needs – relate to internal awareness of self including esteem, concept, sexuality and meaning of one's life.
- Social comfort – relate to interpersonal, family and social relationships.
- Environmental comfort needs – relate to the external background of human experience and can include light, noise, temperature and natural versus synthetic elements.

# COMMUNICATION STRATEGIES

- Empathy – an expression of understanding of “how is it for the client” who is distressed, suffering or sad e.g “I understand how hard it is for you”
- Positive talk – by keeping the client informed, encouraged or coached e.g “you are doing good, this is a very difficult procedure”
- Therapeutic touch – nurse maintains physical contact with the client and reassures and comforts the client e.g “how about if I hold your hand during this procedure”.

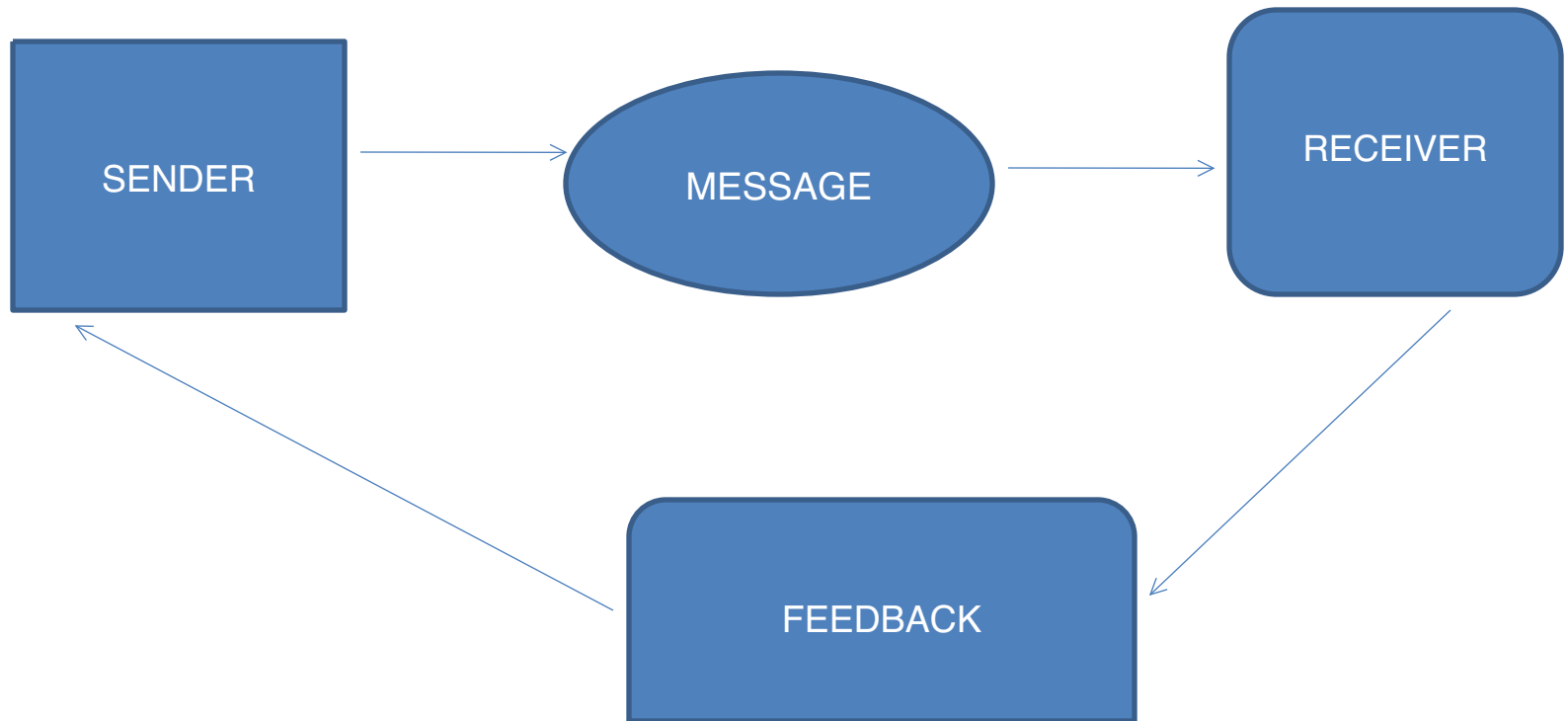
# COMMUNICATION STRATEGIES

- Competent physical and technical skills – the nurse's level of professionalism and efficiency decreases the anxiety and promotes comfort e.g “we do this procedure frequently”.
- Vigilance – the client trusts that the nurse is involved in his/ her care e.g “am back to check on how you are doing”.



# COMMUNICATION PROCESS

SENDER – MESSAGE – RECEIVER – RESPONSE/  
FEEDBACK



# Components of communication process

- Input: The sender has an intention to communicate with another person. This intention makes up the content of the message.
- Sender: The sender encodes the message. Thus he gives expression to the content.
- Channel: The message is sent via a channel, which can be made of a variety of materials.
- Noise. The channel is subjected to various sources of noise. e.g telephone communication, where numerous secondary sounds are audible.

# Components of communication process

- Receiver. The receiver decodes the incoming message, or expression. He "translates" it and thus receives the message.
- Output. This is the content decoded by the receiver.
- Code. In the process, the relevance of a code becomes obvious: The codes of the sender and receiver must have at least a certain set in common in order to make communication work.

# MODES OF COMMUNICATION

- VERBAL COMMUNICATION
- NON-VERBAL COMMUNICATION – personal appearance, posture and gait, facial expression, gestures

# THERAPEUTIC COMMUNICATION

- Promotes understanding and can help establish a constructive relationship between the nurse and the client.
- The relationship is client and goal directed.
- It is important to understand how the client views and feels about the situation before responding to it.

# THERAPEUTIC COMMUNICATION

## ATTENTIVE LISTENING

- Is listening actively using all the senses as opposed to listening passively with the ear.
- Involves paying attention to verbal and non-verbal communication.

## PHYSICAL ATTENDING

- Face the other person squarely
- Adopt an open posture
- Lean toward the person
- Maintain good eye contact
- Try to be relatively relaxed

# THERAPEUTIC COMMUNICATION

## TECHNIQUES

- Using silence
- Providing general leads e.g “can you tell me how it is to you”
- Being specific and tentative e.g “are you in pain”
- Using open ended questions e.g “what is your opinion”
- Using touch
- Restating or paraphrasing
- Seeking clarification

# THERAPEUTIC COMMUNICATION

- Offering self
- Giving information
- Acknowledging
- Reflecting – directing ideas, feelings, questions back to the client to enable them to explore their own ideas and feelings about a situation.
- Summarizing and planning – stating the main points of a discussion to clarify the points discussed.



# NURSE [?] CLIENT RELATIONSHIP

- Referred to as interpersonal/ therapeutic/ helping relationships.
- Helping is a growth facilitating process that strives to achieve two basic goals:-
  1. Helps clients manage their problems in living more effectively and develop u used or underused opportunities more fully.
  2. Helps clients become better at helping themselves in their everyday lives.

# HELPING RELATIONSHIP

May be influenced by:-

- Personal and professional characteristics of the nurse and client
- Age
- Sex
- Appearance
- Diagnosis
- Education
- Values
- Ethnic and cultural background
- Personality
- Expectations
- Setting

# HELPING RELATIONSHIP

## CHARACTERISTICS

- Is an intellectual and emotional bond between the nurse and client and is focused on the client
- Respects the client as an individual including:-
  - maximizing the client's abilities to participate in decision making
  - Considering ethnic and cultural aspects
  - Considering family relationships and values
- Respects client confidentiality
- Focuses on the client's well-being
- Is based on mutual trust, respect and acceptance

# HELPING RELATIONSHIP

## PHASES OF THE HELPING RELATIONSHIP

- Pre-interaction phase – similar to the planning stage before an interview. The nurse has information about the client before the first face-to-face meeting.
- Introductory phase – also referred to as the orientation/ prehelping phase. It sets the tone for the rest of the relationship. Three stages of this phase are:-
  - Opening the relationship
  - Clarifying the problem
  - Structuring and formulating the contract

# HELPING RELATIONSHIP

- Working phase – the nurse and client begin to view each other as unique individuals.

Has two stages:-

1. Exploring and understanding thoughts and feelings. The skills required in this phase are:-

Empathetic listening and responding

Respect

Genuineness

Concreteness – be specific

Confrontation – nurse points out discrepancies between thoughts, feelings and actions that inhibit the client's self understanding or exploration of specific areas.

2. Facilitating and taking action

# HELPING RELATIONSHIP

- Termination phase – if the previous phases have evolved effectively, the client generally has a positive outlook and feels able to handle problems independently.
- Summarizing or reviewing the process can produce a sense of accomplishment
- Both nurse and client should express their feelings of termination openly.

# DEVELOPING A HELPING RELATIONSHIP

- Listen actively
- Help to identify what the person is feeling
- Empathize
- Be honest
- Be genuine and credible
- Use your ingenuity (creativity)
- Be aware of cultural differences that may affect meaning and understanding
- Maintain client confidentiality
- Know your role and limitations

# COMMUNICATION PROCESS

## FACTORS INFLUENCING COMMUNICATION PROCESS

- Development
- Gender
- Values and perceptions
- Personal space (distance people prefer in interaction with others)
- Roles and relationships
- Environment
- Interpersonal attitudes



# BARRIERS TO COMMUNICATION

- Stereo-typing e.g “women are complainers”
- Agreeing and disagreeing
- Being defensive e.g “you are not the only client”
- Challenging e.g “you think I gave you the wrong pill”
- Probing
- Rejecting e.g “I cant talk now, am going for tea”
- Changing topics and subjects
- Passing judgments – approving or disapproving responses e.g “that’s not good enough”

# COMMUNICATION AND THE NURSING PROCESS

- Communication is an integral part of the nursing process.
- Communication is important in caring for clients who have communication problems.
- Communication skills are even more important when the client has sensory, language or cognitive deficits.

# COMMUNICATION AND THE NURSING PROCESS

## ASSESSING

- To assess the client's communication, the nurse determines communication impairments or barriers and communication style.
- Culture may influence when and how a client speaks
- Language varies according to age and development

# COMMUNICATION AND THE NURSING PROCESS

## DIAGNOSING

- Impaired verbal communication may be used as a nursing diagnosis when “ an individual experiences a decreased, delayed, or absent ability to receive, process, transmit and use a system of symbols” (Wilkinson, 2000)
- Impaired verbal communication may not be useful when an individual’s communication problems are caused by psychiatric illness or coping problem.

# COMMUNICATION AND THE NURSING PROCESS

## PLANNING

- When a nursing diagnosis related to impaired verbal communication has been made, the nurse and client determine outcomes and begin planning ways to promote effective communication.
- The overall client outcome is to reduce or resolve the factors impairing the communication.

# COMMUNICATION AND THE NURSING PROCESS

## IMPLEMENTING

- Nursing interventions to facilitate communication with clients who have problems with speech or language include manipulating the environment, providing support, employing measures to enhance communication and educating the client and support person.

# COMMUNICATION AND THE NURSING PROCESS

## EVALUATION

Is useful for both client and nurse communication

- Client: to establish whether outcomes have been met in relation to communication, the nurse must listen actively, observe nonverbal cues and use therapeutic communication skills to determine that communication was effective.
- Nurse: process recording – verbatim (word-for-word) is used. Includes all verbal and nonverbal interactions of both the nurse and client.

# FOCUS

You are assigned to take care of Mr. Mana, a 45-year old man, who will be returning from recovery room after undergoing the removal of a mass from his abdomen. While you are preparing his room for his return, the nurse and the physician arrive to talk with Mrs Mana about her husband's surgery. The doctor explains that the mass was malignant and invasive. Mr. mana is a candidate of chemotherapy but his prognosis is guarded because of the extent of the tumour growth. Mrs. Mana looks away, closes her eyes and only nods her head.



# FOCUS

As the physician leaves, the nurse approaches Mrs. Mana, sits next to her and puts her hand around Mrs. Mana who begins to cry. The nurse uses a soothing voice to tell her that it is okay to cry and assures her she will remain with her. The two of them sit together in silence until Mrs. Mana is able to express her feelings. The nurse listens attentively. Later the nurse offers to get a cup of coffee for Mrs. Mana and asks if there is anything she could do to assist Mrs. Mana at this difficult time.

# FOCUS

1. Interpret Mrs. Mana's nonverbal behaviour in response to the news about her husband's surgery.
2. Evaluate the nurse's response towards Mrs. Mana based on the concepts of caring and comforting.
3. Why is it important for the nurse to effectively communicate with Mrs. Mana at this time?
4. The nurse was described as listening attentively to Mrs. Mana. Cite actions that portray attentive listening.

# FOCUS

1. Mrs. Mana's nonverbal behaviour – changes in posture, facial expression, lack of verbal expression, Express fear, disappointment, loss, anxiety, devastation,
2. Caring actions: sitting with Mrs. Mana, listening to her, giving undivided attention, soothing voice, touching, presence, a cup of coffee
3. Provide information, trusting relationship, Stress reduction, helping families understand treatment options, decision making
4. Paying attention to both verbal and nonverbal communication, remaining silent, focusing solely on Mrs. Mana, encouraging her to talk, not interrupting

# OXYGEN ADMINISTRATION

- Oxygenation is the process of oxygen diffusing passively from the alveolus to the pulmonary capillary, where it binds to hemoglobin in red blood cells or dissolves into the plasma.
- Insufficient oxygenation is termed hypoxemia.
- Oxygen delivery  
is the rate of oxygen transport from the lungs to the peripheral tissues
- Oxygen consumption  
is the rate at which oxygen is removed from the blood for use by the tissues.

- Hypoxia literally means "deficient in oxygen", that is an abnormally low oxygen availability to the body or an individual tissue or organ.
- Hypoxemia is the reduction of oxygen specifically in the blood; that is decreased partial pressure of oxygen in blood.
- Anoxia is when there is no oxygen available at all.

- oxygen is a drug and therefore requires prescribing in all but emergency situations.
- Failure to administer oxygen appropriately can result in serious harm to the patient.
- The safe implementation of oxygen therapy with appropriate monitoring is an integral component of the health professional's role.

# Factors affecting delivery of oxygen to tissues

- Inspired oxygen concentration  $FIO_2$
- Alveolar ventilation
- Ventilation-perfusion distribution within lungs
- Haemoglobin Hb and concentrations of agents which may bind to Hb as carbon monoxide
- Influences on the oxygen Hb dissociation curve
- Cardiac output
- Distribution of capillary blood flow within tissues



# Measures of Oxygenation

- Arterial oxygen saturation ( $SaO_2$ )
- Arterial oxygen tension ( $PaO_2$ )
- A-a oxygen gradient
- $PaO_2/FiO_2$  ratio
- A-a oxygen ratio
- Oxygenation index

# Signs and Symptoms of Hypoxemia and Hypoxia

- Dyspnea, tachypnea. Hyperventilation
- Cyanosis +/-
- Impaired mental performance, coma
- Seizures, brain injury
- Tachycardia/ Hypertension –
- Hypotension/ Bradycardia
- Lactic acidosis

# Consequences of Hypoxemia

- 
- Systemic hypotension
- Pulmonary hypertension which can lead to heart failure
- Polycythemia
- Tachycardia
- Cerebral involvement (from confusion to coma)

- Objectives of Oxygen therapy
- To overcome the reduced partial pressure and oxygen quantity in blood
- To increase the quantity of oxygen carried in solution in the plasma, even when the Hemoglobin is fully saturated.

# Indications of Oxygen therapy:

## Respiratory compromise

- Cyanosis
- Tachypnoea
- Hypoxemia
- Partially obstructed airway

## Cardiac compromise

- Chest pain
- Shock
- Tachycardia
- Arrhythmias

## Neurological deficits

- Cerebrovascular accident
- Spinal injuries
- Coma

- Types of oxygen delivery
- Nasal cannulae
- Medium concentration mask
- Fixed concentration mask
- Non-rebreather bag
- Humidified circuits
- High flow systems

- Oxygen Administration Safety
- • Oxygen is extremely hazardous in contact with an open flame
- • Do not allow smoking in an area where oxygen is being administered
- • Educate all patients on O<sub>2</sub>

# Methods of Oxygen Administration

## Nasal cannulas

- Two prongs inserted just inside anterior nares and supported on a light frame
- Oxygen is supplied at rates of 1-4 liters/min resulting in inspired concentrations of approx. 25-30%
-



- Masks
- Simple plastic masks fit over nose and mouth allow inspired oxygen concentrations of upto 60% when supplied with flow rates of 6 liters/min
- Some accumulation of CO<sub>2</sub> occurs within the mask (2%),so cautious use in patients liable to develop CO<sub>2</sub> retention

- Venturi Masks
- 
- Useful mask for delivering controlled oxygen concentrations (e.g. CO<sub>2</sub> retainer patients) based on Venturi principle
- Venturi principle:
- As the oxygen enters the mask through a narrow jet, it entrains a constant flow of air, which enters via surrounding holes.

- Non Rebreather bags
- Reservoir bags'
- Deliver  $\text{FiO}_2$  0.6 – 0.8
- Flow rate must be set to 15l/min
- Fill reservoir 2 thirds before applying
- Useful in acute situation
- Should not be worn >24hrs

- Transtracheal oxygen
- 
- Delivered via a microcatheter inserted through the anterior tracheal wall with the tip lying just above the carina

- Tents
- Used only for children who do not tolerate masks well.
- 
- Ventilators
- Complete control over the composition of the inspired gas is available.
- Patient is mechanically ventilated via endotracheal tube or tracheostomy tube

- Hyperbaric Oxygen
- 100% oxygen is given at an increased pressure of 3 atm.
- Since normal air is 20% oxygen, pure oxygen would be 5 times more oxygen, and at 3times normal air pressure, a patient gets 15 times more oxygen than normal.

- 
- 

#### Indications:

- Decompression illness (the "bends")
- Carbon monoxide poisoning
- Radiation necrosis
- Reconstructive surgery
- Some infections,wounds

- Nasal Cannula
  - Low concentration device
  - Only for patients NOT in respiratory distress
  - Maximum flow rate is 5-6 L/min.
  - Higher flow rates cause nasal drying and discomfort for the patient
  - Deliver approximately 30-40% O<sub>2</sub> concentration
  - Adult and pediatric sizes

- Simple Face Mask
- • Must fit over patient's nose and mouth
- • Flow rates from 10-15 L./min.
- • Use for all patients in respiratory distress
- • Adult and pediatric sizes



- Nonrebreather Mask
  - Provides high concentration of O<sub>2</sub> (up to 90%)
  - Must fit over the patient's nose and mouth
  - Flow rates from 10-15 L./min.
  - Fill the reservoir bag before placing on the patient
  - The reservoir bag before placing on the patient
  - The reservoir bag minimizes rebreathing exhaled air
  - Adult and pediatric sizes

- Hazards of Oxygen Therapy
- 
- Carbon Dioxide Retention
- Oxygen Toxicity
- Atelectasis
- Retrolental Fibroplasia

- Suctioning
  - Used to clear the airway of blood, mucous, and vomitus
  - May be all the patient needs to open the airway
  - Rigid catheters (yankaur or tonsil tip) are used to suction the mouth and oropharynx
  - Soft catheters are used to suction the nose and nasopharynx
  - Insert the catheter to the base of the tongue and apply suction as the catheter is withdrawn
  - Suction no longer than 15 seconds
  - It may be necessary to log roll the patient and manually remove large amounts of emesis

- SUCTION DEVICES

- • Must be readily available and checked frequently.

- • Tubing and collection chambers are cleaned after each patient

- • Have soft and rigid catheters available

- • Rescue suction box

- • V-Vac hand held suction

- Complications of Suctioning
  - • Hypoxia
  - • Bradycardia
  - • Vomiting/aspiration
  - • Trauma to the mucous membranes
  - • Gagging

**ASSISTING  
PATIENTS WITH  
ELIMINATION**

# Elimination

- Elimination patterns are essential to maintain health.
- The urinary and gastrointestinal systems together provide for the elimination of body wastes. The urinary system filters and excretes urine from the body, thereby maintaining fluid, electrolyte, and acid-base balance.
- Normal bowel function provides for the regular elimination of solid wastes.

# Elimination

- During periods of stress and illness, clients experience alterations in elimination patterns.
- Nurses assess for changes, identify problems, and intervene to assist clients with maintaining proper elimination patterns.
- The nurse's role encompasses teaching clients self-care activities to promote independence and health.



# Elimination

- Elimination is normally a private function done without assistance.
- However, during periods of immobility and illness, assistance is needed.
- The main focus of the nurse is to provide maximum comfort and privacy to lessen the client's embarrassment.

# Factors affecting elimination

- Age - A client's age or developmental level will affect control over urinary and bowel patterns. Infants initially lack a pattern to their elimination. Control over bladder and bowel movements can begin as early as 18 months of age but is typically not mastered until age 4.
- Diet - Adequate fluid and fiber intake are critical factors to a client's urinary and bowel health. Inadequate fluid intake is a primary cause of constipation. Diarrhea and flatulence (discharge of gas from the rectum) are a direct result of foods ingested, and clients need to be educated as to which foods and fluids promote healthy elimination and which foods may inhibit it.

# Factors affecting elimination

- Exercise - enhances muscle tone, which leads to better bladder and sphincter control. Peristalsis is also aided by activity, thus promoting healthy bowel elimination patterns.
- Medications - can have an impact on a client's elimination health and patterns and should be assessed during the health history interview. Cardiac clients, for instance, are commonly prescribed diuretics, which increase urine production. Antidepressants and antihypertensives may lead to urinary retention. Some over-the-counter (OTC) cold remedies, especially antihistamines, may also result in urinary retention.

# Assessment of elimination patterns

- Many people, consider incontinence to be a hygienic rather than a health concern.
- Parents may view incontinence in children to be a form of misbehavior.
- Some adults consider incontinence to be a form of childlike or infantile behavior, or they may believe that urinary or fecal leakage is an inevitable consequence of aging.

# Assessment of elimination patterns

- When screening questions concerning altered patterns of elimination reveal significant findings, the interview should be expanded to include specific questions about the nature of the elimination disorder.
- The physical examination for elimination patterns focuses on functional issues associated with urinary or fecal incontinence and assesses the perineal and perianal areas.

# Urinary elimination

# Urinary elimination

- Contenance in the adult requires anatomic integrity of the urinary system, nervous control of the detrusor muscle, and a competent sphincter mechanism.
- Urinary incontinence occurs when abnormalities of one or more of these factors causes an uncontrolled loss of urine that produces social, physiological, or hygienic difficulties for the client.

# Common urinary elimination alterations

- Urinary retention
- Urinary incontinence (stress, total, acute)



# Managing altered urinary elimination

- Ensure adequate daily fluid intake (15 ml/lb body weight).
- Reduce or avoid bladder irritants.
- Reduce alcohol consumption.
- Stop smoking.
- Teach pelvic muscle exercises to women (Kegel exercises).

# Urinary Retention

- The state in which the individual experiences incomplete emptying of the bladder.
- Major characteristics for urinary retention include bladder distension and small, frequent voiding or absence of urine output.
- Minor characteristics include sensation of bladder fullness, dribbling, residual urine, dysuria, and overflow incontinence.
- High urethral pressure caused by weak detrusor, inhibition of reflex arc, strong sphincter, and blockage are related factors for urinary retention.

# Common Causes of Urinary Retention

- Bladder outlet
- Prostatic enlargement obstruction
  - • Benign prostatic hyperplasia
  - • Prostate cancer
  - • Prostatitis
- Bladder neck dyssynergia
- Urethral stricture
- Urethral tumor (rare)

# Total Urinary Incontinence

- Total Urinary Incontinence is the state in which an individual experiences a continuous and unpredictable loss of urine.
- Major characteristics include constant flow of urine occurring at unpredictable times without distension, uninhibited bladder contractions or spasms, unsuccessful incontinence refractory treatments, and nocturia.

# Total Urinary Incontinence

- Related factors include neuropathy that prevents transmission of the reflex that indicates bladder fullness, neurologic dysfunction causing triggering of micturition at unpredictable times, independent contraction of the detrusor reflex owing to surgery, trauma, or disease that affects spinal cord nerves, or anatomy (fistula).

# Urinary catheterization

- Urinary catheterization is an aseptic procedure but is also the most common cause of hospital-acquired infections, which can occur during insertion or removal of the catheter.
- Repeated catheterization causes trauma and results in infection.
- Patients should be catheterized only if clinically indicated

# Urinary catheterization

- It is important to use the correct urinary catheter for the condition. Foley catheters require no more than 5-10 ml water.
- The balloon can cause obstruction and stasis of the urine if it is too large, thus increasing the risk of infection.

# Catheterization

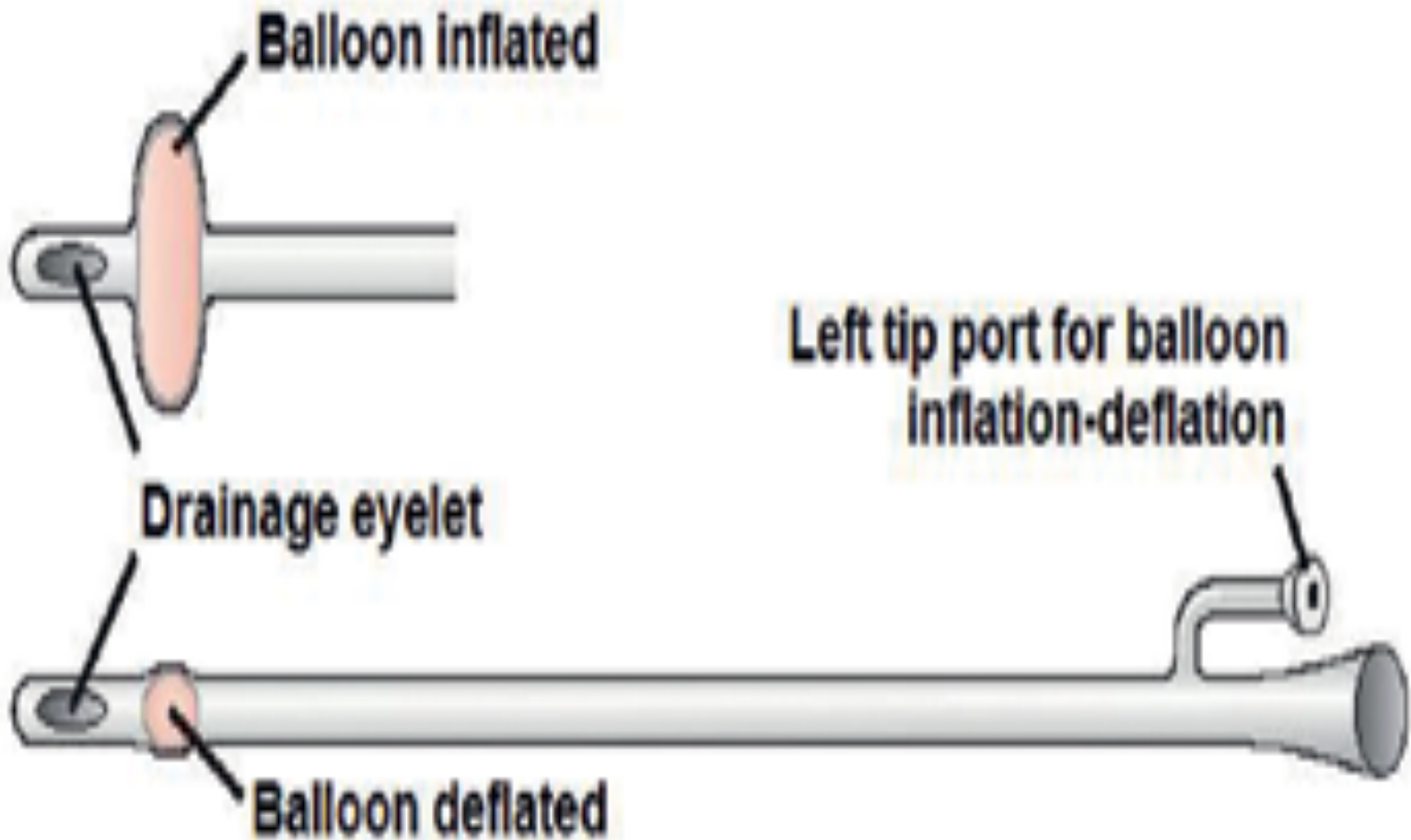
- Occasionally, an indwelling urethral or suprapubic catheter may be used to provide continuous drainage for reflex incontinence.
- An indwelling catheter may be inserted for an acute episode of urinary retention or when other strategies to manage retention are ineffective. A catheter is chosen that minimizes urethral irritation and maximizes drainage from the bladder.



# Foley catheter



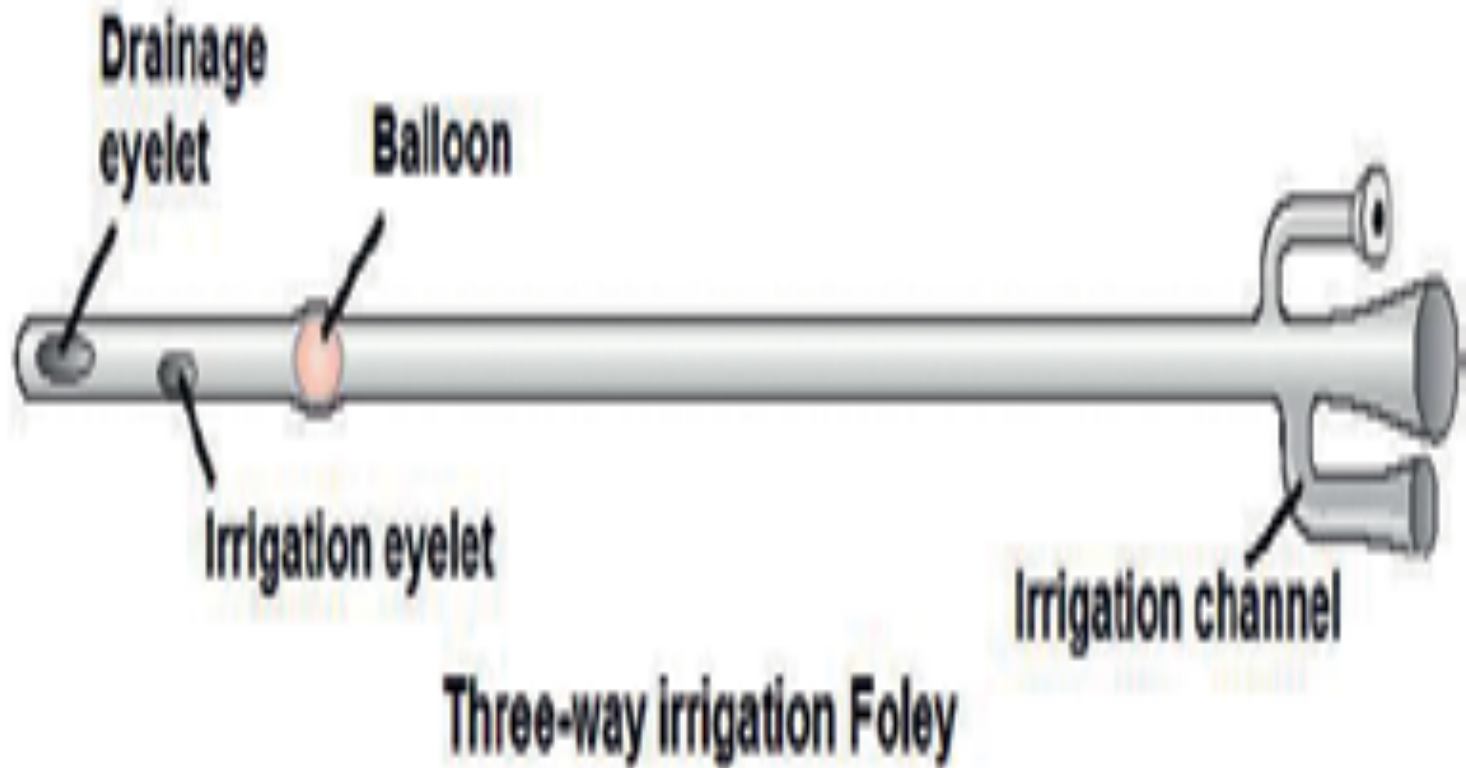
# Two [?] way catheter

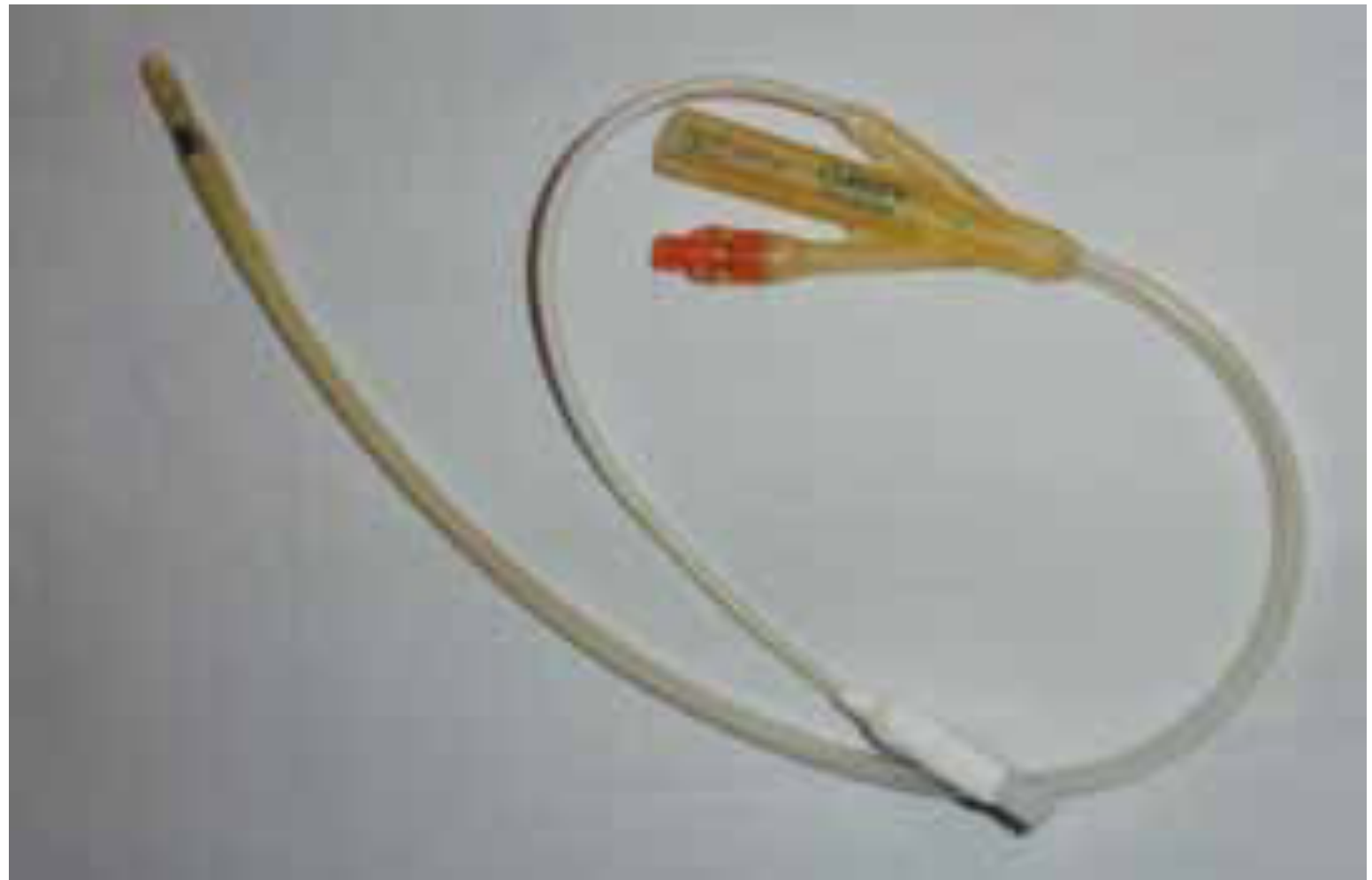


# Three – way foley catheter with baloon



# Three way catheter





# Pre-connected drainage system



# Coud Catheter



# Coudé Catheter

- The use of a coudé catheter is indicated when intermittent catheterization is needed.
- The coudé catheter works much like the other catheters; however, a distinguishing feature is that the tip of the catheter is more pointed and curved.
- The coudé catheter does not have a balloon; therefore it cannot be used for a procedure requiring an indwelling catheter.



# Urethral catheterization

- Urethral catheterization is a procedure that involves introducing a flexible rubber (latex, silicone, or Teflon) tube through the urinary opening (urethra) into the bladder.

There are two types of urethral catheterization.

- In straight, or short-term, urethral catheterization, a catheter is inserted only long enough to drain the bladder of urine and is then removed.
- In indwelling catheterization, a specialized catheter is inserted into the bladder for an extended period (days to weeks) to allow continuous drainage of urine into a collection bag.

# Urethral catheterization

- Indications for urethral catheterization include:
- To drain the bladder prior to, during, or after surgery
- For investigations
- To relieve retention of urine
- To accurately measure the urine output
- To relieve urinary incontinence when no other means is practical

# Urethral catheterization

## CONTRA-INDICATIONS

Nurses should not perform catheterisation without first seeking medical advice on the following:-

- Patients who have a history of urethral stricture
- Patients who have undergone trans-urethral resection of the prostate gland in the previous 48 hours
- Patients with a phimosis (tight foreskin)
- Patients who have a past history of difficulty in catheterisation
- Undiagnosed haematuria
- Urinary tract infection with clinical symptoms

# Urethral catheterization

- Equipment
- Dressing trolley
- Catheterization pack and drapes
- Sterile gloves
- Appropriate size catheter (see catheter size guideline below)
- Xylocaine jelly syringe (plain sterile lubricant for infants)
- Sterile water for balloon
- 5ml Syringe
- Specimen jar
- Antiseptic solution. Aqueous Chlorhexidine 0.1% with Cetrimide (yellow solution) or Aqueous Chlorhexidine 0.1% (blue solution).
- Tape to secure catheter to leg
- Drainage bag
- Urine bag holder

# Catheterization Procedure

- Environment
- Explain the procedure to the patient/ child and the parents and obtain consent
- The bed is screened to ensure privacy
- Keep the patient warm at all times
- Ensure adequate light source

# Catheterization Procedure

1. Prepare the client for catheterization by reviewing the procedure. Reassure the client that catheterization will not produce a sharp pain; instead, inform the client that catheterization will produce sensations of intense urgency to urinate and pressure centered on the urethral and suprapubic area.
2. Documentation of the amount of water used to inflate the retention balloon assists when removing the indwelling catheter.
3. A catheter should be constructed of silicone or a lubricious coating to minimize urethral trauma and irritation.

# Catheterization

- NOTE: The procedure for a straight catheterization (not indwelling) is the same.
- However, the catheter is inserted only long enough to obtain a urine specimen or to completely drain the bladder.

# Catheterization

## BALLOON SIZE

- • Use the smallest balloon size possible. This keeps residual urine minimal, reduces the likelihood of bladder spasm, and minimizes damage to the bladder neck from the weight of the balloon
- • Balloon sizes: 5 – 30 mls. The most commonly indicated balloon size is 10ml. Always inflate the balloon to the manufacturers recommended volume indicated on the inflation valve of the catheter as well as written on the packaging.
- • The 30ml balloon is designed specifically as a haemostat post urological procedure, and should not be used for routine catheterisation
- • Inflate with sterile water. Air is not suitable as it will cause the balloon to float. Tap water is not sterile, and saline may block the inflation channel with crystals, making subsequent deflation difficult



# Performing catheterization: Female client

Action	Rationale
2. Assist the client to a supine position with legs spread and feet together or to a side-lying position with upper leg flexed.	2. Facilitates visualization of area and promotes client comfort.
3. Drape client's abdomen and thighs.	3. Promotes client comfort and warmth.
4. Ensure adequate lighting of the perineum.	4. Facilitates proper execution of technique.
6. Separate the perineum and, using forceps, cleanse the periurethral mucosa with a povidone-iodine or other antimicrobial cleanser	6. Removes dirt and minimizes the risk of urinary tract infection by removing surface pathogens.
7. Generously coat the distal portion of the catheter with water-soluble, sterile lubricant.	7. Avoids urethral trauma and discomfort during catheter insertion.
8. Gently insert the catheter into meatus until urine is noted. Continue inserting for 1 to 3 additional inches.	8. Ensures adequate catheter insertion before retention balloon is inflated.

# Performing catheterization: Female client

Action	Rationale
9. Inflate the retention balloon using manufacturer's recommendations or according to physician orders.	9. Ensures retention of the balloon; up to twice the recommended volume of fluid may be inserted safely into the retention balloon if needed.
10. Instruct the client to immediately report discomfort or pressure during balloon inflation; if pain occurs, discontinue the procedure, deflate the balloon, and insert the catheter further into the bladder.	10. Pain or pressure indicates inflation of the balloon in the urethra; further insertion will prevent misplacement and further pain or bleeding.
11. Gently pull the catheter until the retention balloon is snugged against the bladder neck (resistance will be met).	11. Maximizes continuous bladder drainage.
12. Secure the catheter to the abdomen or thigh.	12. Prevents excessive traction from the balloon rubbing against the bladder neck, inadvertent catheter removal, or urethral erosion.
13. Place the drainage bag below the level of the bladder.	13. Maximizes continuous drainage of urine from the bladder (drainage is prevented when the drainage bag is placed above the abdomen).

# Correct Catheter Placement: Female Client



# Performing catheterization: Male client

## Equipment

- Indwelling catheter with drainage system
- Sterile catheterization kit
- Adequate lighting source
- Disposable gloves
- Blanket or drape
- Soap and washcloth
- Warm water Towel
- Forceps

# Performing catheterization: Male client

Action	Rationale
1. Provide for privacy and explain procedure to client.	1. Promotes cooperation and client dignity.
2. Set the bed to a comfortable height to work, and raise the side rail on the side opposite you.	2. Promotes proper body mechanics and assures client safety.
3. Assist the client to a supine position with legs slightly spread.	3. Relaxes muscles to facilitate insertion of the catheter.
4. Drape the client's abdomen and thighs, and place the penis over the thighs.	4. Promotes client comfort and warmth.
5. Ensure adequate lighting of the penis.	5. Facilitates proper execution of technique.
6. Wash hands, don disposable gloves, and wash perineal area.	6. Reduces transfer of microorganisms.
7. Remove gloves and wash hands.	7. Reduces transfer of microorganisms.

# Performing catheterization: Male client

Action	Rationale
8. Prepare a sterile field, apply sterile gloves, and connect the catheter and drainage system (if necessary).	8. The catheter and drainage system may be preconnected; otherwise it is connected before catheterization to avoid exposing the client to ascending infection from an open-ended catheter.
9. Gently retract the foreskin (if present) and, using forceps, cleanse the glans penis with a povidone-iodine solution or other antimicrobial cleanser.	9. Removes dirt and minimizes the risk of urinary tract infection by removing surface pathogens.
10. Inject 10 ml water-soluble lubricant (use a 2% xylocaine lubricant whenever feasible) into the urethra before catheter insertion; generously coat the distal portion of the catheter with water-soluble, sterile lubricant.	10. Avoids urethral trauma and discomfort during catheter insertion and facilitates insertion.
11. Hold the penis perpendicular to the body and pull up gently.	11. Facilitates catheter insertion by straightening urethra.
12. Steadily insert the catheter about 8 inches, until urine is noted. Continue inserting until the hub of the catheter	12. Ensures adequate catheter insertion before retention balloon is inflated.

# Performing catheterization: Male client

Action	Rationale
13. Inflate the retention balloon using manufacturer's recommendations or according to physician orders.	13. Ensures retention of the balloon; up to twice the recommended volume of fluid may be inserted safely into the retention balloon if needed.
14. Instruct the client to immediately report discomfort or pressure during balloon inflation; if pain occurs, discontinue the procedure, deflate the balloon, and insert the catheter farther into the bladder.	14. Pain or pressure indicates inflation of the balloon in the urethra; further insertion will prevent misplacement and further pain or bleeding.
15. Gently pull the catheter until the retention balloon is snugged against the bladder neck (resistance will be met)	15. Maximizes continuous bladder drainage.
16. Secure the catheter to the abdomen or thigh.	
17. Place the drainage bag below the level of the bladder.	
18. Remove gloves, dispose of equipment, and wash hands.	
19. Help client adjust position.	
20. Assess and document the amount, color, odor, and quality of urine.	

# Correct Catheter Placement: Male Client





# Condom Catheter

- The condom catheter is a device that resembles a condom with a large-caliber connector at its distal end. This is connected to a drainage bag via a leg bag or bedside container for urinary containment.
- The ideal device adheres to the penile skin without producing irritation and has sufficient elasticity to maintain its watertight seal whether the penis is in an erect or a flaccid state.

# Condom catheter



# Applying a condom catheter

## Equipment

- Bedpan (regular or fracture)
- Toilet paper
- Disposable gloves
- Washcloth and towel
- Bedpan cover

# Applying a condom catheter

Action	Rationale
<ol style="list-style-type: none"><li>1. Wash hands and apply gloves.</li><li>2. Select an appropriate condom catheter.</li><li>3. Cleanse the penile shaft.</li><li>4. Inspect the penile shaft for excessive hair.</li><li>5. Inspect the penis for altered skin integrity.</li></ol>	<ol style="list-style-type: none"><li>1. Reduces risk of contamination.</li><li>2. The condom catheter must be sized correctly (refer to manufacturer's recommendations), contain a distal tip that resists twisting and occlusion, and contain an adhesive that prevents leakage; latex condom catheters are avoided in men who are allergic to latex.</li><li>3. Reduces surface dirt and pathogens.</li><li>4. Excessive penile hair is shaved to provide a watertight seal when the condom is applied.</li><li>5. Small lesions may be protected by the use of a skin sealant.</li></ol>

# Applying a condom catheter

Action	Rationale
<p>6. Stretch the shaft of the penis and unroll the condom to the base of the penis.</p> <p>Follow product directions for the application of the sealant.</p> <p>7. Attach the condom to the drainage apparatus, either a leg bag or bedside drainage bag.</p> <p>8. Remove gloves and wash hands.</p> <p>9. Remove and reapply the condom catheter every 24 to 48 hours, or when leakage occurs.</p>	<p>6. The condom is applied over the entire penile shaft to maximize a watertight seal; the adhesive may be built into the wall of the condom, or a dual-sided sealant strip may be used to prevent leakage.</p> <p>7. Ensures adequate urine containment.</p> <p>8. Reduces the risks of contamination.</p> <p>9. Regular reapplication allows routine inspection of the penile skin and avoids bacterial over-growth and altered skin integrity under the condom.</p>

**Unroll condom catheter to the base of the penis.**



# Secure the condom catheter with a strap



# Emptying the Drainage Bag

## INDICATIONS

1. To dispose of urine
2. To monitor urinary output
3. To prevent reflux to kidneys. (Leg bag should be emptied when two third full)



# Emptying the Drainage Bag

## REQUIREMENTS

- Disposable plastic apron
- Non-sterile disposable gloves as per Glove Guidelines
- Clean container for urine (KEPT FOR THIS PURPOSE ONLY) e.g. Measuring jug/urinal
- Tissue/Paper towel
- Disposal bag as per Clinical Waste Guidelines

# Emptying the Drainage Bag

- This should be done wearing non-sterile gloves and via the drainage tap at the bottom of the bag. When the bag is empty, the tap should be closed securely and wiped with a tissue.
- If the bag does not have a tap, then replace it when full. Do not disconnect the bag to empty and then reconnect it.
- Wash and dry hands thoroughly after touching the drainage bag.
- With proper handling, drainage bags with taps can be left in situ for long periods and are more cost-effective in the long run.
- A separate urine bag-collecting receptacle must be used for each patient and each bag should be emptied separately as required.

# Emptying the Drainage Bag

- Hand hygiene and cleaning of periurethral area before insertion of a sterile catheter.
- Maintenance of a closed drainage system.
- Hand hygiene before and after emptying bags.

# Documentation

The procedure is documented in the child's medical record. The documentation should be signed by the person inserting the catheter. Documentation should include:

- Indication for catheterization
- Time and date of procedure
- Type of catheter.
- Size of catheter
- Expiry date of catheter
- Amount of water in balloon
- Any problems with insertion

# DOCUMENTATION

- Procedure and time done.
- Size of catheter.
- Amount of urine output.
- Color and character of urine.
- Client's response and how tolerated.
- Description of urine, colour and volume
- Specimen collected
- Review date

# Ongoing nursing management

- Measure urine output hourly and document
  - Normal urine output is 0.5-1 ml/kg/hr. Report any variation from this
  - If oliguric ensure catheter is not blocked
    - No routine change of urinary catheter or drainage bag is necessary. Change for clinical indicators if infection, obstruction or if system disconnects or leaks. Replace system and/or catheter using aseptic technique and sterile equipment
  - Maintain unobstructed urine flow. Gravity is important for drainage and prevention of urine backflow. Ensure the drainage bag is below the level of the bladder, is not kinked and is secured
    - Urine for urinalysis or culture should be collected fresh from sampling port of catheter tubing (not drainage bag). Clean port with disinfectant first

# Ongoing nursing management

- Drainage system
  - Adherence to a sterile continuously closed method of urinary drainage has been shown to markedly reduce the risk of acquiring a catheter associated infection
- Hygiene
  - Daily warm soapy water is sufficient meatal care or PRN if build up of secretions is evident
  - Uncircumcised boys should have the foreskin gently eased down over the catheter after cleaning

# Ongoing nursing management

- Infection surveillance
  - Consider daily the need for the indwelling catheter to remain insitu. Remove as soon as no longer required to reduce risk of UTI
  - Cloudy, offensive smelling or unexplained blood stained urine is not normal and needs further investigation
  - Full Ward Test (dipstick) should be done each day. This test can detect urinary protein, blood, nitrates
  - Specimen collection
    - Large volumes e.g. 24hr collection, can be collected from drainage bag
- Record fluid balance.



# Complications

- Inability to catheterize
- Urethral injury from trauma sustained during insertion or balloon inflation in incorrect position
  - Haemorrhage
  - False passage
  - Urethral strictures following damage to urethra. This may be a long term problem
- Infection
- Psychological trauma
- Paraphimosis due to failure to return foreskin to normal position following catheter insertion

# CATHETERISATION OF A PATIENT WITH A SUPRA-PUBIC CATHETER

## DEFINITION

- Insertion of a catheter into the bladder through the anterior wall of the abdomen using an aseptic technique.

## CAUTION

- Previous difficulties that have required medical assistance
- Blood clotting disorder

# CATHETERISATION OF A PATIENT WITH A SUPRA-PUBIC CATHETER

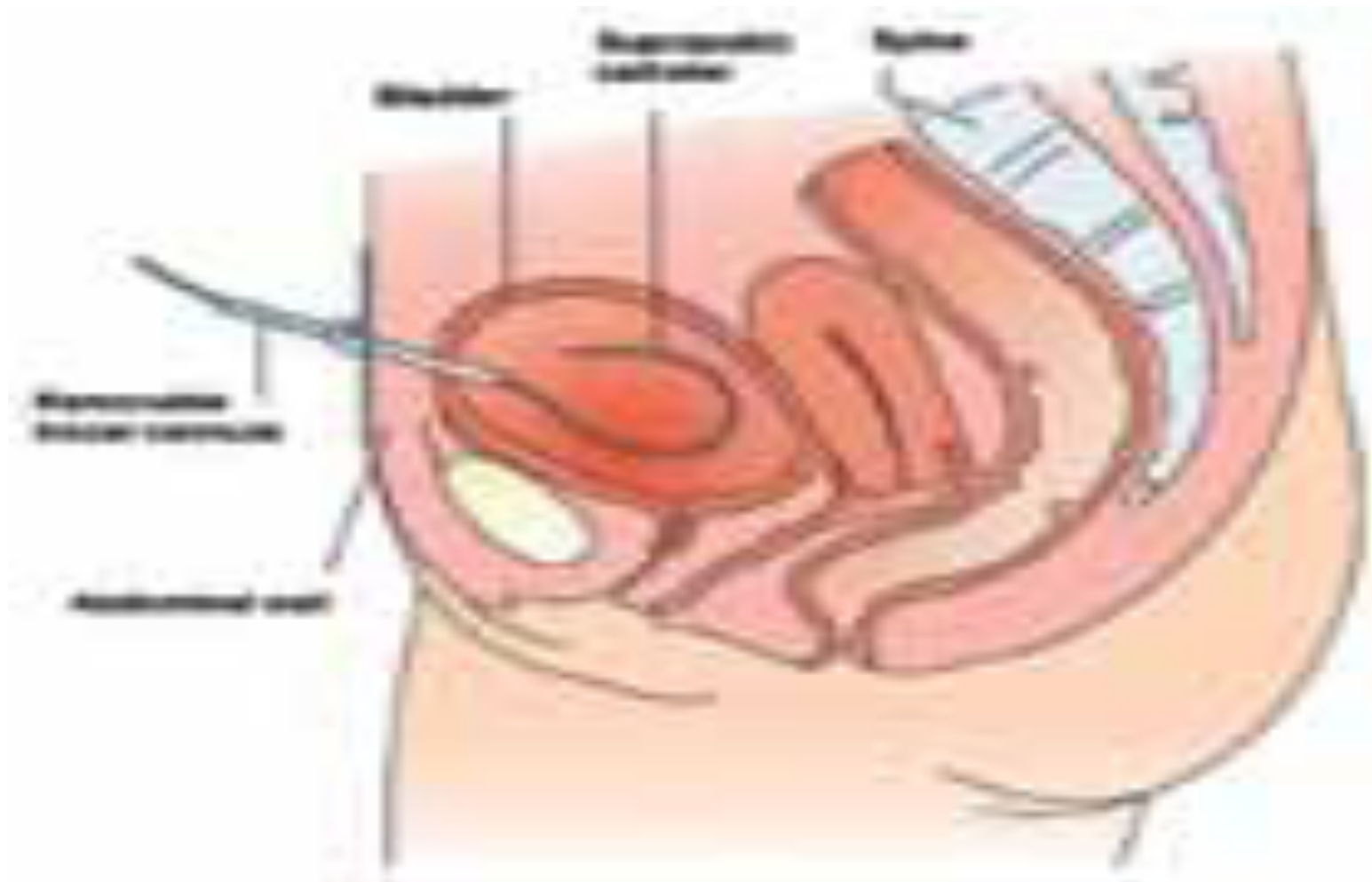
## INDICATIONS FOR SUPRA-PUBIC CATHETERISATION

- When it is not possible for a urethral catheter to be inserted e.g. stricture
- Where limb contractures make urethral catheter insertion and management difficult
- Improved patient comfort for wheelchair dependent patients and easier management of catheter change
- Minimises urethral trauma and development of mega urethra
- May be more acceptable in patients who are sexually active
- Can improve lifestyle of patient
- Where it is patients preferred choice
- Post operatively for bladder drainage or to monitor residual urine volume

# INDICATIONS FOR SUPRAPUBIC CATHETERISATION

- To relieve acute urinary obstruction where a urethral catheter cannot be inserted into the bladder eg. urethral stricture
- To relieve chronic urinary retention eg enlarged prostate
- Relieve chronic retention of the neurogenic bladder
- For clients who require long-term catheterisation, who are sexually active, in a wheelchair, or have persistent problems with urethral catheters.
- During and following pelvic or urological surgery

# Suprapubic catheter



# Bladder washout, irrigation and instillation

- “manual washout or bladder lavage” is defined as the washing out of the bladder with sterile fluid and “bladder irrigation” as the
- continuous washing out of the bladder with sterile fluid.
- One indication of Bladder instillations is to prevent or treat catheter blockages.
- Instillation treatments are not limited to saline or citric acid solutions; there are some others such as chemotherapy drugs (i.e. mitomycin-C or epirubicin) or antiinflammatory drugs (i.e. hyaluronic acid), to reduce toxicity of brachytherapy or vesicoureteral reflux.

**FEACAL  
ELIMINATION**

# Bowel Elimination

- Continence primarily relies on the consistency of the stool (fecal material), intestinal motility, compliance and contractility of the rectum, and competence of the anal sphincters.



# Feacal elimination

- Elimination of the waste products from the body is essential to health.
- Defecation (bowel movement) is the expulsion of feaces from the anus and rectum.
- Normal feaces are made up of about 75% water and 25% solid mass.
- Feaces are normally brown due to presence of stercobilin and urobilin. Also action of bacteria e.g E. coli or staphylococci which are normally present present in the large intestine.

# Characteristics of normal and abnormal feaces

Characteristic	Normal	Abnormal	Possible cause
Colour	Adult: brown Infant: yellow	Clay/ white black or tarry  Red Pale Orange or green	Absence of bile pigment Drug; bleeding from upper GIT; diet high in red meat and dark green veges Bleeding from lower GIT Malabsorption of fats Intestinal infection
Consistency	Formed, soft, semisolid, moist	Hard, dry  Diarrhoea	Dehydration; lack of exercise; emotional upset; lack of fiber in diet; laxative abuse Increased intestinal motility
Shape	Cylindrical	Narrow, pencil- shaped or string like	Obstructive condition of the rectum

# Characteristics of normal and abnormal feaces

Characteristic	Normal	Abnormal	Possible cause
Odour	Aromatic	Pungent	Infection
Constituents	Small amounts of undigested roughage, sloughed dead bacteria and epithelia cells, fat, protein, dried constituents of digestive juices (bile pigments, inorganic matter)	<ul style="list-style-type: none"> <li>Pus</li> <li>Mucus</li> <li>Parasites</li> <li>Blood</li> <li>Large quantities of fat</li> <li>Foreign objects</li> </ul>	<ul style="list-style-type: none"> <li>Bacterial infection</li> <li>Inflammatory condition</li> <li>GIT bleeding</li> <li>Malabsorption</li> <li>Accidental ingestion</li> </ul>
Amount	Varies with diet (100-400g per day)		

# Factors that affect defecation

- Development
- Diet
- Activity – poor activity leads to constipation
- Psychologic factors – anxiety or anger increase peristaltic action. In depression, it is slow
- Defecation habits – defecating at a regular time
- Medications – can interfere with normal elimination
- Diagnostic procedures – colonoscopy, sigmoidoscopy

# Factors that affect defecation

- Anaesthesia and surgery – cause normal colonic movements to cease or slow by blocking parasympathetic stimulation to the muscles of the colon.
- Pathologic condition – spinal injuries can decrease the sensory stimulation for defecation
- Pain – clients who experience discomfort when defecating often suppress the urge to defecate to avoid pain.

# Feacal elimination problems

- Constipation – fewer than three bowel movements per week
- Diarrhoea – passage of liquid feaces and an increased frequency of defeacation
- Bowel incontinence – loss of voluntary ability to control feacal and gaseous discharges through the anal sphincter
- Flatulence – presence of excessive flatus in the intestines that leads to stretching and inflation of the intestines

# Diarrhea

- Diarrhea is the state in which an individual experiences a change in normal bowel habits characterized by the frequent passage of loose, fluid, unformed stools.
- Defining characteristics include abdominal pain, cramping, increased frequency, increased frequency of bowel sounds, loose or liquid stools, and urgency.
- Other possible characteristics include change in color of stools. Gastrointestinal, metabolic, nutritional, or endocrine disorders; infectious processes; tube feedings; fecal impaction; change in dietary intake; adverse affects of medications; and high stress levels may all contribute to diarrhea.

# Bowel Incontinence

- A state in which an individual experiences a change in normal bowel habits characterized by involuntary passage of stool.
- Related factors may include gastrointestinal and neuromuscular disorders, colostomy, loss of rectal sphincter control, and impaired cognition.



# Fecal incontinence

- Fecal incontinence is the involuntary loss of stool of sufficient magnitude to create a social or hygienic problem.
- The primary mechanisms that predispose the adult to incontinence of stool are dysfunction of the anal sphincter, disorders of the delivery of stool to the rectum, disorders of rectal storage, and anatomic defects.

# Fecal incontinence

- A disorder of stool volume and consistency is typically not enough to produce fecal incontinence in the otherwise normal individual. Instead, the person is likely to perceive a precipitous urgency to defecate, an impulse that is heeded rapidly.
- However, if the volume of stool is sufficient and the storage capacity of the rectum is compromised, or sphincter function is suboptimal, fecal incontinence may result.

# Assisting client elimination

- Positioning of the client plays an important role in elimination.
- Sitting is the usual position for both men and women for bowel elimination. Sitting is also the usual position for women to urinate; standing is the position preferred by some men.
- Clients unable to use the toilet require assistance in accomplishing elimination.
- Devices such as the bedpan, commode, or urinal can be substituted

# Assisting client elimination

- Clients who use a bedpan need as comfortable a setting as possible, therefore, after placement of the bedpan the head of the bed should be elevated to a 45° angle, unless contraindicated.
- The nurse may need to assist the client to cross the legs in order to create somewhat of a sitting position.
- Clients who are able to get out of bed but are unable to ambulate to the toilet can use a bedside commode, which resembles a toilet but is portable. Typically, the client is assisted to stand and pivot to the commode from the bed.

# Types of bed pans



# Male urinal



# Assisting the client using a bedpan

## INDICATIONS

- Clients restricted to bed

# Positioning and Removing a Bedpan

## Equipment

- Bedpan (regular or fracture)
- Toilet paper
- Disposable gloves
- Washcloth and towel
- Bedpan cover



# Positioning and Removing a Bedpan

Action	Rationale
<ol style="list-style-type: none"><li>1. Close curtain or door.</li><li>2. Wash hands, apply gloves.</li><li>3. Lower head of bed so client is in supine position.</li><li>4. Assist client to side-lying position using side rail.</li><li>5. Warm bedpan under warm water if needed, powder if necessary.</li><li>6. Place bedpan under buttocks, with lower end near the lower back region</li></ol>	<ol style="list-style-type: none"><li>1. Provides for privacy.</li><li>2. Prevents transmission of microorganisms.</li><li>3. The supine position will increase ability of client to move to side-lying position.</li><li>4. Provides for best position for proper placement of bedpan.</li><li>5. For comfort, prevents bedpan from sticking to the skin.</li><li>6. Ensures proper placement of the bedpan before client rolls on top of bedpan.</li></ol>

# Positioning and Removing a Bedpan

Action	Rationale
7. While holding the bedpan with one hand, help the client to roll onto her back.	7. Prevents dislocation or alignment of bedpan.
8. Check placement of bedpan by looking between client's legs.	8. May prevent spillage due to misalignment of bedpan.
9. If indicated, elevate head of bed to 45° angle.	9. Check physician order; bed remains flat if patient has a spinal cord injury or spinal surgery.
10. Place call light within reach of patient; place side rails in upright position and allow for privacy.	Elevating the head of bed creates a more normal elimination position. 10. Privacy allows for a more comfortable elimination environment; elevated side rails provide for safety.

# Removing a Bedpan

Action	Rationale
11. Wash hands, don gloves.	11. Prevents transmission of microorganisms.
12. Lower head of bed to supine position.	12. Increases patient's ability to move to side
13. While holding bedpan with one hand, roll client to side.	-lying position.
14. Assist with cleaning or wiping; always wipe with a front to back motion.	13. Prevents possible spillage of bedpan contents.
15. Empty bedpan, clean it, and store it in proper place; if bedpan is to be emptied outside client's room, cover it during transport.	14. Client may not be able to clean herself; wiping from front to back decreases chances of cross-contamination from anus to urethra.
16. Remove gloves and wash hands.	15. Promotes privacy and decreases the chance of spilling contents.
17. Allow client to wash hands.	16. Prevents transmission of microorganisms.
18. Place call light within reach; recheck that side rails are in the upright position.	17. Provides for physical hygiene and comfort.
	18. Ensures client safety and comfort.

Slip the bedpan under the client's buttocks while client lifts herself with the trapeze.



Place the bedpan against the client's buttocks while rolling client to side



# Administering Enemas

- Enema administration is a procedure used to introduce fluid into the lower bowel.
- The purpose of an enema is to cleanse the lower bowel, to assist in the evacuation of stool or flatus, or to instill medication. Enemas can be large or small depending on their purpose.

# Administer Enemas

- Large-volume enemas, which typically contain 500 to 1000 ml fluid, are administered to cleanse the bowel.
- Small-volume enemas are used for the purpose of evacuating stool or instilling medications in the lower bowel. These are usually found as prepackaged solutions, which contain 150 to 240 ml fluid.

# Administer Enemas





# Bowel diversion ostomies

- Ostomy is an opening for the GIT, urinary or respiratory tract onto the skin
- Bowel diversion ostomies are often classified according to:
  - a) Their status, permanent or temporary
  - b) Anatomic location
  - c) Construction of the stoma (opening)

# Bowel diversion ostomies

- Bowel diversion surgery allows stool to safely leave the body when—because of disease or injury—the large intestine is removed or needs time to heal.
- Cancer, trauma, inflammatory bowel disease (IBD), bowel obstruction, and diverticulitis are all possible reasons for bowel diversion surgery.

# Types of bowel diversion surgery

- Ileostomy diverts the ileum to a stoma. Semisolid waste flows out of the stoma and collects in an ostomy pouch, which must be emptied several times a day. An ileostomy bypasses the colon, rectum, and anus and has the fewest complications.
- Colostomy is similar to an ileostomy, but the colon—not the ileum—is diverted to a stoma. As with an ileostomy, stool collects in an ostomy pouch.
- Ileoanal reservoir surgery is an option when the large intestine is removed but the anus remains intact and disease-free. The surgeon creates a colonlike pouch, called an ileoanal reservoir, from the last several inches of the ileum.

# Colostomy



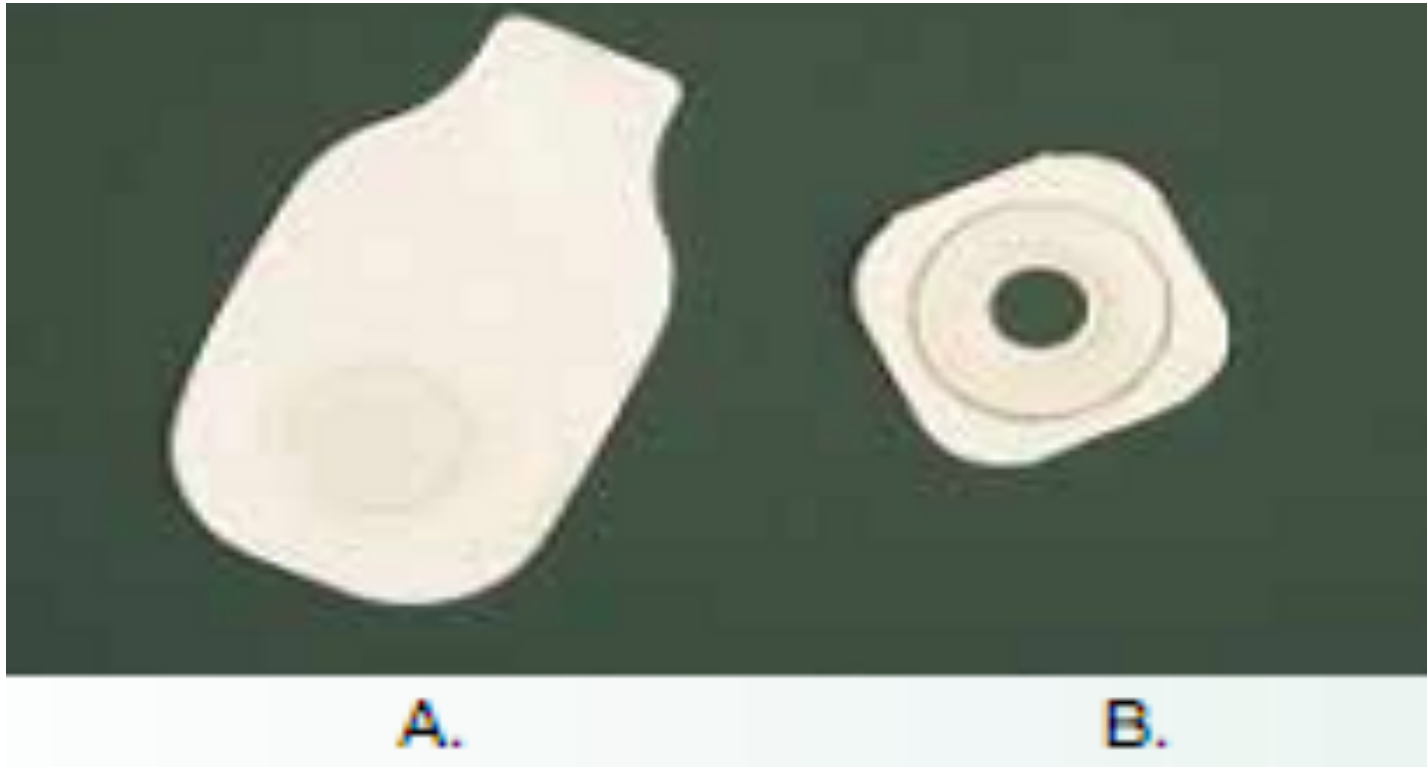
# Changing a colostomy pouch

## Equipment

- Appropriate pouch
- Skin barrier
- Pouch clip or rubber band
- Skin paste
- Disposable gloves
- Soap and washcloth
- Warm water

# Equipment for Application of a Colostomy Pouch:

A. Colostomy Pouch; B. Skin Barrier



# Changing a colostomy pouch

Action	Rationale
1. Explain the procedure to client and provide for privacy. Include caregivers in instruction if indicated.	1. Promotes cooperation and boosts caregiver confidence in ability to perform procedure.
2. Assist client to a standing (preferable) or sitting position.	2. Facilitates application of pouch by reducing wrinkles.
3. Wash hands and don gloves.	3. Reduces risk of contamination.
4. Remove the soiled pouch by gently pressing on the skin while pulling the pouch.	4. Avoids trauma to the peristomal skin. 5. Minimizes odor associated with the pouch change.
5. Dispose of the pouch in a plastic bag after removing the clip used to seal the pouch.	6. Removes fecal material and pathogens and prepares the skin for pouch reapplication.
6. Cleanse the skin with soap and water.	

# Changing a colostomy pouch

Action	Rationale
7. Inspect the peristomal skin for redness, altered skin integrity, or rashes; consult the enterostomal nurse if lesions of the peristomal skin are observed.	7. Peristomal skin conditions cause morbidity and problems with pouch application unless managed promptly.
8. Remove excessive hair with a safety razor or electric razor.	8. Excessive hair is removed to promote the seal between pouch adhesive and peristomal skin.
9. Inspect the pouch opening and ensure that it fits the stoma; use a pouch pattern to customize the fit if indicated.	9. Ensures appropriate-sized pouch and protects the peristomal skin.
10. Apply a skin sealant or skin paste if indicated; apply skin barrier.	10. Promotes an effective seal and protects the peristomal skin.
11. Gently apply the pouch and press into place. Seal the inferior opening with the clip or a rubber band.	11. Prevents leakage of effluent from the pouch.
12. Remove gloves and discard; wash hands.	12. Reduces risk of transfer of microorganisms.
13. Note type and size of pouch; condition of stoma (drainage amount and odor; surrounding skin); and client response.	13. Documents client status and condition of stoma.



# Applying the skin barrier to the stoma.



Press the pouch into place.



# Infant with ostomy bag.



# Changing an ostomy appliance

## Assessment.

Prior to and during the procedure, the nurse should assess:

- the color of the stoma.
- the stoma for swelling.
- the peristomal skin for irritation and redness.
- the feces for amount, color, consistency, presence of blood or pus.
- the patient's knowledge and understanding of ostomy care.

# Changing an ostomy appliance

Planning.

The nurse should assemble the following equipment:

- Non-sterile gloves, to protect hands.
- a water-proof bag for the soiled appliance to minimize odor.
- cleaning materials, including tissues, warm water, wash cloth, towel, and in some cases, mild soap.
- gauze pad to cover the stoma.
- a skin barrier, in the form of a spray, disc, or sheet to protect the skin.
- measuring guide (stoma guidestrip) to measure the stoma.
- clamp.
- scissors if the appliance does not have a precut opening.
- adhesive with brush to apply it to the bag if needed.
- a deodorant for a non-odor proof colostomy bag.

# Changing an ostomy appliance

- Intervention - procedure:
- Explain the procedure to the patient and/or family member.
- Communicate acceptance and support of the patient.
- Provide privacy, preferably in the bathroom, where the patient can learn to care for his/her ostomy as he/she would at home.
- Assist the patient to a comfortable position, either sitting or lying, and expose only the stoma area.
- Unfasten the belt and check the method of adhesion.
- Empty the effluent in the pouch.

# Changing an ostomy appliance

- Remove the appliance, peeling the bag off slowly while holding the patient's skin taut.
- Cleanse the peristomal skin and stoma with warm water and soap.
- Dry the area thoroughly by patting with a towel.  
Rationale: Excessive rubbing may abrade the skin.
- Place a piece of tissue or gauze pad over the stoma. Rationale: Any seepage from the stoma will be absorbed in the tissue or gauze pad.

# Changing an ostomy appliance

- Check the fit of the appliance. Measure the size of the guidestrip. Rationale: Close fit of the barrier (faceplate) prevents contact of skin with effluent.
  - Discard or cleanse the bag. Measure the effluent if ordered.
  - Wash soiled belt with warm water and mild soap, rinse, and dry.
  - Remove and discard gloves; wash hands.
  - Document in patient's record.
- condition of stoma and peristomal skin
- patient's response
- amount, color, and consistency of drainage



# Changing an ostomy appliance

Evaluation: Expected outcomes of the procedure include:

- stoma of a healthy color
- normal peristomal skin without signs of redness or irritation
- the appliance fits snugly and allows no leakage
- patient participation is at the appropriate level

# Nursing management

A person who has a stoma may require nursing assistance in several major areas:

- psychosocial factors
- stoma and skin care
- nutrition and bowel regulation - The diet for the ostomy patient is individualized and depends on various factors, including his/her previous dietary habits and general health status
- the return to optimal health and well-being

# Nursing management

- Assessing – history, physical examination of abdomen, rectum, anus, inspecting faeces; review data from diagnostic tests
- Diagnosing – NANDA diagnosis include:
  - Bowel incontinence
  - Constipation
  - Risk for constipation
  - Perceived constipation
  - Diarrhoea

# Nursing management

- Diagnosing  feacal elimination problems may affect other areas e.g
- Risk for deficient fluid volume deficit related to prolonged diarrhoea, abnormal fluid loss through ostomy
- Risk for impaired skin integrity related to prolonged diarrhoea, bowel incontinence, bowel diversion ostomy
- Low self esteem related to ostomy, feacal incontinence, need for assistance with toileting
- Deficient knowledge related to lack of previous knowledge
- Anxiety related to lack of control of elimination, response of others to ostomy

# Nursing management

- Planning – goals are:
  - Maintain or restore normal bowel elimination pattern
  - Maintain or regain normal stool consistency
  - Prevent associated risks e.g fluid imbalance, skin breakdown

# Nursing management

- Implementing
  - Promoting regular defecation
  - Privacy
  - Timing
  - Nutrition and fluids
    - For constipation – increase fluid intake, fiber diet
    - For diarrhoea – encourage oral fluids, eating small amounts, avoid highly spiced foods
    - For flatulence – limited carbonated beverages, avoid gas-forming foods e.g cabbage, beans, onions
  - Exercise – regular exercise helps develop a regular defecation pattern

# Nursing management

- Positioning
- Medications
- Administering enemas –
  - cleansing enema – to remove feces
  - Carminative enemas – to expel flatus
  - Retention enema – introduces oil or medication into the rectum.
  - Return – flow enema – used occasionally to expel flatus

# Nursing management

- Evaluation – the goals established during the planning phase are evaluated.

Prior to discharge from the hospital, the patient and/or a family member should be able to:

- identify all necessary equipment and supplies and where these can be obtained.
- perform skin and stoma care.
- change the ostomy appliance.
- state signs of complications and when to seek medical attention.
- discuss the importance of nutrition.
- identify ostomy groups, enterostomal therapists, home health agencies, suppliers.



# Haemovigilance

should include:

- Promoting the appropriate use of blood and blood components/products.
- Provision and organisation of education and training relevant to staff involved in the transfusion process.
- Co-ordination, collection and reporting to the NHO of serious adverse reactions/events relating to blood transfusion.
- The tracing and recall of blood and blood components as requested by the BTS.
- Participation in an active hospital transfusion committee.
- Review and audit of all aspects of the transfusion process.

**VENEPUNCTURE**

# VENEPUNCTURE

This is a procedure in which a cannula is inserted into the vein.

## PURPOSE

- To withdraw or transfuse blood and its components
- To establish venous access in critical illness
- To manage fluid and electrolyte imbalance

**INTRAVENOUS  
FLUID  
ADMINISTRATION**

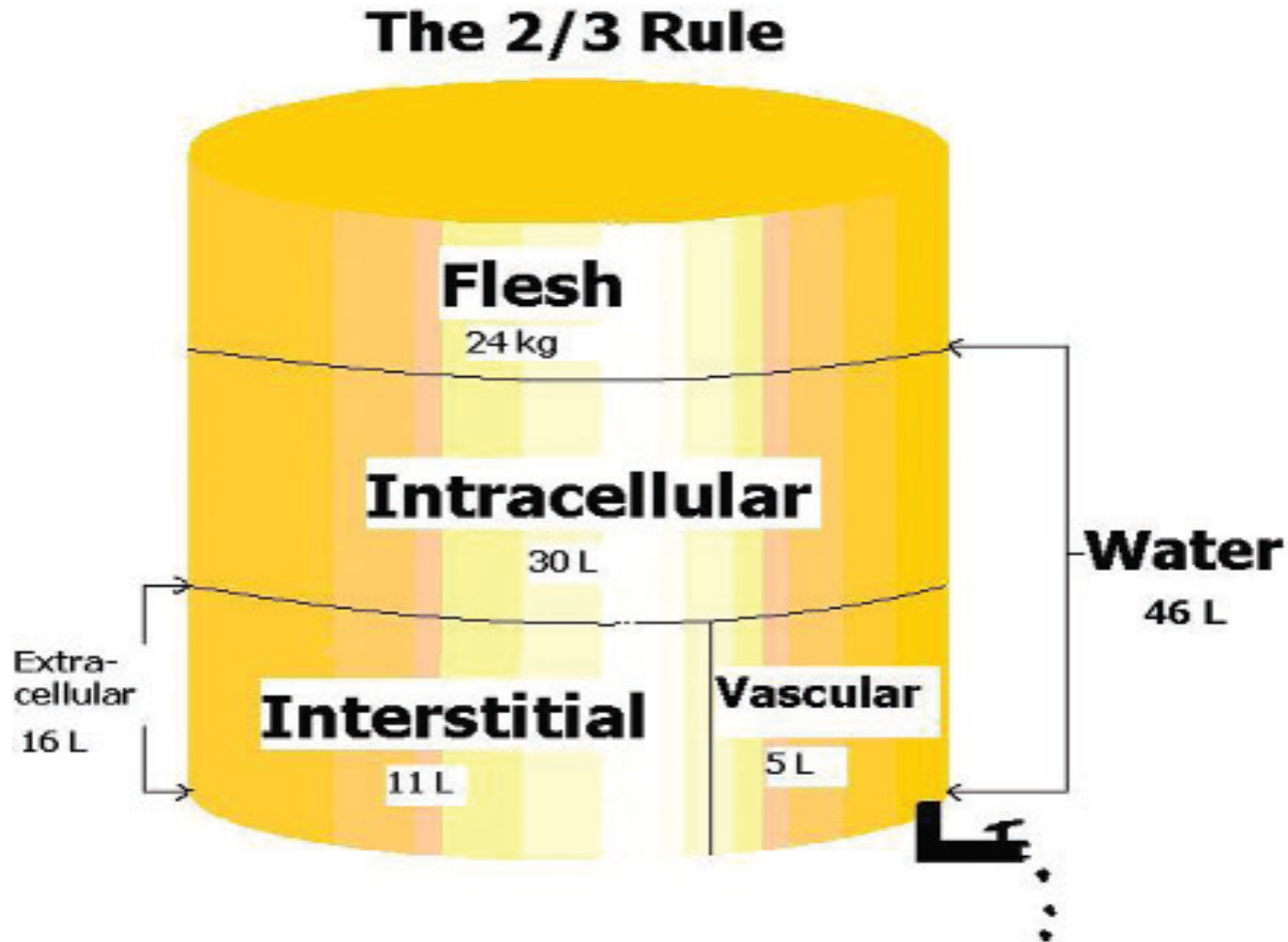
# INTRAVENOUS FLUIDS

- Intravenous fluids are chemically prepared solutions that are administered to the patient.
- They are tailored to the body's needs and used to replace lost fluid and/or aid in the delivery of IV medications.
- For patients that do not require immediate fluid or drug therapy, the continuous delivery of a small amount of IV fluid can be used to keep a vein patent for future use.

# INTRAVENOUS FLUIDS

- The goal of intravenous fluid (IV) administration is to carefully achieve and maintain a euvolemic and isotonic environment within the body as well as to provide for a variety of nutritional and pharmacologic interventions.

# The distribution of body water within a euvolemic 70 kg person.



# Potential Sources of Fluid Excess or Loss in Hospitalized Patients

## Intake

- Intravenous fluids
- Medications given via IV drip
- Water flushes given with crushed medications
- Water flushes to keep tubes patent
- Water contained in tube feedings or TPN



# Potential Sources of Fluid Excess or Loss in Hospitalized Patients

## Output

- Stool/Urine
  - Chest tubes
  - Percutaneous drains
    - Biliary /Pancreatic
  - Wound drainage
  - Ostomies
  - Naso/oro gastric tube suction
  - Excessive drooling/sialorrhea
- Fistulas
    - Enterocutaneous
    - Spit fistulas
  - Insensible losses
  - Accelerated insensible losses including:
    - Burns
    - Tracheostomies
    - Fever

# FORMS OF IV FLUIDS

IV fluids come in four different forms:

☐ Colloids - contain solutes in the form of large proteins or other similarly sized molecules. are useful in maintaining blood volume, but their use in the field is limited. Colloids are expensive, have specific storage requirements, and have a short shelf life. Commonly used colloid solutions include plasma protein fraction, salt poor albumin, dextran, and hetastarch.

# FORMS OF IV FLUIDS

- Crystalloids are the primary fluid used for prehospital IV therapy. Crystalloids contain electrolytes (e.g., sodium, potassium, calcium, chloride) but lack the large proteins and molecules found in colloids. Crystalloids come in many preparations and are classified according to their “tonicity.” Depending on their concentration, crystalloids can affect the distribution of water within the body.

# FORMS OF IV FLUIDS

- Isotonic crystalloids have a tonicity equal to the body plasma. When administered to a normally hydrated patient, isotonic crystalloids do not cause a significant shift of water between the blood vessels and the cells. Thus, there is no (or minimal) osmosis occurring.

The most common isotonic solutions used in prehospital care are

- Lactated Ringer's (LR) contains sodium chloride, potassium chloride, calcium chloride, and sodium lactate in sterile water.
- Normal saline solution (NSS) contains 0.9% sodium chloride (salt) in sterile water.
- 5% Dextrose in water (D5W) is packaged as an isotonic carbohydrate that contains glucose as the solute. D5W is useful in keeping a vein patent and/or supplying glucose, which is used by the cells to create energy.

# FORMS OF IV FLUIDS

Hypertonic crystalloids have a tonicity higher than the body plasma. The administration of a hypertonic crystalloid causes water to shift from the extravascular spaces into the bloodstream, increasing the intravascular volume.

Examples include 3% sodium chloride (3% NaCl), with 513 mEq/L of NaCl, and 5% NaCl(5% NaCl), with 855 mEq/L of sodium and chloride, 50% dextrose in water (D<sub>50</sub>W), a highly concentrated sugar solution.

# FORMS OF IV FLUIDS

- Hypotonic crystalloids have a tonicity lower than the body plasma. The administration of a hypotonic crystalloid causes water to shift from the intravascular space to the extravascular space, and eventually into the tissue cells.
- Types of hypotonic fluids include 0.45% sodium chloride (0.45% NaCl), 0.33% sodium chloride, 0.2% sodium chloride, and 2.5% dextrose in water.

# FORMS OF IV FLUIDS

- Blood and blood products are the most desirable fluids for replacement. Unlike colloids and crystalloids, the hemoglobin carries oxygen to the cells.
- Not only is the intravascular volume increased, but the fluid administered can also transport oxygen to the cells.
- Blood, however, is a precious commodity and must be conserved to benefit the people most in need.

# FORMS OF IV FLUIDS

- Oxygen-carrying solutions are synthetic fluids that carry and deliver oxygen to the cells.
- These fluids, which remain experimental, show promise for the prehospital care of patients who have experienced severe blood loss or are otherwise suffering from hypovolemia.
- It is hoped that oxygen-carrying solutions will be similar to crystalloid solutions in cost, storage capability, and ease of administration, and be capable of carrying oxygen, which presently can only be accomplished by blood or blood products.



# CALCULATION OF RATE

Total Volume To Be Infused X Drop Factor (15)

Total hours x 60 minutes

1 ml = 15 drops

Example

If 1000ml of 5% D/w is to run for 24 hrs, how many drops per minutes should it run?

1000 ml. x 15 gtt/ml. = 10 gtt/min

24 x 60 min.

# ADVERSE EFFECTS

- Infection - Any break in the skin carries a risk of infection.
- Phlebitis - inflammation of a vein that may be caused by infection, the mere presence of a foreign body (the IV catheter) or the fluids or medication being given.
- Infiltration / Extravasation Infiltration occurs when an IV fluid or medication accidentally enters the surrounding tissue rather than the vein.
- Fluid overload This occurs when fluids are given at a higher rate or in a larger volume than the system can absorb or excrete.

# ADVERSE EFFECTS

- Hypothermia The human body is at risk of accidentally induced hypothermia when large amounts of cold fluids are infused. Rapid temperature changes in the heart may precipitate ventricular fibrillation.
- Electrolyte imbalance - Administering a too-dilute or too-concentrated solution can disrupt the patient's balance of sodium, potassium, magnesium, and other electrolytes.
- Embolism - A blood clot or other solid mass, as well as an air bubble, can be delivered into the circulation through an IV and end up blocking a vessel. Peripheral IVs have a low risk of embolism, since large solid masses cannot travel through a narrow catheter, and it is nearly impossible to inject air through a peripheral IV at a dangerous rate. The risk is greater with a central IV. Air bubbles of less than 30 microliters are thought to dissolve into the circulation harmlessly.

# Role of the nurse in IV fluid administration

- Be familiar with the type of fluid being administered, the rate and duration of the infusion, the fluid's effects on the body, and potential adverse reactions.
- Monitor the patient's response to treatment, watching closely for any signs and symptoms of hypervolemia or hypovolemia.
- Monitor lab values to assess kidney function and fluid status.
- Regularly check the venous access site for signs of infiltration, inflammation, infection, or thrombosis.
- Educate the patient and the family about the prescribed therapy, including potential complications and symptoms that require immediate attention.

# NURSING DIAGNOSIS RELATING TO FLUID AND ACID [?] BASE BALANCE

## NANDA Diagnosis

- Deficient fluid volume
- Excess fluid volume
- Risk for imbalanced fluid volume
- Risk for deficient fluid volume
- Impaired gas exchange

May be aetiology of other nursing diagnosis

- Impaired oral mucous membrane related to fluid volume deficit
- Impaired skin integrity related to dehydration
- Ineffective tissue perfusion related to decreased cardiac output secondary to fluid volume deficit or oedema

# NURSING CARE PLAN

## ASSESSMENT

Meryl, a 27 year old business woman reports weakness, malaise, and flu-like symptoms for 3 days. She is thirsty, unable to tolerate fluids because of nausea and vomiting and she is passing watery stools 4-6 times a day.

On physical examination, she is 160 cm tall, weighs 66.2Kg, Temp – 38.3, PR – 106/min, RR- 24/min, BP – 95/55mmHg, urine output 20ml/hr, dry oral mucosa, furrowed tongue, cracked lips.

Diagnostic data – urine specific gravity 1.035, serum sodium 155mEq/L, Serum potassium 2.2mEq/L, Chest X-ray – Negative.

# NURSING CARE PLAN

## DIAGNOSIS

- Deficient fluid volume related to nausea and vomiting and diarrhoea as evidenced by decreased urine output, increased urine concentration, fever, decreased skin turgor, dry mucous membranes, increased pulse rate and decreased blood pressure.

# NURSING CARE PLAN

## DESIRED OUTCOMES/ INDICATORS

- Electrolyte and acid/base balance as evidenced by not compromised serum electrolytes within normal limits.
- Fluid balance as evidenced by maintaining urine output  $>1300$ mls per day, maintaining BP, PR, RR, Temp; Explains measures that can be taken to treat or prevent fluid volume loss.



# NURSING CARE PLAN

## NURSING INTERVENTION

### Electrolyte management (Hypokalaemia)

- Obtain specimens for analysis of altered potassium levels – urine and serum analysis provides information about extracellular levels of potassium.

### Electrolyte management (Hypernatemia)

- Provide frequent oral hygiene – oral mucous membranes become dry and sticky due to loss of fluid in the interstitial spaces.

### Fluid management

- Weigh daily and monitor trends – weight helps to assess fluid balance.

# NURSING CARE PLAN

## EVALUATION

MerylIn remained hospitalised for 48 hours. She required fluid replacement of a total of 5L. Her BP increased to 120/70mmHg, PR – 74/min, RR 14/min at rest. Her urine output increased and she was able to take oral fluids. She was able to discuss symptoms of deficient fluid volume that would necessitate her calling a health professional.

# CRITICAL THINKING

- Meryln is responding appropriately to questions. What would you do?
- Offer suggestions for ways to help Meryln increase her oral intake.
- Meryln asks why you weigh her every morning. How do you respond?

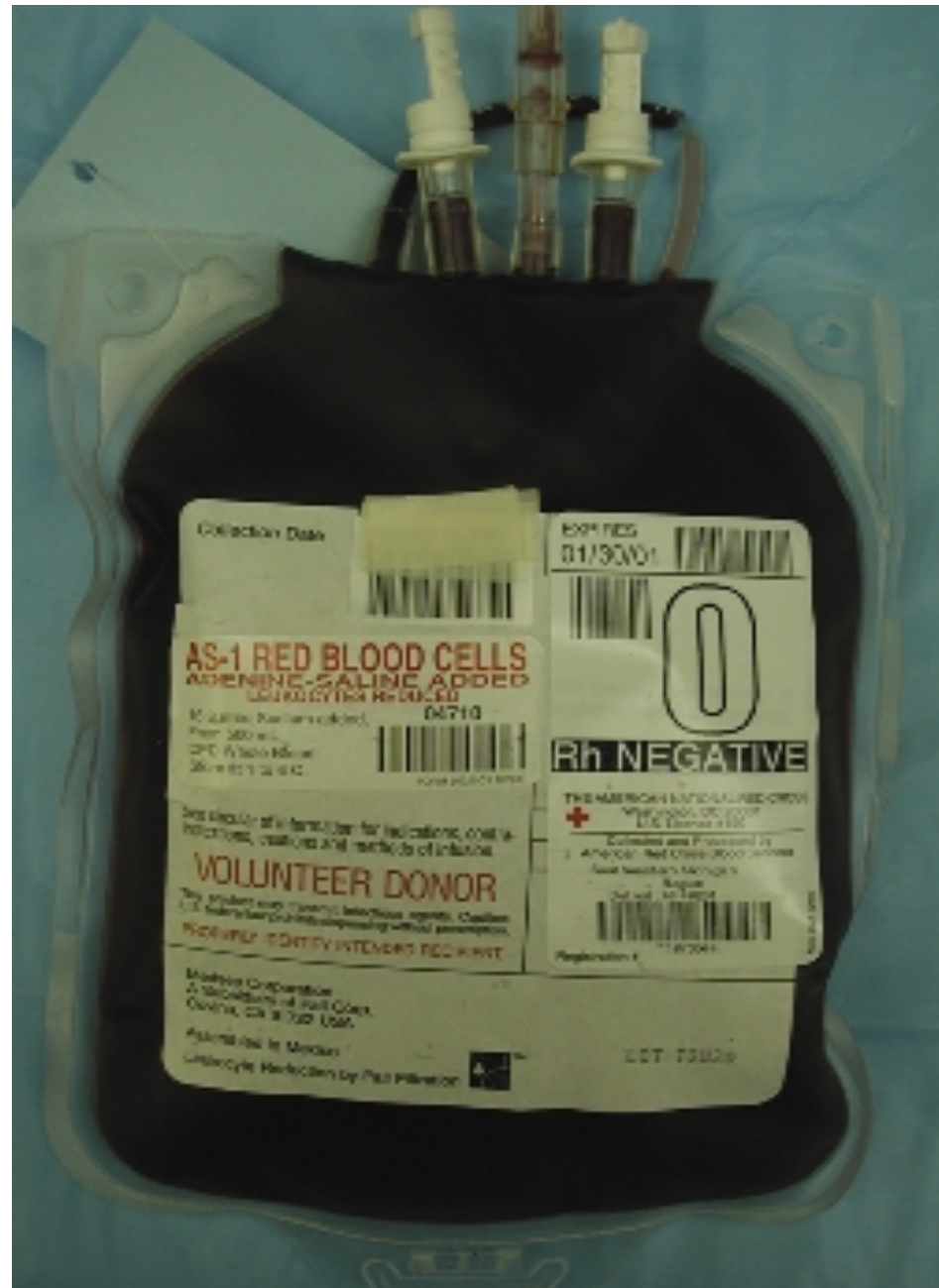
# BLOOD TRANSFUSION

# Blood transfusion

- The transfusion process is complex, involving many interlinking chains of events, and a multidisciplinary group of health professionals with different levels of awareness and understanding of transfusion practice.
- The role of the Transfusion Nurse is evolving as an integral part of efforts to optimise appropriate use of blood components, reduce procedural risks and improve transfusion practice generally.

The Principle Aims of Blood Transfusion are to:-

- (1) Improve oxygen carrying capacity of blood.
  - (2) Symptomatic improvement.
  - (3) Reduce hypovolaemia.
- 1 UNIT of Blood should increase the Hb by approx. 1g/dL.
  - If no improvement or reduction in Hb – think about ongoing blood loss or destruction.
  - You need treat the underlying cause.



# Blood transfusion

- Blood should only be stored in the blood fridge, never in a domestic or drug fridge.
- Remember that you must fill in the laboratory register when removing red cells from a blood bank fridge. Put the date and time of removal and your initials along side the unit number you are collecting.
- Patients should be transfused in an area they can readily be observed,

# BLOOD TRANSFUSION

## Purpose

- To counteract severe hemorrhage and replace the blood loss.
- To prevent circulatory failure in operation where blood loss is considerable, such as in rectal resection hysterectomy and arterial surgery.
- In severe burns to make up for blood lost by burning but only after plasma and electrolytes have been replaced.
- For treatment of severe anemia due to cancer, marrow aplasia and similar conditions.
- To provide clotting factors normally present in blood, which may be absent as a result of disease.



# BLOOD TRANSFUSION

## BLOOD PRODUCTS AVAILABLE

- Whole blood – 450 mls, in cases of acute haemorrhage
- Packed cells – 200 mls, used to increase oxygen-carrying capacity in anaemias, surgery
- FFP – 150 mls, expands blood volume and provides clotting factors
- Platelets – 50 mls, replaces platelets
- Clotting factors and Cryoprecipitate – 50 mls, for clotting factors deficiencies

# BLOOD TRANSFUSION

## ADMINISTRATION

- Packed cells – should not hang more than 4 hours
- Platelet concentration – administer as quickly as possible but within not more than 30 minutes. Collect one at a time. 150 – 280 micron filter Y type must be used.
- FFP – administer as quickly as possible but within less than 4 hours
- Cryoprecipitate – administer as quickly as possible but within not more than four hours.

Directly transfuse all blood products and heparin lock must be removed.

# BLOOD TRANSFUSION

## RECOMMENDED GAUGE

- Adults – 18 – 20
- Paediatric – 22 – 24
- Neonate – 24 - 26

# Indications for Blood Transfusion

## Acute Anaemia

- (1) Symptomatic hypovolaemia and blood loss.
- (2) Peri-operative – ‘replacing losses’
- (3) Haemolysis (treat the underlying cause)
- (4) Severe, critical illness.

# Indications for blood transfusion

- Whole blood: blood loss  $> 1500\text{ml}$ ,
- PRBC: blood loss  $< 1000\text{ml}$ .
- FFP: deficiency of coagulation factor and protein, massive transfusion.
- PLT: thrombocytopenia, massive transfusion.

# Administering blood transfusion

## Pre-transfusion checks

- Is the transfusion prescribed appropriately?
- Why does the patient need a transfusion?
- Have any accompanying medications e.g. Frusemide, been prescribed?
- Are there any special requirements e.g. Gamma Irradiation?
- Check the patient has venous access. Is it patent and intact?
- Will a second checker be available?
- Ensure the patient is positioned so they can be closely observed when the transfusion is taking place.
- Does the patient understand the procedure?
- Have they given their consent?

# Administering blood transfusion

## Equipment

- A blood giving set should be used to administer blood
- Blood giving sets differ from regular giving sets in that they have a double chamber and an integral mesh filter. This is to prevent micro thrombi from being infused into the patient.
- As with any sterile device you must check the expiry date and that the packaging is intact
- Non-sterile Gloves and an apron

# Administering blood transfusion

## Bed side checking

- Checking must take place at the patients bedside
- Bedside checking is the last chance to prevent an error
- Most local policies state that blood should be independently checked by two trained members of staff
- Only check blood or blood products for one patient at a time
- If you are interrupted in the checking procedure you must start again



# Administering blood transfusion

- Check the full name, date of birth and hospital number on the patient ID band against the compatibility label
- Check the blood unit number on the compatibility label against the blood unit number on the blood bag label
- Now check the blood group and Rh status of the donor and the blood group and Rh status of the recipient on the blood label match those recorded on the compatibility label. Are the blood groups compatible?

# Administering blood transfusion

- Check the expiry date on the blood bag label
- Observations of vital signs should be carried out immediately before the transfusion is started and should include BP, Temperature, Respirations, Pulse, Oxygen saturations and urine output.
- Ensure clinical staff are available to closely observe the patient

# Administering blood transfusion

- Asepsis and standard precautions must be used throughout
- Wash hands
- Put on non sterile gloves and an apron
- Close the clamp on the giving set to occlude the line

# Administering blood transfusion

## Putting up the blood

- Pull the tabs to expose the outlet port
- insert the spike into the blood component pack outlet
- Squeeze the blood up through the first chamber

## Priming the line

- Run the blood through the giving set so that all air is expelled
- Aseptically attach blood giving set to cannula
- Secure the giving set and cannula with bandaging

# Administering blood transfusion

Ask the patient to observe for and report the following symptoms

- Chest or loin pain
- Feeling unwell
- Shortness of breath
- Rashes
- A restless or anxious feeling
- Abdominal discomfort
- Blood in the urine
- Ensure the patient has access to a call bell

# Administering blood transfusion

- Ensure the blood is being delivered at the correct rate.
- If the blood is transfused too quickly the patient is at risk of becoming overloaded. If the transfusion is delayed there is a risk of haemolysis occurring as the blood warms to room temperature

# Administering blood transfusion

- The patient should be closely observed during the first fifteen minutes of receiving a blood transfusion by a qualified member of staff. This is because a blood reaction is likely to occur with the first few drops.

# Documentation

- First name, surname, DOB, hospital number
- Date, time transfusion started and finished
- Reason for transfusion and consent
- Type of units transfused
- Number of units transfused
- Unit numbers in full
- Outcome of transfusion
- Any adverse reactions



# Role of the nurse

1. Confirm that there is a physician's order and a signed consent from the client.
2. Have two nurses confirm that the client name and ID number, blood type, RH type, and product unit numbers are correct. Check also the expiration date.
3. Make sure the transfusion is started within 30 minutes of arrival at bedside.
4. Maintain asepsis. If possible wear gloves before performing venipuncture, transfusing blood, and when terminating blood and disposing of equipment.

# Some points to remember

- Blood should be transfused within four hours of its removal from storage (there is a risk of bacterial proliferation and red cell metabolism if the blood reaches an ambient temperature for a sustained period of time)
- Never add anything to a blood transfusion
- Blood products are not compatible with dextrose (dextrose 5%) can lyse red blood cells
- Change the giving set at least every twelve hours for a continuing transfusion and on completion of the transfusion
- Used bags stay on the ward for 48hrs (in case of delayed reaction) and then disposed of in a yellow clinical waste bin (in the case of a delayed reaction the lab can use the stalk of donor blood to initiate serological investigation)

# Transfusion reactions

## Adverse reactions

- Acute reactions
- Allergic reaction (mild to anaphylaxis)
- Haemolytic reaction
- Infective shock
- Circulatory overload

## Delayed complications of transfusion

- Delayed haemolysis of transfused red cells
- Transfusion associated graft versus host disease
- Post transfusion purpura
- Iron overload
- Infection e.g. HIV, Hepatitis B, Hepatitis C, Syphilis

# Adverse reactions:

If any of the following occur,

- Increase in temperature by 1° C
- Significant rise or fall in Blood Pressure
- Significant rise in pulse
- Any sign of a reaction

**Stop the transfusion!**

# Adverse reactions:

How to act when patient reacts

- Stop the transfusion
- Maintain venous access (keep the line open with normal saline)
- Check ABC and examine the patient
- Check the ID of the patient (verbally and/or wristband) against ID details on the unit, compatibility form, compatibility label and prescription chart
- Call for senior and specialist help (if it appears life threatening call the resuscitation team)
- Emergency drugs and crash trolley (hydrocortisone, Antihistamine, adrenaline)
- Retain any unfinished infusion and giving set (this will need to go back to the laboratory)
- Close monitoring of vital signs

# Complications of blood transfusion

- Acute/chronic hemolytic reaction.
- Infections.
- Volume overload.
- Transfusion-related acute lung injury.
- Non-hemolytic febrile reaction.
- Urticaria.

# Complications of blood transfusion

- Hypothermia: Will induce arrhythmia. Warming all blood product is absolutely indicated.
- Hypocalcemia (Citrate intoxication): Cardiac depression, aggravated by hepatic disease.
- Hyperkalemia
- Coagulopathy: Dilutional thrombocytopenia and decreased coagulation factor.

# BLOOD TRANSFUSION

Note:

1. Always member to have anti- histamine injection ready in case a patient has reaction from the blood.

2. Be familiar with the most usual symptoms of blood reactions which are:-

Immediate Reaction:

- a) Headache
- b) Backache

c) Chills

d) Pyrexia

e) Rash of the skin (urticaria )

Late Reaction

a) Dyspnea

b) Renal shut down in severe cases

c) Heamaturia

d) Chest pain

e) Rigor (rigidity)



# Nursing Interventions in Transfusion Reaction

Reactions following blood transfusion may occur for various reasons. Patient must be informed that the supply of blood is not completely risk-free but that it has been tested carefully.

Nursing management is directed toward preventing complications and promptly initiating measures to control any complications that occur.

# Nursing Interventions in Transfusion Reaction

The following steps are taken so that a diagnosis may be made regarding the type and severity of the reaction:

- A** The transfusion set is disconnected, but the intravenous line is kept patent with a normal saline solution (0.9%) in case intravenous medication should be needed rapidly.
- A** The blood container and tubing are saved, not discarded. They are sent to blood bank for repeat typing and culture. The identifying tags and numbers are verified.
- A** The symptoms are treated as prescribed and vital signs are monitored.

# Nursing Interventions in Transfusion Reaction

- A** The patient blood is drawn from plasma hemoglobin, culture, and retyping.
- A** A urine sample is collected as soon as possible and sent to laboratory for a hemoglobin determination. Subsequent voiding of urine should be observed.
- A** The blood bank is notified that a suspected transfusion reaction has occurred.
- A** The reaction is documented according to the institution's policy.

# OXYGEN THERAPY

- Oxygen therapy is administration of supplemental oxygen to a patient to prevent or treat hypoxia.
- Hypoxia is a condition in which there is insufficient oxygen to meet the metabolic demands of tissues and cells.

# Signs and symptoms of hypoxia

- Apprehension, anxiety, behavioural changes
- Decreased level of consciousness
- Increased pulse rate
- Increased rate and depth of respiration or irregular respiratory patterns
- Decreased lung sounds
- Use of accessory muscles of respiration
- Pallor, cyanosis
- Increased fatigue
- Dizziness
- Clubbing of nails due to prolonged, chronic hypoxia

# Oxygen safety guidelines

- Oxygen is a medication and should be administered under order.
- An 'oxygen in use' sign must be placed on the client's door and the client's room/ bedside.
- Oxygen delivery systems must be kept away from open flames.
- No smoking in the premises.
- Keep oxygen cylinders secured to avoid falling.
- Check the oxygen level of portable tanks before transporting a client's bedside.

# Oxygen delivery systems

- Nasal cannula: is a simple comfortable device for delivering oxygen to a client.
- The two tips of cannula (1.5cm long) protrude from the centre of the disposable tube and are inserted into the nostrils.
- Oxygen is delivered via the cannula at a flow rate from 1-6 L/min.
- The percentage will vary from
- Advantages



**LOSS,  
GRIEVING AND  
DEATH**

# Terminologies

- Anticipatory grief
- Autopsy
- Bereavement
- Complicated grief
- Dysfunctional grief
- Grief
- Hospice
- Liver mortis
- Loss
- Maturational loss
- Mourning
- Palliative care
- Rigor mortis
- Situational loss
- Uncomplicated grief

# LOSS AND GRIEF

- Loss is an actual or potential situation in which something that is valued is changed, no longer available or gone.
- Grief is the total response to the emotional experience related to loss.
- Bereavement is the subjective response experienced by the surviving loved ones after the death of a person with whom they have shared a significant relationship.
- Mourning is the behavioural process through which grief is eventually resolved or altered. It is often influenced by culture, spiritual beliefs and custom.

# Types of losses

Loss occurs when a valued object is changed or is no longer available.

There are many types of loss, including:

- Actual loss: Death of a loved one, theft of one's property
- Perceived loss: Occurs when a sense of loss is felt by an individual but is not tangible to others
- Physical loss: Loss of an extremity in an accident, scarring from burns, permanent injury
- Psychological loss: Such as a woman feeling inadequate after menopause and resultant infertility

# Types of losses

There are four major categories of loss:

- loss of external objects,
- loss of familiar environment,
- loss of aspects of self,
- loss of significant other.

# Grief

- Grief is a universal, normal response to loss.
- Grief drains people, both emotionally and physically.
- Because grief consumes so much emotional energy, relationships may be impaired and health status may become altered.
- There are different types of grief including uncomplicated (“normal”), dysfunctional, and anticipatory

# Reactions Commonly Experienced During Grief

## Physical

- Loss of appetite
- Weight loss
- Insomnia withdrawal
- Fatigue
- Decreased libido
- Decreased immune
- Nightmares
- Multiple somatic
- Restlessness

## Psychosocial

- Profound sadness
- Helplessness
- Hopelessness
- Denial
- Anger
- Hostility
- Preoccupation with lost object
- Loneliness

## Cognitive

- Inability to concentrate
- Forgetfulness
- Impaired judgment
- Guilt

## Behavioral

- Impulsivity
- Indecisiveness
- Social Distancing

# Types of grief

- Uncomplicated grief is a grief reaction that normally follows a significant loss.  
Uncomplicated grief runs a fairly predictable course that ends with the relinquishing of the lost object and resumption of the previous life.
- Complicated grief is associated with traumatic death such as death by homicide, suicide, or an accident.



# Types of grief

- Although traumatic death does not necessarily predispose the survivor to complications in mourning, survivors suffer emotions of greater intensity than those associated with normal grief.
- When loved ones die violently, the grievers may suffer from traumatic imagery, that is, the reliving the terror of the incident or imagining the feelings of horror felt by the victim.
- Such thoughts, coupled with intense grief, can lead to post-traumatic stress disorder (PTSD).

Symptoms may include:

- Sleep disturbances, such as recurrent, terror-filled nightmares
- Psychological distress
- Chronic anxiety
- Unless this problem is recognized and the survivors are encouraged to express the intense feelings, they will not be able to progress through the normal, adaptive grieving process.

# Types of grief

## Dysfunctional Grief

- Persons experiencing dysfunctional grief do not progress through the stages of overwhelming emotions associated with grief, or they may fail to demonstrate any behaviors commonly associated with grief.
- The person experiencing pathologic grief continues to have strong emotional reactions, does not return to a normal sleep pattern or work routine, usually remains isolated, and has altered eating habits.
- The pathologically grieving person is unable to reestablish a routine.

# Dysfunctional grief

## Observations

- The client fails to grieve
- Avoids visiting the grave and refuses to participate in memorial services
- Becomes recurrently symptomatic during anniversary
- Develops persistent guilt and lowered self esteem
- Continues to search for lost person
- Unable to discuss the deceased with composure
- Relationships with friends and relatives worsen

# Types of grief responses

A normal grief response may be:-

- Abbreviated – brief but genuinely felt
- Anticipatory – experienced in advance of the event.
- Disenfranchised – occurs when a person is not able to acknowledge the loss to other persons e.g suicide, abortion
- Unhealthy/ pathologic/ dysfunctional – may be unresolved or inhibited. It is extended in length and severity

# Factors contributing to unresolved grief

- Ambivalence towards the person
- Perceived need to be brave and in control; fear of losing control in front of others
- Endurance of multiple losses
- Extremely high emotional value invested in the dead person: failure to grieve helps the bereaved avoid the reality of the loss
- Uncertainty about the loss
- Lack of support systems

# Stages of grieving (Kubler-Ross, 1969)

Stage	Behavioural response	Nursing implication
Denial	refuses to believe that loss is happening	Verbally support but do not reinforce denial
Anger	May direct anger at nurse about matters that normally would not bother them	Help understand that anger is a normal response
Bargaining	Seeks to bargain to avoid loss	Listen attentively and allow client to talk. Spiritual support
Depression	Grieves over what has happened and what cannot be. May talk freely or withdraw	Allow client to express sadness. Communicate nonverbally by sitting quietly without expecting conversation. Touch.
Acceptance	Comes in terms with loss. Decreased interest in surrounding and support people. Begin making plans	Help family understand client's decreased need to socialize. Encourage client to participate in the treatment program

# The stages, popularly known by the acronym DABDA, Invented by C.M. & R.P.

Denial — "I feel fine."; "This can't be happening, not to me." Denial is usually only a temporary defense for the individual.

Anger — "Why me? It's not fair!"; "How can this happen to me?"; "Who is to blame?" Once in the second stage, the individual recognizes that denial cannot continue.

Bargaining — "I'll do anything for a few more years."; "I will give my life savings if..."  
The third stage involves the hope that the individual can somehow postpone or delay death.

# The stages, popularly known by the acronym DABDA, Invented by C.M. & R.P.

Depression — "I'm so sad, why bother with anything?"; "I'm going to die soon so what's the point... What's the point?"; "I miss my loved one, why go on?"

During the fourth stage, the dying person begins to understand the certainty of death. Because of this, the individual may become silent, refuse visitors and spend much of the time crying and grieving. This process allows the dying person to disconnect from things of love and affection. It is not recommended to attempt to cheer up an individual who is in this stage. It is an important time for grieving that must be processed.

Acceptance — "It's going to be okay."; "I can't fight it, I may as well prepare for it."

In this last stage, individuals begin to come to terms with their mortality, or that of a loved one, or other tragic event



# Stages of grieving (Engel, 1964)

Stage	Behavioural response
Shock and disbelief	Refuses to accept loss, denies emotionally
Developing awareness	Reality of loss begins to penetrate consciousness
Restitution	Conducts rituals of mourning
Resolving the loss	Attempts to deal with the painful loss.
Idealization	Reminders of lost object evoke fewer feelings of sadness. Reinvests feelings in others
Outcome	Behaviour influenced by several factors e.g. importance of lost object

# Factors affecting loss and grief responses

- Age – affects a person's understanding of and reaction to loss
- Significance of the loss – importance of the lost person, degree of change required because of the loss, beliefs and values
- Culture
- Spiritual beliefs
- Gender
- Socio-economic status – affects the support system available
- Support system
- Cause of loss or death

# Nursing management

- Assessment – history, assessment of personal coping resources, physical assessment
- Diagnosis
  - Anticipatory grieving
  - Dysfunctional grieving
  - Interrupted family processes
  - Impaired adjustments
  - Risk for loneliness related to loss of relationships with others

# Nursing management

- Planning
- Goals for those grieving loss of boy part are to adjust to the changed ability and redirect both physical and emotional energy into rehabilitation.
- Goals for those grieving loss of a loved one are to remember that a person without feeling intense pain and to redirect emotional energy into one's own life and adjust to the actual or impending loss

# Nursing management

- Implementing
  - Effective communication skills
  - Facilitating grief work – explore and respect the client's and family's ethnic, cultural, religious, and personal values in their expressions of grief.
  - Providing emotional support – use silence, presence, acknowledge grief of client's family, offer choices that promote client autonomy

# Nursing management

- Evaluating
  - Evaluating the effectiveness of nursing care is difficult because of the long term nature of life transition.
  - Criteria for evaluation is based on goals set by the client and family.

# DYING AND DEATH

- Death is defined as the cessation of all vital functions of the body including the heartbeat, brain activity (including the brain stem), and breathing. It can arrive unannounced at any time and is not the special province of the very aged.
- Dying is the final portion of the life cycle for all of us. Providing excellent, humane care to patients near the end of life, when curative means are either no longer possible or, no longer desired by the patient, is an essential part of nursing and medicine.

# Concept of death and dying

- The concept of death is developed over time as the person grows, experiences various losses and thinks about concrete and abstract concepts.



# Concept of death and dying

- Death is universal. all living things die.
- Death is inevitable, there is no way of escaping death. Nor is there any way of predicting the exact timing of death - it can occur at anytime.
- Death is irreversible. If a life form is truly dead it cannot be resuscitated or made alive again. Death is final.
- Death involves the cessation of all physiological functions. All signs of life cease.
- Death occurs because of biological reasons and biological death marks the end of our existence.

# Signs of death

- Cessation of breathing
- Cardiac arrest (No pulse)
- Pallor mortis, paleness which happens in the 15–120 minutes after death
- Livor mortis, a settling of the blood in the lower (dependent) portion of the body
- Algor mortis, the reduction in body temperature following death. This is generally a steady decline
- Rigor mortis, the limbs of the corpse become stiff and difficult to move or manipulate
- Decomposition, the reduction into simpler forms of matter, accompanied by a strong, unpleasant odor.

# Signs of death

The official signs of death include the following:

- no pupil reaction to light
- no response of the eyes to caloric (warm or cold) stimulation
- no jaw reflex (the jaw will react like the knee if hit with a reflex hammer)
- no gag reflex (touching the back of the throat induces vomiting)
- no response to pain
- no breathing

# Development of the concept of death

Age	Beliefs/ attitudes
Infancy -5 years	Does not understand, believes death is reversible, a temporary departure or sleep
5 – 9 years	Understands death is final, believes own death can be avoided, associates death with aggression or violence
9 – 12 years	Understands death is inevitable end of life. begins to understand own mortality
12 - 18 years	Fears a lingering death, seldom thinks about death but views it in religious and philosophic terms
18 – 45 years	Has attitude towards death influenced by religious and cultural beliefs
45 – 65 years	Accepts own mortality, encounters death of parents and some peers. Experiences peaks of death anxiety
65+ years	Fears prolonged illness, encounters death of family members and peers, sees death as having multiple meanings

# Legalities related to death

- Advance health care directives – legal documents that allow persons to specify aspects of care they wish to receive should they become unable to make or communicate their preferences.
- Autopsy/ postmortem – performed only in certain cases.
- Certification of death – formal determination/ pronouncement of death must be performed by a physician.

# Legalities related to death

- Do-Not-Resuscitate orders – physicians may order for clients who are in stage of terminal, irreversible illness or expected death.
- Euthanasia (Mercy killing) – the act of painlessly putting to death persons suffering from incurable or distressing disease.
- inquest – legal inquiry into the cause of death.
- Organ donation – people 18+ years may make a gift of all or any part of their bodies for medical/dental education, research, therapy or transplantation

# Nursing management

The nurse will be most successful communicating with families of dying patients if she or he:

- Reinforces interdisciplinary communication
- Ensures that physicians are aware of communication gaps
- Listens as much as speaks
- Acknowledges emotions
- Makes assurances about patient comfort

# Planning care of the dying person

- Schedule time to be available to client.
- Offer to contact clergy.
- Balance the client's need for independence and need for assistance.
- Respect the client's confidentiality.
- Answer all questions and provide factual information to client and family.



# Spiritual needs of the dying:

- Communicating empathy
- Playing music
- Using touch
- Praying with the client
- Contacting the clergy if requested by the client
- Reading religious literature aloud at the client's request

# Meeting the Psychosocial Needs of the Terminally Ill Client

## Anxiety

- A combination of factors contribute - Spend as much time as possible with the dying client.
- To anxiety of the dying client and family: Encourage verbalization of feelings.
- Client's fear of death (and the loss of the known world) - Listen in nonjudgmental manner.
- Caregiver's fear of loss of the loved one - Answer all questions in an honest, factual manner.
- Client's sense of abandonment by the family, friends, and health care providers - Provide explanation of all procedures.
- Loss of independence and social isolation - Encourage family and friends to spend time with client.

# Informing relatives

- It is the responsibility of the senior nurse to contact relatives and ask them if they wish to attend. He/ she should feel confident, knowledgeable and competent to do so and should:
  - give name, title and where he/she is calling from
  - determine the identity of the person to whom you are speaking to
  - explain that the client's condition has worsened

# Informing relatives

- stay calm and speak in a controlled manner
- use short sentences offering small pieces of information
- pause to allow the receiver of the call time to comprehend
- urge the individual to come to the hospital and reassure that care is being given. Ask if they require you to contact any other persons on their behalf such as a priest or other religious leaders
- document time and nature of information given and the name of the recipient(s).

# Helping arriving relatives

Grief reactions may differ:

- be prepared and avoid being judgmental
- words of comfort are often difficult to find; sincerity is generally the best course of action
- active listening is often the best approach as this allows for reminiscing and/or expression of emotions.

# Helping arriving relatives

- Those receiving notification of a sudden unexpected death may show severe emotional reactions.
- Encouraging survivors to view the deceased can seem quite brutal; however, this can help to reinforce the reality of the event and assist subsequent grieving.
- Consider the likely effect of showing personal emotion. It may or may not be appropriate depending upon the circumstances surrounding the actual/impending death.

# Post-mortems

- Post-mortems may only be carried out with written consent of relatives unless the death occurs in suspicious circumstances or occurred without prior medical intervention.

# Organ Donation

- The donation of organs for transplantation is a matter that requires compassion and sensitivity from the caregivers.
  - Health care institutions are required to have policies related to the referral of potential donors to organ procurement agencies.
  - It is important that families of the deceased know the importance of and process for organ donation.
- The following organs and tissues are used for transplantation:
    - • Kidneys
    - • Heart
    - • Lungs
    - • Liver
    - • Pancreas
    - • Skin
    - • Corneas
    - • Bones (long bones and middle ear bones)



# Accounting for valuables

- Be aware of local policy.
- All valuables should be identified, accounted for and sent for safe-keeping as soon as is reasonably practical, in keeping with local policy.
- Any jewellery left on the deceased should be taped, and details noted on the appropriate documentation.
- A second responsible person should always be called on as witness when accounting for client property whether the client is deceased or otherwise.

# Accounting for valuables

- No valuables or other client property should be given to relatives prior to full documentation and a signature of receipt should be obtained.
- It is usual to ask relatives to collect the deceased's belongings when they come to collect the Medical Certificate of Death. This allows time to parcel the property more appropriately and thus reduce the potential for further distress.

# Last Offices

- Last Offices means 'caring for the body after death'. It is the final expression of caring a nurse can undertake for their client.
- It is also essential to maintaining a safe environment and ensuring safe passage of the body.

# Last Offices

- Specific needs in relation to Last Offices can vary according to the client's cultural and religious practices. It is therefore important to elicit the wishes of the client and of the relatives prior to death if at all possible, and to make sure that these wishes are clearly documented in the client's records and adhered to.
- Two staff working quietly together should normally undertake this procedure, paying due regard to legal requirements including health and safety issues as appropriate
- it is advisable to perform Last Offices prior to Rigor mortis occurring, as movement and positioning will otherwise be impossible.

# Equipment

- Wash bowl
- Soap and towel(s)
- Disposable wipes
- Shaving materials as required (electric shaving is preferable to avoid damage to the skin)
- Toothbrush/toothpaste/oral hygiene pack
- Brush/comb
- Spigots and/or clamps (if necessary)
- Adhesive tape
- Occlusive tape and wound dressings if required
- Disposable gloves and aprons
- Clinical waste bag
- Clean linen and laundry skip
- Shroud or clean attire in keeping with deceased's/relatives' cultural/religious preferences
- Property book and envelope for valuables
- Legal documents; care records, medical notes, identification bands, death labels, notification-of-death forms
- Body bag if required (see special precautions)

# Hospice Care

- Hospice, a type of care for the terminally ill, is founded on the concept of allowing individuals to die with dignity and be surrounded by those who love them.

# HEALTH ASSESSMENT

Accurate diagnosis rests firmly upon the foundation of a thoughtful and inclusive history and a competently performed physical examination.



# Health Assessment

1. Part of Nursing Process
2. Nurses use physical assessment skills to:
  - a) Develop (obtain baseline data) and expand the data base from which subsequent phases of the nursing process can evolve
  - b) To identify and manage a variety of patient problems (actual and potential)
  - c) Evaluate the effectiveness of nursing care
  - d) Enhance the nurse-patient relationship
  - e) Make clinical judgments

**HISTORY**

**TAKING**

# Definition of Health History

Systematic collection of **subjective** data which stated with client, and **objective** data which observed by the nurse.



# History taking

- Good history taking is an important first step in treating the patient. Each person will develop their own style and technique, but a good interview will likely include the basic elements discussed below.
- Remember you are treating a patient, not their condition. The better you understand your patient, the better your treatment plan will be and the more likely you will be to get good patient compliance.

# History taking

- History taking is a key component of patient assessment, enabling the delivery of high-quality care.
- Understanding the complexity and processes involved in history taking allows nurses to gain a better understanding of patients' problems.
- Care priorities can be identified and the most appropriate interventions commenced to optimize patient outcomes.

# Specific goals

- Gather, synthesize, organize and communicate “data” effectively
- Build differential diagnoses
- Actively participate in patient care

# Phases of taking health history

Two phases:-

- The interview phase
- The recording phase

# Guidelines for Taking Nursing History

- Private, comfortable, and quiet environment.
- Allow the client to state problems and expectations for the interview.
- orient the client the structure, purposes, and expectations of the history.



# Guidelines for Taking Nursing History cont..

- Communicate and negotiate priorities with the client
- Listen more than talk.
- Observe non verbal communications e.g. "body language, voice tone, and appearance".

## Guidelines for Taking Nursing History cont..

- Review information about past health history before starting interview.
- Balance between allowing a client to talk in an unstructured manner and the need to structure requested information.
- Clarify the client's definitions (terms & descriptors)

## Guidelines for Taking Nursing History cont..

- Avoid yes or no question (when detailed information is desired).
- Write adequate notes and record soon after interview.

# Types of Nursing Health History

- **Complete health history:** taken on initial visits to health care facilities.
- **Interval health history:** collect information in visits following the initial data base is collected.
- **Problem- focused** health history: collect data about a specific problem

# The Setting:

- The setting is important because it creates the environment in which you and the patient must interact.
- The environment will greatly influence how comfortable the patient feels during the process and how complete and informative the patient's answers will be. It is normal to expect patients to experience some degree of anxiety during an initial interview.

# The Setting:

- Check your seating position – make sure your seating is no higher than eye level. Patients are very uncomfortable having to look up while talking and are actually most comfortable while looking slightly down.
- Be aware of your body language – avoid body positions that are defensive or withdrawn.
- Be aware of eye contact, too much and too little are both bad. Watch your vocabulary – don't overwhelm the patient with highly technical terminology they don't understand; at the same time, don't talk down to the patient.
- Lastly, a warm hand shake is a very comforting gesture towards a new patient and it's also a nice way to conclude the visit.

# The Setting:

- Respect for the patient as an individual is an important feature of assessment, and this includes consideration of beliefs and values and the ability to remain non-judgmental and professional.
- Respect also involves maintenance of privacy and dignity; the environment should be private, quiet and ideally, there should be no interruptions. When this is not possible the nurse should do everything possible to ensure that patient confidentiality is maintained.





# INTRODUCTION

Start by putting the patient at ease:

- Greet the patient by name: "Good morning, Mrs / Mr....."
- Introduce yourself and explain that you are a nursing student.
- Shake the patient's hand, or if they are unwell rest your hand on theirs.
- Ensure that the patient is comfortable.

# Patient Rapport

# Patient Rapport – Setting the Stage

- If a patient's chart is available, review it before interviewing the patient.
- Use this information to gain clues about the patient.

# Patient Rapport – The First Impression

- Present yourself as a caring, competent, and confident health care professional.

# Patient Rapport – Building Trust

- When you introduce yourself to the patient, shaking hands or offering a comforting touch will help build trust.

# Patient Rapport – Asking Questions

- Use a combination of open-ended and closed-ended questions.

# Patient Rapport – Language and Communication

- Use appropriate language.
- Use an appropriate level of questioning, but do not appear patronizing.
- When encountering communication barriers, try to enlist someone to help.
- Actively listen.

# Patient Rapport – Active Listening

- Facilitation
- Reflection
- Clarification
- Empathy
- Confrontation
- Interpretation
- Asking about feelings



# Patient Rapport – Sensitive Topics

- One must learn to become comfortable dealing with sensitive topics.
- It is important to earn a patient's trust.

# The Comprehensive Patient History

Wash Hands

Introduce self, check patient details

Obtain permission

Expose patient (examination only)

Right-hand side of bed (examination only)

# Standard history taking

## Personal history

- a. Age
- b. Occupation
- c. Sex
- d. Height / Weight
- e. Marital / Family status

- i. Children

## Chief complaint (CC) or Presenting complaint

- a. Why is the patient seeking care?
- b. What other problems concern the patient?

# Standard history taking

## History of present illness

- a. Location and radiation of complaint
- b. Severity of complaint
- c. Timing of onset
- d. Situation (setting) of onset
- e. Duration of complaint
- f. Previous similar complaints
- g. Exacerbating and relieving factors
- h. Associated symptoms
- i. Patient's explanation of complaint

# The Chief Complaint

- This is the pain, discomfort, dysfunction that caused the patient to request help.

# The Present Illness

## OPQRST-ASPN

- Onset of the problem
- Provocative/  
Palliative factors
- Quality
- Region/Radiation
- Severity
- Time
- Associated  
Symptoms
- Pertinent Negatives

# History of presenting complaint

- If the history of the presenting complaint includes pain, ask about it using the mnemonic SOCRATES
- **S**ite - where exactly is this pain?
- **O**nset - when did the pain start, did it start suddenly or gradually?
- **C**haracter - describe the pain - sharp? knife-like? gripping? vice-like? burning? crushing?
- **R**adiation - does the pain spread anywhere? To the arm, groin etc?
- **A**ssociations - is the pain accompanied by any other features?
- **T**iming - does the pain vary in intensity during the day?
- **E**xacerbating and relieving factors - does anything make the pain better or worse?
- **S**everity - does the pain interfere with daily activities or with sleep?



# Standard history taking

## Past medical history

- a. Systematic questioning regarding previous adult illnesses
  - i. Neurological/Psychiatric
  - ii. Eye, ear, nose, throat
  - iii. Skin/Hair/Nails
  - iv. Musculoskeletal
  - v. Cardiovascular/Respiratory
  - vi. Genital-urinary
  - vii. GI tract
- b. Childhood illnesses

- c. Surgeries, injuries or hospital admissions
- d. OB/GYM
  - i. Birth control
  - ii. Pregnancies / Births
  - iii. Menstrual periods
  - iv. Pelvic exams / Pap smears
- e. Psychiatric
- f. Immunizations
- g. Screening tests
- h. Allergies

# Standard history taking

## Family history

- a. Disease history
- b. Parental health
- c. Children's health

## Drug history

- a. Current medications
  - i. Prescription
  - ii. Over-the-counter
- b. Drug allergies

## Lifestyle (social history)

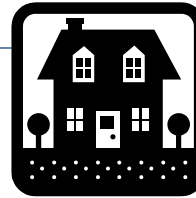
- a. Alcohol
- b. Smoking
- c. Recreational drug use
- d. Sexual life style/orientation
- e. Reproductive status
- f. Occupational issues

# Social History

## Work

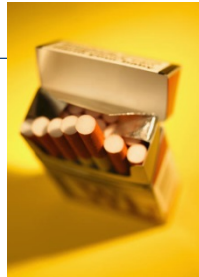
### Home circumstances

- Who lives at home – partner? Children?
- Stairs at home?
- Need help with housework, shopping, cooking?



### Smoking

- Current smoker?
- Past smoker?
- How many years?
- Cigarettes/ roll-ups / cigars?
- How many per day?



### Alcohol

- Do you drink alcohol?
- What? Wine? Beer?
- How much?
- Calculate units/week



# Past History

- General state of health
- Childhood diseases
- Adult diseases
- Psychiatric illnesses
- Accidents or injuries
- Surgeries or hospitalizations

# Questions to ask about previous medical history

General question:

- Have you suffered from any previous illness?

Medical

- Ask about childhood illness and immunization
- Have you had TB or whooping cough?
- Have you ever been found to have high blood pressure?
- Have you had rheumatic fever?
- Have you ever suffered from epileptic seizures?
- Do you get asthma (episodic breathlessness, usually with wheeze)?
- Have you suffered from anxiety or depression?
- Do you have diabetes?

# Surgical

- • Have you had any operations in the past?

# Obstetric (where appropriate)

- Have you had any pregnancies?
- Were they normal?
- Were there any complications such as hypertension and toxemia, diabetes, Caesarian section?

# Current Health Status (1 of 3)

- Current medications
- Allergies
- Tobacco
- Alcohol, drugs, and related substances
- Diet
- Screening tests
- Immunizations



# Current Health Status (2 of 3)

- Sleep patterns
- Exercise and leisure activities
- Environmental hazards
- Use of safety measures
- Family history
- Home situation and significant others
- Daily life

# Current Health Status (3 of 3)

- Important exercises
- Religious beliefs
- The patient's outlook

# Drug history and allergies

- What drugs, homoeopathic and herbal medicines and/or health foods do you take? - and in what dose?
- What other therapies do you have? - Physiotherapy? Occupational therapy? Malaria prophylaxis?
- Do you have any allergies?
- Have any medicines ever upset you?

You should take your patient's medications with you to the hospital, when practical.



# Family history

- Are your father, mother, brothers, sisters alive?
  - If they have died, at what age did he/she/they die? What did he/she/they die of?
- Do they have any current illnesses?
- Do any illnesses run in your family?

# Social history

- Who is at home with you?
- Are you single, married, widowed or divorced?
- Is your partner healthy?

How many children have you got?

- Are your children healthy?
- What is your occupation?
- Do you have any financial worries?
- Do you smoke? - If so, how many per day/week?
- Have you ever smoked? - Why did you give up?
- Do you drink alcohol? - If so, how many units per day/week?

# Systems Review

Couple of questions for each body system e.g:

## CNS(central nervous system)

- Fits, faints, funny turns
- Headaches
- Vision problems

## GI (gastrointestinal system)

- Change in bowel habits – **blood (red flag)**
- Nausea or vomiting
- Weight loss – **red flag**

## CVS (cardiovascular system)

- Chest pain
- “Heart fluttering” (palpitations)
- Ankle swelling

## GU (genitourinary system)

- Change in waterworks
- Blood in urine
- Menstrual problems

## RS(respiratory system)

- Shortness of Breath (SOB)
- Cough – **blood (red flag)**

## Other

- Joint or muscle pain
- Skin rashes
- Lumps or bumps

# Review of systems

## General health

- Wellbeing
- Energy
- Appetite
- Sleep
- Weight change
- Mood/anxiety/stress

## Cardiovascular system

- Chest pain
- Breathlessness
- Palpitations
- Ankle swelling
- Pain in lower leg when walking

## Central nervous system

- Headaches

- Dizziness
- Vertigo
- Sensations
- Fits/faints
- Weakness
- Twitches
- Tinnitus
- Visual disturbance
- Memory and concentration changes

## Endocrine

- Excessive thirst
- Tiredness
- Heat intolerance
- Hair distribution

- Change in appearance of eyes

## Gastrointestinal system

- Dental/gum problems
- Tongue
- Difficulty in swallowing
- Painful swallowing
- Nausea
- Vomiting
- Heartburn
- Colic
- Abdominal pain
- Change in bowel habit
- Colour of stools



# Review of systems

## Genitourinary system

- Pain on urinating
- Blood in urine
- Risk assessment for sexually transmitted infections

## Men

- Hesitancy passing urine
- Frequency of micturition
- Poor urine flow
- Incontinence
- Urethral discharge

- Erectile dysfunction
- Change in libido

## Musculoskeletal

- Joint pain
- Joint stiffness
- Mobility
- Gait
- Falls
- Time of day pain

## Respiratory system

- Shortness of breath
- Cough
- Wheeze
- Sputum

- Blood in sputum
- Pain when breathing

## Women

- Onset of menstruation
- Last menstrual period
- Timing and regularity of periods
- Length of periods
- Type of flow
- Vaginal discharge
- Incontinence
- Pain during sexual intercourse

# Systems Enquiry

Questions to ask patients about their general health:

Cardiovascular and respiratory function

- Do you have a cough?
- Do you cough anything up?
- Have you ever smoked? If so what, how many, and for how long?
- Do you get short of breath?
- Do you wheeze?
- Do you get any chest pain?
- Do your ankles swell?

# Systems Enquiry

## Gastrointestinal function

- Has there been any change in your appetite?
- Has there been any change in your weight?
- Have you suffered from nausea or vomiting?
- Has there been any change in the character or frequency of your bowel movements?
- Has there been any change in the colour or consistency of your stools?
- Have you had any bleeding? - while vomiting (haematemesis) or rectally?

# Systems Enquiry

## Genitourinary function

- How often do you pass urine?
- Do you have pain or burning on passing urine?
- Do you have pain in the small of your back (renal angles)?
- Is there any blood in your urine (haematuria)?
- Do you have any sexual problems?

# Systems Enquiry

## Specific questions for men

- Do you have any penile discharge or venereal infection?
- Do you have any difficulty starting to pass urine (hesitancy or urgency), maintaining the flow of urine (poor stream), or stopping the flow of urine (terminal dribbling)?

# Systems Enquiry

Specific questions for women

- Do you have any vaginal discharge?
- When did your periods start?
- Are your periods irregular?
- How often do your periods occur and for how long do they last?
- Do you have heavy bleeding (menorrhagia) or do you pass clots during your period?
- When did your periods stop (menopause)?
- Have you had any bleeding since your periods stopped?
- How many children have you had and when did you have them?
- Did you have any complications during any pregnancy?

# Systems Enquiry

## Musculoskeletal function

- Have you any weakness in your arms or legs?
- Do you have any stiffness in your joints or spine?
- Do you have pain in your joints or spine?

# Systems Enquiry

## Neurological function

- Do you have any headaches?
- Have you had any blackouts?
- Have you had any fits?
- Have you had any dizziness (feeling of instability or rotation)?
- Do you get ringing in your ears (tinnitus)?
- Do you get abnormal sensations or tingling in your hands or feet (paraesthesia)?
- Have you noticed changes in your sense of hearing, smell, taste, vision?
- Have you any incontinence of urine or stools?
- Do you get depressed?
- Do you get anxious?



# Special Challenges

- Silence
- Overly talkative patients
- Multiple symptoms
- Anxiety
- Depression
- Sexually attractive or seductive patients
- Confusing behaviors or symptoms

# Special Challenges

- Patients needing reassurance
- Anger and hostility
- Intoxication
- Crying
- Limited intelligence
- Language barriers
- Hearing problems
- Blindness
- Talking with families or friends

# Special challenges

- Silence patients:
  - Has meanings (collect thoughts, recall details)
  - Paramedic should stay alert of possible stress or anxiety
  - May result of paramedics lack of sensitivity, understanding or compassion.
- Overly talkative patients:
  - Give patient several minutes
  - Ask yes or no questions
  - Summaries patients comments frequently
  - Refocus the discussion
- Patients with multiple symptoms
  - Some patients have a longer medical history because of age, chronic illness, medications.
  - elder patients may have more than one illness
  - Longer interview and more information

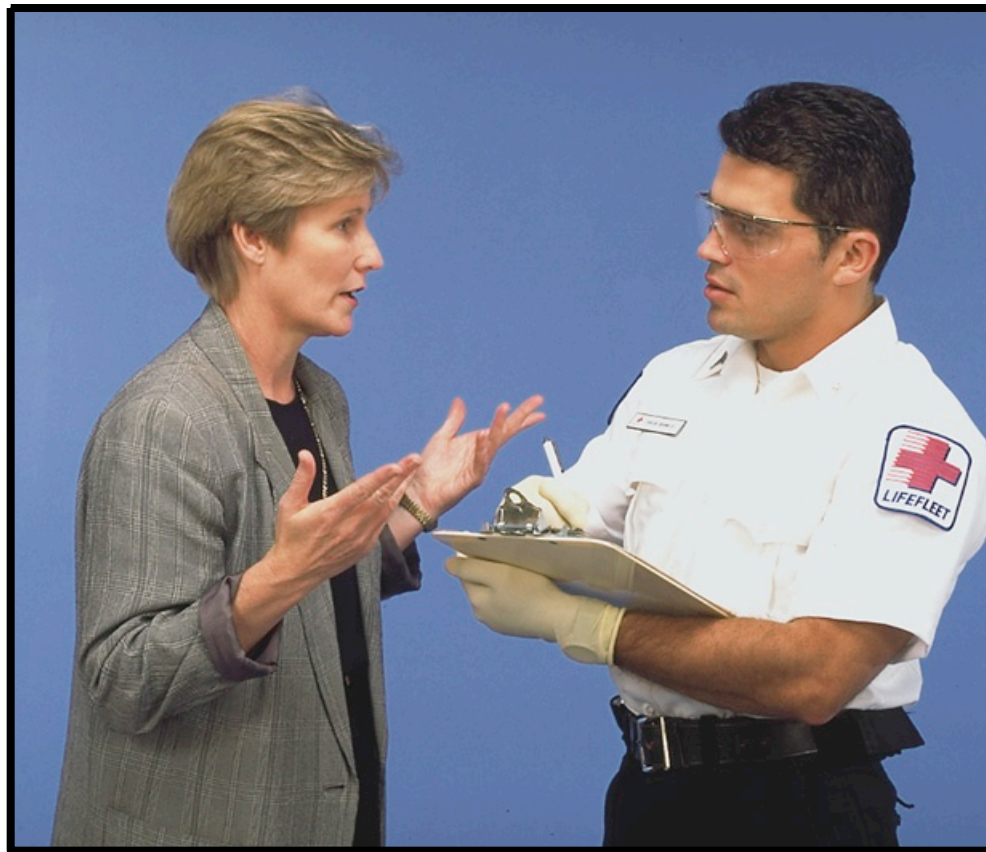
# Special challenges

- **Anxious patients:**
  - It is normal
  - Paramedic must be sensitive and supportive to calm patient and reduce anxiety
  - Anxiety may not relate to illness (e.g. cost of treatment or insurance liabilities)
  - Dealing with depression is similar
- **Anger and hostility**
  - May be expected
  - Personal safety is first
  - Maintain calm, confident manner

# Special challenges

- Intoxication:
  - Manage patient intoxicated with alcohol or drugs with caution
  - No challenge or aggravation
  - Set limit for acceptable behavior
  - Call for law enforcement assistance
- Sexual attractive or seductive patients:
  - Should not affect paramedic job or behavior
  - Set limit to seductive advances
  - Same-sex provider or an extra caregiver is encouraged

If the patient cannot provide useful information, gather it from family or bystanders.



# Case study

- A 28 year old female patient comes to the clinic complaining of abdominal pains since two days ago. You notice the patient has difficulty in walking. She is married with two children aged 2 and 5 years old.
- What other history will you take from her?

# PHYSICAL EXAMINATION



A nurse must have a respect for his/  
her own calling, because God's  
precious gift of life is often literally  
placed in his/ her hands; He/ she  
must be a sound, and close, and  
quick observer.

—Florence Nightingale

# Purposes of physical assessment

Physical assessment of a patient serves many purposes:

1. Screening of general well-being. The findings will serve as baseline information for future assessments.
2. Validation of the complaints that brought the patient to seek health care.
3. Monitoring of current health problems.
4. Formulation of diagnoses and treatments.

# Indications

- Routine assessment
- On admission
- Pre-requisite to planning care

# Role of the Nurse

- The professional nurse plays a vital role in the assessment of patient problems.
- For example, a nurse in primary care may perform a comprehensive physical assessment of patients, while a critical care nurse may conduct selected patient assessments to monitor and evaluate current health problems.
- Nurses are expected to be familiar with and comfortable using physical assessment skills.
- Nurses require information in order to make clinical decisions.

# Measurements

- Body measurements include length or height, weight, and head circumference for children from birth to 36 months of age. Thereafter, body measurements include height and weight.
- The assessment of hearing, speech and vision are also measurements of an individual's function in these areas.
- A patient's measurements can be compared with a standard, expected, or predictable measurement for age and gender. Deviation from standards helps identify significant conditions requiring close monitoring or referral to a physician or pediatric nurse practitioner.

# Procedure

## Handwashing

- The most important infection control practice is handwashing.
- You must begin every physical assessment with a thorough handwash.

# Assessment Techniques:

- Physical assessment findings, or objective data, are obtained through the use of four specific diagnostic techniques: inspection, palpation, percussion, and auscultation.
- Usually, these assessment techniques are performed in this order when body systems are assessed.
- An exception is in the assessment of the abdomen, when auscultation is performed prior to percussion and palpation, as the latter two can alter bowel sounds.
- These four techniques validate information provided by a patient in the health history, or they can verify a suspected physical diagnosis.

# Assessment Techniques:

The order of techniques is as follows (A-D) except for the abdomen where you inspect then auscultate

## A. Inspection - critical observation

1. Take time to — observell with eyes, ears, nose (all senses)
2. Use good lighting
3. Look at color, shape, symmetry, position
4. Odors from skin, breath, wound
5. Develop and use nursing instincts
6. Inspection is done alone and in combination with other assessment techniques



# Assessment Techniques:

## B. Palpation - light and deep touch

1. Back of hand (dorsal aspect) to assess skin temperature
2. Fingers to assess texture, moisture, areas of tenderness
3. Assess size, shape, and consistency of lesions

## C. Percussion - sounds produced by striking body surface

1. Produces different notes depending on underlying mass (dull, resonant, flat, tympani)
2. Used to determine size and shape of underlying structures by establishing their borders and indicates if tissue is air-filled, fluid-filled, or solid

# Assessment Techniques:

- D. Auscultation - listening to sounds produced by the body
  - 1. Direct auscultation – sounds are audible without stethoscope e.g wheeze
  - 2. Indirect auscultation – uses stethoscope
  - 3. Know how to use stethoscope properly (practice)
  - 4. Fine-tune your ears to pick up subtle changes (practice)

# Inspection

- “A conscientious nurse is not necessarily an observing nurse; and life or death may lie with the good observer.” This statement by Florence Nightingale provides inspiration and direction for inspection, which is usually the first assessment technique used during the assessment process.
- Inspection is an ongoing process that you use throughout the entire physical assessment and patient encounter. Inspection is the use of one’s senses of vision and smell to consciously observe the patient.

# Inspection

## Vision

- Use of sight can reveal many facts about a patient.
- The process of visual inspection necessitates full exposure of the body part being
- inspected, adequate overhead lighting.

## Smell

- The nurse's olfactory sense provides vital information about a patient's health status. The patient may have a fruity breath odor characteristic of diabetic ketoacidosis. The classic odor that is emitted by a *Pseudomonas* infection is another well-recognized smell to the experienced nurse.

# Palpation

- The second assessment technique is palpation, which is the act of touching a patient in a therapeutic manner to elicit specific information.
- Prior to palpating a patient, some basic principles need to be observed.
- You should have short fingernails to avoid hurting the patient as well as yourself.
- You should warm your hands prior to placing them on the patient; cold hands can make a patient's muscles tense, which can distort assessment findings.

# Palpation

- Encourage the patient to continue to breathe normally throughout the palpation.
- If pain is experienced during the palpation, discontinue the palpation immediately.
- Most significantly, inform the patient where, when, and how the touch will occur, especially when the patient cannot see what you are doing.

# Palpation

## Order of Assessment Procedures

- A good rule of thumb to follow when sequencing assessment procedures is to progress from the least intrusive to the most intrusive. That is, assessments that may cause discomfort should be performed last whenever possible in order to prevent patient anxiety, fear, and muscle guarding, which could affect the assessment process.

# Palpation

- For example, palpation of a tender area in the abdomen should be performed last. In the pediatric patient, the assessment of the ears and throat is usually performed last because these are the most uncomfortable for the child and may cause crying.



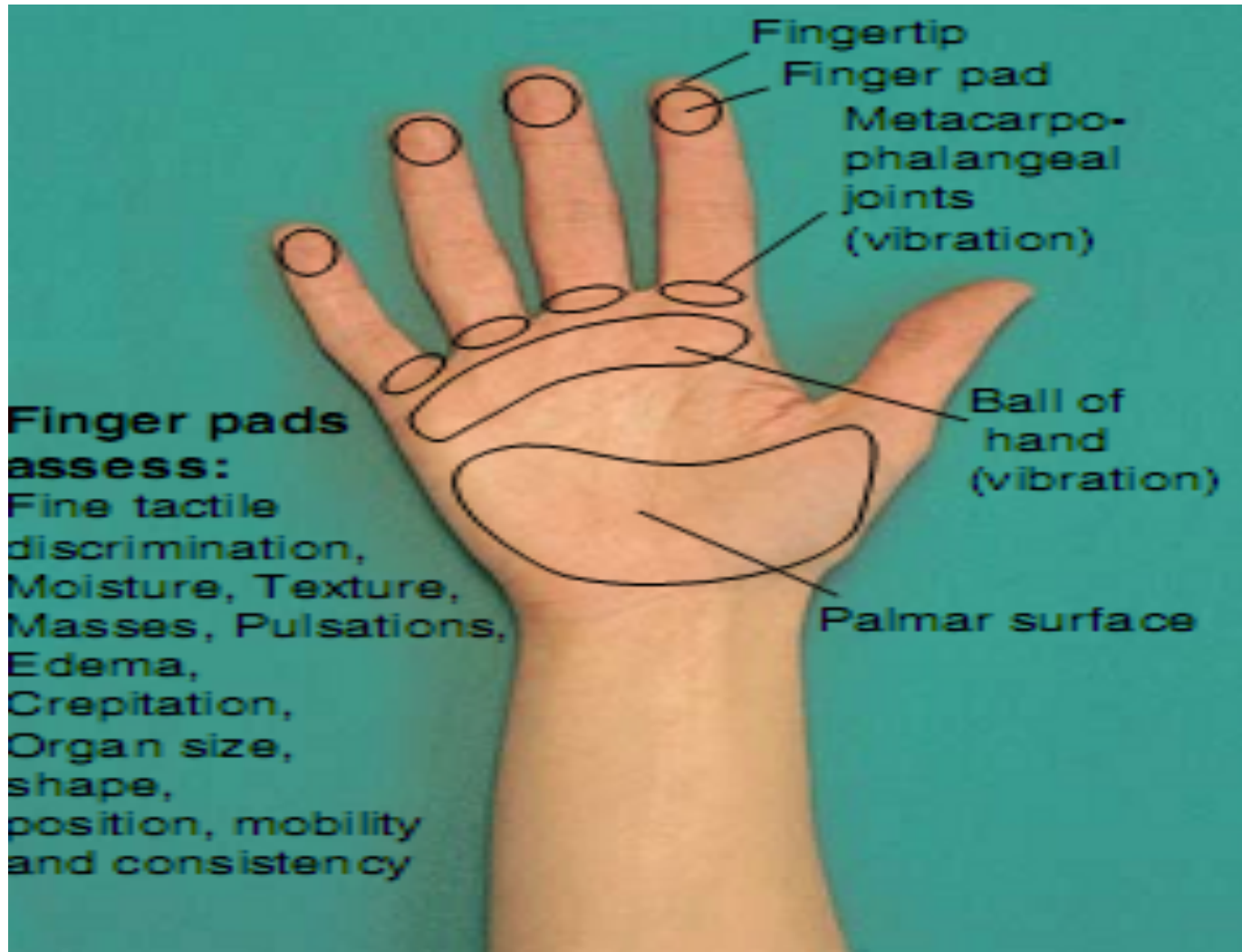
# Palpation

- Different sections of the hands are best used for assessing certain areas of the body.
- The dorsum of the hand is most sensitive to temperature changes in the body. Thus, it is more accurate to place the dorsum of the hand on a patient's forehead to assess the body temperature than it is to use the palmar surface of the hand.

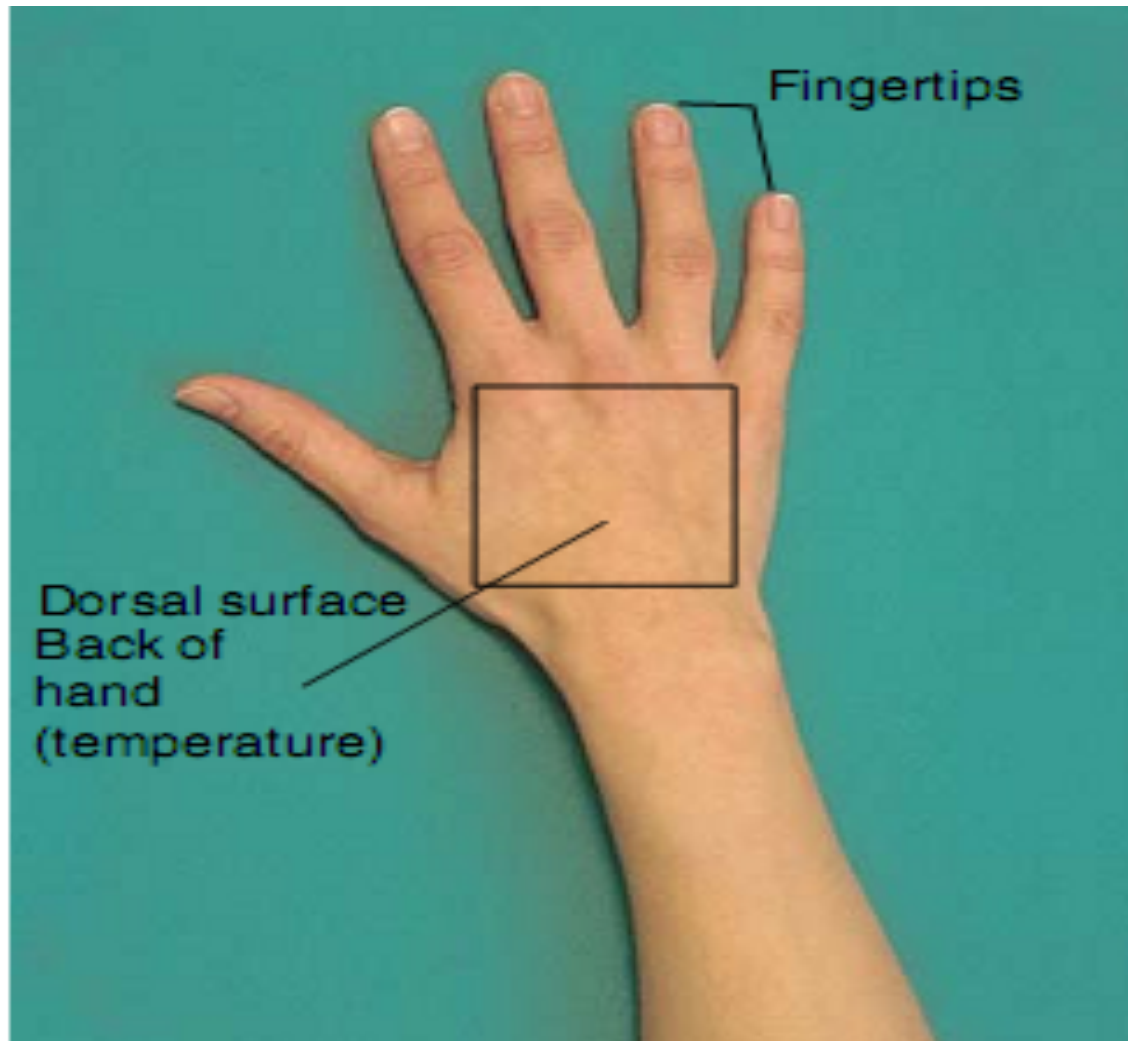
# Palpation

- The palmar surface of the fingers at the metacarpophalangeal joints, the ball of the hand, and the ulnar surface of the hand best discriminate vibrations, such as a cardiac thrill and fremitus.
- The finger pads are the portion of the hand used most frequently in palpation. The finger pads are useful in assessing fine tactile discrimination, skin moisture, and texture; the presence of masses, pulsations, edema, and crepitation; and the shape, size, position, mobility, and consistency of organs.

# Palmar surface



# Dorsal surface



# Palpation

- Remember to observe standard precautions when you are performing palpation.
- Gloves must be worn when examining any open wounds, skin lesions, a body part with discharge, as well as internal body parts such as the mouth and rectum.

# Types of palpation

- There are two distinct types of palpation: light and deep palpation.

Light palpation is done more frequently than deep palpation and is always performed before deep palpation.

- It is superficial, delicate, and gentle.
- In light palpation, the finger pads are used to gain information on the patient's skin surface to a depth of approximately 1 centimeter (cm) below the surface.
- Light palpation reveals information on skin texture and moisture; overt, large, or superficial masses; and fluid, muscle guarding, and superficial tenderness.

# To perform light palpation:

1. Keeping the fingers of your dominant hand together, place the finger pads lightly on the skin over the area that is to be palpated. The hand and fore- arm will be on a plane parallel to the area being assessed.
2. Depress the skin 1 cm in light, gentle, circular motions.
3. Keeping the finger pads on the skin, let the depressed body surface rebound to its natural position.
4. If the patient is ticklish, lift the hand off the skin before moving it to another area.

# To perform light palpation:

5. Using a systematic approach, move the fingers to an adjacent area and repeat the process.
6. Continue to move the finger pads until the entire area being examined has been palpated.
7. If the patient has complained of tenderness in any area, palpate this area last.



# Light palpation



# Types of palpation

Deep palpation can reveal information about the position of organs and masses, as well as their size, shape, mobility, consistency, and areas of discomfort.

- Deep palpation uses the hands to explore the body's internal structures to a depth of 4 to 5 cm or more.
- This technique is most often used for the abdominal and male and female reproductive assessments. Variations in this technique are single-handed and bimanual palpation.

# Deep palpation



# Percussion

- Percussion is the technique of striking one object against another to cause vibrations that produce sound.
- The density of underlying structures produces characteristic sounds. These sounds are diagnostic of normal and abnormal findings.
- The presence of air, fluid, and solids can be confirmed, as can organ size, shape, and position. Any part of the body can be percussed, but only limited information can be obtained in specific areas such as the heart.
- The thorax and abdomen are the most frequently percussed locations.

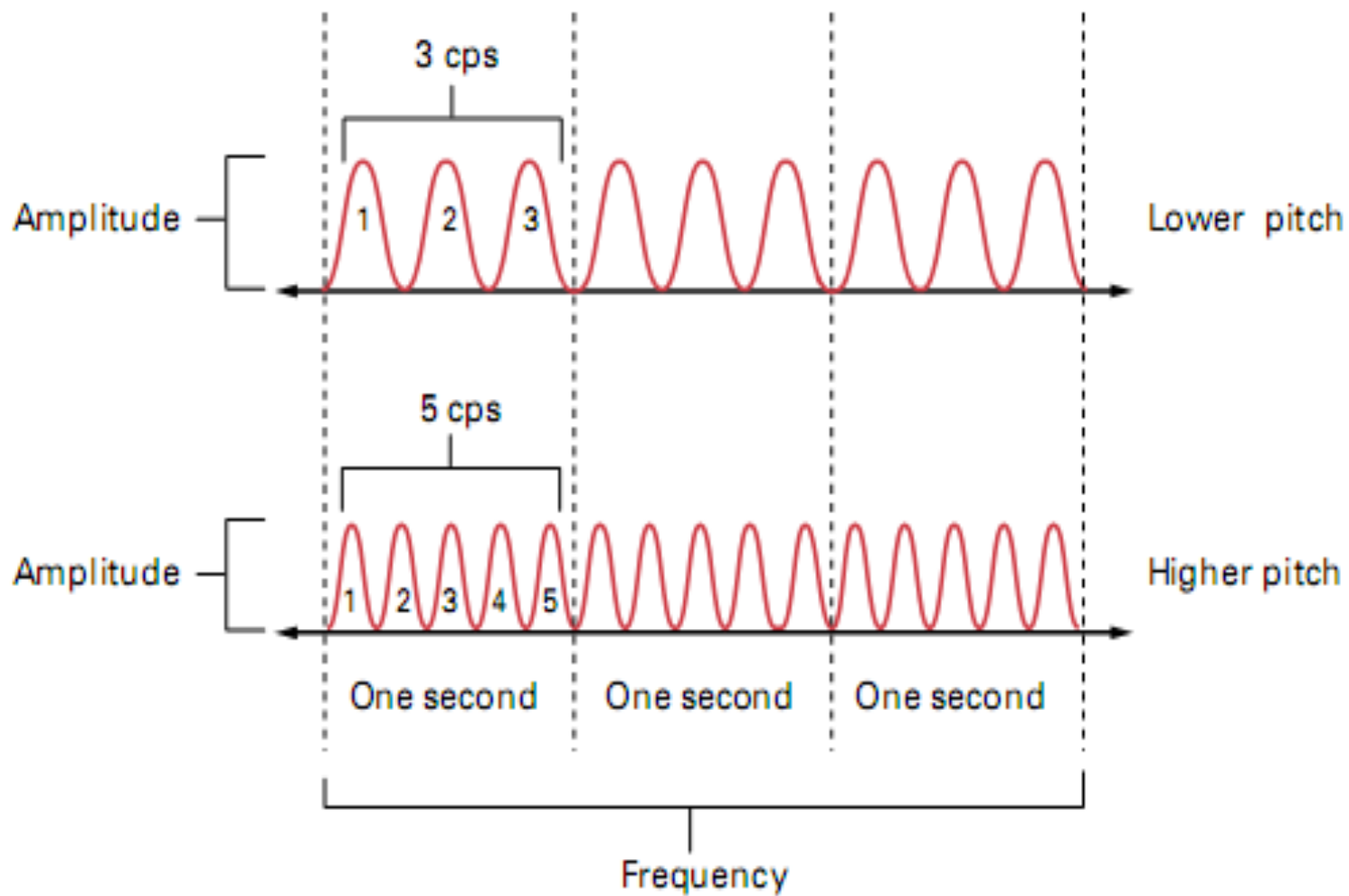
# Percussion

- Percussion sound can be analyzed according to its intensity, duration, pitch (frequency), quality, and location. Intensity refers to the relative loudness or softness of the sound. It is also called the amplitude.
- Duration of percussed sound describes the time period over which a sound is heard when elicited.

# Percussion

- Frequency describes the concept of pitch. It is caused by the sound's vibrations, or the highness or lowness of a sound. Frequency is measured in cycles per second (cps) or hertz (Hz). More rapidly occurring vibrations have a pitch that is higher than that of slower vibrations.
- The quality of a sound is its timbre, or how one perceives it musically. Location of sound refers to the area where the sound is produced and heard.

# Percussion



# Percussion

- Amplitude = height of vibration
- Frequency = cycles per second
- The process of percussion can produce five distinct sounds in the body: flatness, dullness, resonance, hyperresonance, and tympany.
- Specific parts of the body elicit distinct percussable sounds. Therefore, when an unexpected sound is heard in a particular part of the body, the cause must be further investigated.





# Percussion

- Sound waves are better conducted through a solid medium than through an air-filled medium because of the increased concentration of molecules.
- The basic premises underlying the sounds that are percussed are:
  1. The more solid a structure, the higher its pitch, the softer its intensity, and the shorter its duration.
  2. The more air-filled a structure, the lower its pitch, the louder its intensity, and the longer its duration.

# Percussion techniques:

- There are four types of percussion techniques: immediate, mediate, direct fist percussion, and indirect fist percussion.
- It is important to keep in mind that the sounds produced from percussion are generated from body tissue up to 5 cm below the surface of the skin.
- If the abdomen is to be percussed, the patient should have the opportunity to void before the assessment.

# Percussion techniques:

Immediate or direct percussion is the striking of an area of the body directly.

To perform immediate percussion:

1. Spread the index or middle finger of the dominant hand slightly apart from the rest of the fingers.
2. Make a light tapping motion with the finger pad of the index finger against the body part being percussed.
3. Note what sound is produced.

# Percussion techniques:

- Mediate percussion is also referred to as indirect percussion. This is a skill that takes time and practice to develop and to use effectively. Most sounds are produced using mediate percussion.

# Percussion techniques:

Steps to perform mediate percussion:

1. Place the nondominant hand lightly on the surface to be percussed.
2. Extend the middle finger of this hand, known as the pleximeter, and press its distal phalanx and distal interphalangeal joint firmly on the location where percussion is to begin. The pleximeter will remain stationary while percussion is performed in this location.
3. Spread the other fingers of the nondominant hand apart and raise them slightly off the surface. This prevents interference and, thus, dampening of vibrations during the actual percussion.

# Percussion techniques:

4. Flex the middle finger of the dominant hand, called the plexor. The fingernail of the plexor finger should be very short to prevent undue discomfort and injury to the patient. The other fingers on this hand should be fanned.
5. Flex the wrist of the dominant hand and place the hand directly over the pleximeter finger of the nondominant hand.

# Percussion techniques:

6. With a sharp, crisp, rapid movement from the wrist of the dominant hand, strike the pleximeter with the plexor. At this point, the plexor should be perpendicular to the pleximeter. The blow to the pleximeter should be between the distal interphalangeal joint and the fingernail. Use the finger pad rather than the fingertip of the plexor to deliver the blow. Concentrate on the movement to create the striking action from the dominant wrist only.



# Percussion techniques:

7. As soon as the plexor strikes the pleximeter, withdraw the plexor to avoid dampening the resulting vibrations. Do not move the pleximeter finger.
8. Note the sound produced from the percussion.
9. Repeat the percussion process one or two times in this location to confirm the sound.
10. Move the pleximeter to a second location, preferably the contralateral location from where the previous percussion was performed. Repeat the percussion process in this manner until the entire body surface area being assessed has been percussed.

# Mediate percussion



# Percussion techniques:

Direct fist percussion is used to assess the presence of tenderness and pain in internal organs, such as the liver or the kidneys.

To perform direct fist percussion:

1. Explain this technique thoroughly so the patient does not think you are hitting him or her.
2. Draw the dominant hand up into a fist.
3. With the ulnar aspect of the closed fist, directly hit the area where the organ is located. The strike should be of moderate force, and it may take some practice to achieve the right intensity.

The presence of pain in conjunction with direct fist percussion indicates inflammation of that organ or a strike of too high an intensity.

# Direct fist percussion



# Percussion techniques:

## Indirect Fist Percussion

Indirect method is preferred over the direct method.

Steps to perform indirect fist percussion:

1. Place the palmar side of the nondominant hand on the skin's surface over the organ to be examined. Place the fingers adjacent to one another and in straight alignment with the palm.
2. Draw up the dominant hand into a closed fist.
3. With the ulnar aspect of the closed fist, use moderate intensity to hit the outstretched nondominant hand on the dorsum. The nondominant hand absorbs some of the force of the striking hand. The resulting intensity should be of sufficient force to produce pain in the patient if organ inflammation is present.

# Technique of Indirect Fist Percussion:



# Auscultation

- Auscultation is the act of active listening to body organs to gather information on a patient's clinical status.
- Auscultation includes listening to sounds that are voluntarily and involuntarily produced by the body. A deep inspiration a patient takes with the lung assessment illustrates a voluntary sound, and heart sounds illustrate involuntary sounds.
- A quiet environment is necessary for auscultation.
- Auscultated sounds should be analyzed in relation to their relative intensity, pitch, duration, quality, and location.
- There are two types of auscultation: direct and indirect.

# Auscultation

Direct or immediate auscultation is the process of listening with the unaided ear.

- This can include listening to the patient from some distance away or placing the ear directly on the patient's skin surface. An example of immediate auscultation is the wheezing that is audible to the unassisted ear in a person having a severe asthmatic attack.



# Auscultation

- Indirect or mediate auscultation describes the process of listening with some amplification or mechanical device.
- The nurse most often performs mediate auscultation with an acoustic stethoscope, which does not amplify the body sounds, but instead blocks out environmental sounds.
- Amplification of body sounds can also be achieved with the use of a Doppler ultrasonic stethoscope.

# The acoustic stethoscope.

- The earpieces block out noises in the environment.
- The earpieces and binaurals should be angled toward the nose. This angle permits the natural direction of the ear canal to be accessed. In this manner, sounds will be
- directed toward the adult tympanic membrane.
- The rubber or plastic tubing should be between 30.5 and 40 cm (12–18 in.). Stethoscopes with longer tubing will diminish the body sounds that are auscultated.
- The acoustic stethoscope has two listening heads: the bell and the diaphragm. The diaphragm is flat and the bell is a concave cup. The diaphragm transmits high-pitched sounds and the bell transmits low-pitched sounds.
- Breath sounds and normal heart sounds are examples of high-pitched sounds. Heart murmurs are examples of low-pitched sounds.

# Auscultation

- Prior to auscultating, remove dangling necklaces or bracelets that can move during the examination and cause false noises.
- Warm the headpieces of the stethoscope in your hands prior to use, because shivering and movement can obscure assessment findings.
- To use the diaphragm, place it firmly against the skin surface to be auscultated. If the patient has a large quantity of hair in this area, it may be necessary to wet the hair to prevent it from interfering with the sound that is being auscultated. Otherwise, a grating sound may be heard.

# Auscultation

- To use the bell, place it lightly on the skin surface that is to be auscultated.
- The bell will stretch the skin and act like a diaphragm and transmit high-pitched sounds if it is pressed too firmly on the skin. In both instances, auscultation requires a great deal of concentration.
- It may be helpful to close your eyes during the auscultation process to help you isolate the sound. Sometimes you can hear more than one sound in a given location. Try to listen to each sound and concentrate on each separately. It is important to clean your stethoscope after each patient to prevent the transfer of pathogens.

**Remember, auscultation is a skill that requires practice and patience. Don't expect to become an expert overnight.**

# Reflective thinking

- You are inserting a vaginal speculum into a patient when she says, “I’ve changed my mind. I don’t want to do this.” How would you respond to this patient?
- While performing a breast exam on a patient, the patient shrieks, “What do you think you are doing?” How would you respond to this patient?
- During deep palpation of the abdomen, your patient responds, “Ouch, you hurt me!” How would you respond?

# Golden Rules for Physical Assessment

- Stand on the right side of the patient; establishing a dominant side for assessment will decrease your movement around the patient.
- Perform the assessment in a head-to-toe approach.
- Always compare the right- and left-hand sides of the body for symmetry.
- Proceed from the least invasive to the most invasive procedures for each body system.
- Always perform the physical assessment using a systematic approach; if it is performed the same way each time, you are less likely to forget some part of the assessment.

# Equipment to perform physical assessment

The equipment needed to perform a complete physical examination of the adult patient includes:

- Pen and paper
- Marking pen
- Tape measure
- Clean gloves
- Penlight or flashlight
- weighing Scale
- Thermometer
- Sphygmomanometer
- Gooseneck lamp
- Tongue depressor
- Stethoscope
- Otoscope
- Nasal speculum
- Ophthalmoscope
- Transilluminator
- Visual acuity charts

# Equipment to perform physical assessment

- Tuning fork
- Reflex hammer
- Sterile needle
- Cotton balls
- Odors for cranial nerve assessment (coffee, lemon, flowers, etc.)
- Small objects for neurological assessment (paper clip, key, cotton ball, pen, etc.)
- Lubricant
- Various sizes of vaginal speculums
- Cervical brush
- Cotton-tip applicator
- Cervical spatula
- Slide and fixative
- Guaiac material
- Specimen cup



# Equipments



# Equipments

1. Tuning Fork
2. Visual Occluder
3. Ruler
4. Visual Acuity Chart
5. Reflex Hammer (brush at bottom)
6. Reflex Hammer
7. Pen and Marking Pen
8. Penlight
9. Thermometer
10. Sphygmomanometer
11. Slide and Fixative
12. Specimen Cup
13. Vaginal Speculum
14. Lubricant
15. Goniometer
16. Clean Gloves
17. Cervical Spatula (Ayre Spatula)
18. Cervical Brush (Cytobrush)
19. Cotton-tip Applicator
20. Tongue Depressor
21. Guaiac Material
22. Tape Measure
23. Acoustic Stethoscope
24. Ophthalmoscope
25. Otoscope with Speculum
26. Objects for Neurological Examination (key and cotton ball)
27. Sterile Needle

# Preparing for a Physical Assessment

- Review knowledge of anatomy and physiology of the various systems so as to detect abnormalities.
- Review knowledge about the procedure and diverse socio-cultural awareness.
- Familiarize self with the operation of the equipment/ instruments to be used in the exam.

# Preparing for a Physical Assessment

- Always dress in a clean, professional manner; make sure your name pin or workplace identification is visible.
- Remove all bracelets, necklaces, or earrings that can interfere with the physical assessment.
- Be sure that your fingernails are short and your hands are warm for maximum patient comfort.
- Be sure your hair will not fall forward and obstruct your vision or touch the patient.

# Preparing for a Physical

- Arrange for a well-lit, warm, and private room.
- Ensure that all the necessary equipment is ready for use and within reach.
- Introduce yourself to the patient: “My name is Veronica Rojas. I am the nurse who is caring for you today. I need to assess how your lungs are today.”
- Clarify with the patient how he or she wishes to be addressed: Miss Jones, José, Dr. Casey, Rev. Grimes, etc.

# Preparing for a Physical Assessment

- Explain what you plan to do and how long it will take; allow the patient to ask questions.
- Instruct the patient to undress; the underpants can be left on until the end of the assessment; provide a gown and drape for the patient and explain how to use them.
- Allow the patient to undress privately; inform the patient when you will return to start the assessment.
- Have the patient void prior to the assessment.

# Preparing for a Physical Assessment

- Wash your hands in front of the patient to show your concern for cleanliness.
- Observe standard precautions and transmission-based precautions, as indicated.
- Ensure that the patient is accessible from both sides of the examining bed or table.
- If a bed is used, raise the height so that you do not have to bend over to perform the assessment.
- Position the patient as dictated by the body system being assessed;

# Preparing for a Physical Assessment

- Enlist the patient's cooperation by explaining what you are about to do, where it will be done, and how it may feel.
- Warm all instruments prior to their use (use your hands or warm water).
- Examine the unaffected body part or side first if a patient's complaint is unilateral.
- Explain to the patient why you may be spending a long time performing one particular skill: "Listening to the heart requires concentration and time."



# Preparing for a Physical Assessment

- If the patient complains of fatigue, continue the assessment later (if possible).
- Avoid making crude or negative remarks; be cognizant of your facial expression when dealing with malodorous and dirty patients or with disturbing findings (infected wounds, disfigurement, etc.).
- Conduct the assessment in a systematic fashion every time. (This decreases the likelihood of forgetting to perform a particular assessment.)
- Thank the patient when the physical assessment is concluded; inform the patient what will happen next.
- Document assessment findings in the appropriate section of the patient record.

# Positions for assessing various systems

- Semi Fowler's position (45°): Skin, head, and neck; eyes, ears, nose, mouth, and throat; thorax and lungs; heart and peripheral vasculature; musculoskeletal; neurological; patients who cannot tolerate sitting up at a 90° angle.
- High Fowler's (90°): Skin, head, and neck; eyes, ears, nose, mouth, and throat; back; posterior thorax and lungs; anterior thorax and lungs; breast; axillae; heart; peripheral vasculature; musculoskeletal; neurological

# Positions for assessing various systems

- Recumbent/ Supine: Breasts; heart and peripheral vasculature; abdomen; musculoskeletal.
- Dorsal recumbent: Female genitalia; patients who cannot tolerate knee flexion.
- Lateral/ side-lying: Skin; thorax and lungs; bedridden patients who cannot sit up.
- Lithotomy: Female genitalia and rectum

# Positions for assessing various systems

- Knee-chest: Rectum and prostate.
- Sims position: Rectum and female genitalia
- Prone: Skin; posterior thorax and lungs; hips

# Clearance

- Give a detailed feedback to the patient/ family and involve them in the plan of care.
- Thank the patient/ client for his/ her role in the examination and leave him/ her comfortable.
- Remove the screens, open the windows, tidy the examination couch.
- Reset the examination tray.

# HEAD TO TOE EXAMINATION

## General survey:

- ◇ Physical Appearance (Age, Sexual development, Skin color, Facial features, Signs of acute distress, Visible devices and equipment)
- ◇ Body Structure (Stature, Nutrition, Symmetry, Posture, Position, Body build and contour, Obvious physical deformities)
- ◇ Mobility (May verbalize: Gait and Range of motion as noted upon walking into exam room, etc.)
- ◇ Behavior (Facial expression, Mood and affect, Speech, Dress, Personal hygiene)

- Head and Face:
- ◇ Inspect and palpate scalp, hair and skull (normocephalic, no infestation, lesions, etc)
- ◇ Inspect the face (note expression, symmetry, abnormal facial structures, skin)
- ◇ Palpate temporomandibular joint (have patient open mouth: note crepitus, limited ROM, or tenderness)
- ◇ Percuss/palpate maxillary and frontal sinuses (nontender)

- Eyes:
- ◇ Inspect external ocular structures (Note symmetry, lesions, discharge, infestation of: Eyebrows, Eyelids, Eyelashes)
- ◇ Inspect Eyeballs and Iris (note normal alignment, no protrusion, color)
- ◇ Inspect Conjunctiva and Sclera (Note color change, swelling, or lesions; Conjunctiva: pink and Sclera: white)
- ◇ Test PERRLA (Pupils Equal, Round, Reactive to Light, and Accommodation)



- Ears:
- ◇ Inspect external ear (note symmetry, position, alignment, lesions)
- ◇ Palpate for tenderness
- ◇ Inspect external auditory meatus (no swelling, redness, or discharge)

- Nose:
- ◇ Inspect external structure (note symmetry, midline position, proportional to other facial features, lesions)
- ◇ Palpate for tenderness
- ◇ Inspect nasal cavity (note normal red color, smooth moist surface, swelling, discharge, bleeding, foreign body)

- Mouth and Throat:
- ◇ Inspect the lips and teeth (note color, moisture, cracking, lesions, alignment, caries)
- ◇ Inspect the oral mucosa (Tongue, Buccal mucosa, Palate: note color, moisture, lesions)
- ◇ Inspect and grade tonsils if present (pink, without exudate, grade 1-4)

- Neck:
- ◇ Inspect the neck (note symmetry, head position midline, pulsations, masses)
- ◇ Verbalize palpation of cervical lymph nodes (noting any lymphadenopathy)
- ◇ Palpate one carotid pulse (may verbalize to first auscultate for bruit if older than middle age or signs or symptoms of
- cardiovascular disease)

- Posterior Thorax:
- ◇ Inspect the posterior chest (note shape and configuration: scoliosis, kyphosis, lordosis; skin; AP diameter < transverse diameter; position)
- ◇ Palpate posterior chest (symmetrical expansion, tactile fremitus, masses, tenderness, temperature)
- ◇ Auscultate posterior lung fields (6 positions, verbalizes which lobe at each location and which sounds heard at each location)

- Anterior Thorax:
- ◇ Inspect the anterior chest (respirations, accessory muscle use, skin for lesions)
- ◇ Palpate anterior chest (masses, tenderness, temperature)
- ◇ Auscultate anterior lung fields (6 positions, verbalizes which lobe at each location and which sounds heard at each location)

- Upper Extremities:
- ◇ Inspect symmetry, skin, hair distribution
- ◇ Test muscle strength of upper extremities (bilateral hand grasp)
- ◇ Inspect capillary refill
- ◇ Palpate one radial pulse

- Neck vessels and Heart:
- ◇ Inspect jugular venous pulse
- ◇ Inspect the anterior chest (note symmetry, skin, apical impulse if visible)
- ◇ Palpate apical impulse (verbalize location: fourth or fifth intercostal space, left midclavicular line)
- ◇ Auscultate 4 cardiac areas with diaphragm and bell (verbalize areas and location)



- Abdomen (lower HOB if necessary):
- ◇ Inspect contour, symmetry, skin, pulsations
- ◇ Auscultate bowel sounds in 4 quadrants (start in Right Lower Quadrant)
- ◇ Light palpation of all quadrants (note muscle guarding, rigidity, large masses, tenderness)

# Inspection of the abdomen

- Inspect for skin integrity (Pigmentation, lesions, striae, scars, veins, and umbilicus). Contour (flat, rounded, scapoid) Distension Respiratory movement. Visible peristalsis. Pulsations
- Normal Findings: Skin color is uniform, no lesions. Some clients may have striae or scar. No venous engorgement. Contour may be flat, rounded or scapoid Thin clients may have visible peristalsis. Aortic pulsation maybe visible on thin clients.

# Auscultation of the Abdomen

- This method precedes percussion because bowel motility, and thus bowel sounds, may be increased by palpation or percussion. The stethoscope and the hands should be warmed; if they are cold, they may initiate contraction of the abdominal muscles. Light pressure on the stethoscope is sufficient to detect bowel sounds and bruits. Intestinal sounds are relatively high-pitched, the bell may be used in exploring arterial murmurs and venous hum.

# Peristaltic sounds

- These sounds are produced by the movements of air and fluids through the gastrointestinal tract. Peristalsis can provide diagnostic clues relevant to the motility of bowel. Listening to the bowel sounds can be facilitated by following these steps: Divide the abdomen in four quadrants. Listen over all auscultation sites, starting at the right lower quadrants, following the cross pattern of the imaginary lines in creating the abdominal quadrants. This direction ensures that we follow the direction of bowel movement.

# Peristaltic sounds

- Peristaltic sounds are quite irregular. Thus it is recommended that the examiner listen for at least 5 minutes, especially at the periumbilical area, before concluding that no bowel sounds are present.
- The normal bowel sounds are high-pitched, gurgling noises that occur approximately every 5 – 15 seconds. It is suggested that the number of bowel sound may be as low as 3 to as high as 20 per minute, or roughly, one bowel sound for each breath sound.

# Peristaltic sounds

Some factors that affect bowel sound:

- Presence of food in the GI tract.
- State of digestion.
- Pathologic conditions of the bowel (inflammation, Gangrene, paralytic ileus, peritonitis).
- Bowel surgery Constipation or Diarrhea.
- Electrolyte imbalances.
- Bowel obstruction.

# Percussion of the abdomen

- Abdominal percussion is aimed at detecting fluid in the peritoneum (ascites), gaseous distension, and masses, and in assessing solid structures within the abdomen. The direction of abdominal percussion follows the auscultation site at each abdominal guardant.

# Percussion of the abdomen

- The entire abdomen should be percussed lightly or a general picture of the areas of tympany and dullness. Tympany will predominate because of the presence of gas in the small and large bowel. Solid masses will percuss as dull, such as liver in the RUQ, spleen at the 6th or 9th rib just posterior to or at the mid axillary line on the left side. Percussion in the abdomen can also be used in assessing the liver span and size of the spleen.



# Percussion of the liver

- The palms of the left hand are placed over the region of liver dullness. The area is struck lightly with a fist of the right hand. Normally tenderness should not be elicited by this method. Tenderness elicited by this method is usually a result of hepatitis or cholecystitis.

# Renal Percussion

- Can be done by either indirect or direct method.
- Percussion is done over the costovertebral junction.
- Tenderness elicited by such method suggests renal inflammation.

# Palpation of the Abdomen

## Light palpation

- It is a gentle exploration performed while the client is in supine position. With the examiner's hands parallel to the floor. The fingers depress the abdominal wall, at each quadrant, by approximately 1 cm without digging, but gently palpating with slow circular motion. This method is used for eliciting slight tenderness, large masses, and muscles, and muscle guarding. Tensing of abdominal musculature may occur because of: The examiner's hands are too cold or are pressed too vigorously or deep into the abdomen. The client is ticklish or guards involuntarily. Presence of subjacent pathologic condition.

# Palpation of the Abdomen

## Normal Findings:

- No tenderness noted.
- With smooth and consistent tension.
- No muscles guarding.

# Deep Palpation

- It is the indentation of the abdomen performed by pressing the distal half of the palmar surfaces of the fingers into the abdominal wall. The abdominal wall may slide back and forth while the fingers move back and forth over the organ being examined. Deeper structures, like the liver, and retro peritoneal organs, like the kidneys, or masses may be felt with this method. In the absence of disease, pressure produced by deep palpation may produce tenderness over the cecum, the sigmoid colon, and the aorta.

# Liver palpation

- There are two types of bi manual palpation recommended for palpation of the liver.
- The first one is the superimposition of the right hand over the left hand. Ask the patient to take 3 normal breaths. Then ask the client to breath deeply and hold. This would push the liver down to facilitate palpation. Press hand deeply over the RUQ The second methods: The examiner's left hand is placed beneath the client at the level of the right 11th and 12th ribs.

# Liver palpation

- Place the examiner's right hands parallel to the costal margin or the RUQ.
- An upward pressure is placed beneath the client to push the liver towards the examining right hand, while the right hand is pressing into the abdominal wall.
- Ask the client to breath deeply. As the client inspires, the liver maybe felt to slip beneath the examining fingers.

# Liver palpation

## Normal Findings:

- The liver usually can not be palpated in a normal adult.
- However, in extremely thin but otherwise well individuals, it may be felt the costal margins. When the normal liver margin is palpated, it must be smooth, regular in contour, firm and non-tender.



- Lower extremities:
- ◇ Inspect symmetry, skin, hair distribution
- ◇ Test ROM on one joint
- ◇ Test muscle strength of lower extremities (press both feet against resistance)
- ◇ Palpate one dorsalis pedis pulse

# Extremities

## Inspection

- Observe for size, contour, bilateral symmetry, and involuntary movement.
- Look for gross deformities, edema, presence of trauma such as ecchymosis or other discoloration.
- Always compare both extremities.

# Palpation

- Feel for evenness of temperature. Normally it should be even for all the extremities. Tonicity of muscle. (Can be measured by asking client to squeeze examiner's fingers and noting for equality of contraction). Perform range of motion. Test for muscle strength. (performed against gravity and against resistance) Table showing the Lovett scale for grading for muscle strength and functional level

## Normal Findings

- Both extremities are equal in size.
- Have the same contour with prominences of joints.
- No involuntary movements.
- No edema Color is even.
- Temperature is warm and even.
- Has equal contraction and even.
- Can perform complete range of motion.
- No crepitus must be noted on joints.
- Can counter act gravity and resistance on ROM.

- Neurologic:
- ◇ Sensory (have patient close eyes, randomly touch forehead, cheek, chin, upper and lower extremities and note sensation)
- ◇ Motor (verbalize performance of Romberg test and how it is performed)

# Inspection of the Breast

- There are 4 major sitting position of the client used for clinical breast examination. Every client should be examined in each position. The client is seated with her arms on her side. The client is seated with her arms abducted over the head. The client is seated and is pushing her hands into her hips, simultaneously eliciting contraction of the pectoral muscles. The client is seated and is leaning over while the examiner assists in supporting and balancing her.

# Inspection of the Breast

- While the client is performing these maneuvers, the breasts are carefully observed for symmetry, bulging, retraction, and fixation. An abnormality may not be apparent in the breasts at rest a mass may cause the breasts, through invasion of the suspensory ligaments, to fix, preventing them from upward movement in position 2 and 4. Position 3 specifically assists in eliciting dimpling if a mass has infiltrated and shortened suspensory ligaments.

# Inspection of the Breast

## Normal Findings:

- The overlying the breast should be even. May or may not be completely symmetrical at rest.
- The areola is rounded or oval, with same color, (Color varies from light pink to dark brown depending on race).
- Nipples are rounded, everted, same size and equal in color. No “orange peel” skin is noted which is present in edema.
- The veins maybe visible but not engorge and prominent.
- No obvious mass noted.
- Not fixated and moves bilaterally when hands are abducted over the head, or is leaning forward. No retractions or dimpling.



# Palpation of the Breast

- Palpate the breast along imaginary concentric circles, following a clockwise rotary motion, from the periphery to the center going to the nipples. Be sure that the breast is adequately surveyed. Breast examination is best done 1 week post menses. Each areolar areas are carefully palpated to determine the presence of underlying masses. Each nipple is gently compressed to assess for the presence of masses or discharge.

# Palpation of the Breast

## Normal Findings:

- No lumps or masses are palpable.
- No tenderness upon palpation.
- No discharges from the nipples.
- NOTE: The male breasts are observed by adapting the techniques used for female clients. However, the various sitting position used for woman is unnecessary.

# BREAST EXAM - Part 1

- With the patient in the sitting position, ask patient to lower the gown so that both breasts are visible. Inspect the appearance of the skin, size and dimpling of the breasts, and contour of the breasts.
- Instruct patient to raise arms outstretched above the head and examine each breast for dimpling, contour changes, and skin discoloration.
- Instruct patient to hold hands against hips, press inward, and instruct patient to lean forward. Inspect again for dimpling.

- Palpate the axillary nodes in the following four areas:
  - 1) anterior axillary fold;
  - 2) posterior axillary fold;
  - 3) along the proximal humerus; and
  - 4) deep in the axillary vault. (This should be done with patient's arm relaxed.)
- \*Note: This examination should be performed on bare skin, not over the gown.

# BREAST EXAM - Part 2

- Instruct patient to lie down supine. Instruct patient to raise the ipsilateral arm above the head.
- Use the middle three digits of your dominant hand to palpate the breast starting at the top of the breast on the side of the sternum. Repeat on the opposite breast.

# BREAST EXAM - Part 2

- \*Note: You must use 3 types of pressure while palpating, starting with a light pressure, then a medium pressure, then a firm pressure on each area covered. Fingers must never lose contact with the skin of the breast.
- \*Recommended Technique: The “strip” technique - with your fingers never losing contact with the breast, descend from top to bottom and bottom to top in vertical lines until all regions (including the nipple as part of the breast tissue) have been palpated.

**GORDON'S**  
**TYPOLGY OF 11**  
**FUNCTIONAL**  
**HEALTH PATTERNS**

# GORDON'S TYPOLOGY OF 11 FUNCTIONAL HEALTH PATTERNS

- Marjorie Gordon (1987) proposed functional health patterns as a guide for establishing a comprehensive nursing data base.
- These 11 categories make possible a systematic and standardized approach to data collection, and enable the nurse to determine the aspects of health and human function:
- They provide a framework for assessment, nursing diagnoses, and a plan of care.



# FUNCTIONAL HEALTH PATTERNS

1. HEALTH PERCEPTION/ HEALTH MANAGEMENT PATTERN – describes the client's perceived pattern of health and well being and how health is managed.
2. NUTRITIONAL/ METABOLIC PATTERN – describes the client's pattern of food and fluid consumption relative to metabolic need and pattern indicators of local nutrient supply.

# FUNCTIONAL HEALTH PATTERNS

3. ELIMINATION PATTERN – describes the patterns of excretory function (bowel, bladder and skin)
4. ACTIVITY/ EXERCISE PATTERN – describes the pattern of exercise, activity, leisure and recreation.
5. SLEEP – REST PATTERN – describes patterns of sleep, rest and relaxation.
6. COGNITIVE/ PERCEPTUAL PATTERN – describes sensory – perceptual and cognitive patterns.

# FUNCTIONAL HEALTH PATTERNS

7. SELF – PERCEPTION/ SELF – CONCEPT PATTERN – describes the client's self concept pattern and perceptions of self (e.g self-conception, worth, comfort, body image, feeling state)
8. ROLE/ RELATIONSHIP PATTERN – describes the client's pattern of role participation and relationships.
9. SEXUALITY/ REPRODUCTIVE PATTERN – describes the client's patterns of satisfaction and dissatisfaction with sexuality pattern; describes reproductive patterns.

# FUNCTIONAL HEALTH PATTERNS

10. COPING/ STRESS TOLERANCE PATTERN – describes the client's general coping pattern and effectiveness of the pattern in terms of stress tolerance.
11. VALUE/ BELIEF PATTERN – describes the patterns of values, beliefs (including spiritual) and goals that guide the client's choices or decisions.

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

### Health Perception and Health Management

It's focused on the person's perceived level of health and well-being, and on practices for maintaining health. Also evaluates Habits including smoking and alcohol or drug use.

- Perceived health status
- Perceived health management
- Health care behaviours: health promotion and illness prevention activities, medical treatments, follow-up care

# 1. PATTERN OF HEALTH PERCEPTION & HEALTH MANAGEMENT

- How does the person describe her/ his current health?
- What does the person do to improve or maintain her/ his health?
- What does the person know about links between lifestyle choices and health?
- How big a problem is financing health care for this person?

# 1. PATTERN OF HEALTH PERCEPTION & HEALTH MANAGEMENT

- Can this person report the names of current medications s/he is taking and their purpose?
- If this person has allergies, what does s/he do to prevent problems?
- What does this person know about medical problems in the family?
- Have there been any important illnesses or injuries in this person's life?

# FUNCTIONAL HEALTH PATTERNS

Health Perception and Health Management.

- Contamination
- Disturbed energy field
- Effective therapeutic regimen management
- Health-seeking behaviors (specify)
- Ineffective community therapeutic regimen management



# FUNCTIONAL HEALTH PATTERNS

- Ineffective family therapeutic regimen management
- Ineffective health maintenance
- Ineffective protection
- Ineffective therapeutic regimen management
- Noncompliance (ineffective Adherence)

# FUNCTIONAL HEALTH PATTERNS

- Readiness for enhanced immunization status
- Readiness for enhanced therapeutic regimen management
- Risk for contamination
- Risk for infection
- Risk for injury
- Risk for perioperative positioning injury
- Risk for poisoning
- Risk for sudden infant death syndrome
- Risk for suffocation
- Risk for trauma
- Risk-prone health behavior

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Nutritional Metabolic Pattern it's focused on the pattern of food and fluid consumption relative to metabolic need.

- Daily consumption of food and fluids
- Favourite foods
- Use of dietary supplements
- Skin lesions and ability to heal
- Conditions of the integument
- Weight, height, temperature

## 2. NUTRITIONAL - METABOLIC PATTERN

- Is the person well nourished?
- How do the person's food choices compare with recommended food intake?
- Does the person have any disease that effects nutritional- metabolic function?

# FUNCTIONAL HEALTH PATTERNS

## Nutritional Metabolic Pattern

- Adult failure to thrive
- Deficient fluid volume: [isotonic]
- [Deficient fluid volume: hyper/hypotonic]
- Effective breastfeeding
- Excess fluid volume
- Hyperthermia
- Hypothermia

# FUNCTIONAL HEALTH PATTERNS

- Imbalanced nutrition: more than body requirements
- Imbalanced nutrition: less than body requirements
- Imbalanced nutrition: risk for more than body requirements
- Impaired dentition
- Impaired oral mucous membrane
- Impaired skin integrity
- Impaired swallowing
- Impaired tissue integrity

# FUNCTIONAL HEALTH PATTERNS

- Ineffective breastfeeding
- Ineffective infant feeding pattern
- Ineffective thermoregulation
- Interrupted breastfeeding
- Latex allergy response
- Nausea
- Readiness for enhanced fluid balance
- Readiness for enhanced nutrition

# FUNCTIONAL HEALTH PATTERNS

- Risk for aspiration
- Risk for deficient fluid volume
- Risk for imbalanced fluid volume
- Risk for imbalanced body temperature
- Risk for impaired liver function
- Risk for impaired skin integrity
- Risk for latex allergy response
- Risk for unstable blood glucose



# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

- Elimination Pattern. It's focused on excretory patterns (bowel, bladder, skin).
- Patterns of bowel and urinary excretion
- Perceived regularity or irregularity of elimination
- Use of laxatives or routines
- Changes in time, modes, quality or quantity of excretions
- Use of devices for control

### 3. PATTERN OF ELIMINATION

- Are the person's excretory functions within the normal range?
- Does the person have any disease of the digestive system, urinary system or skin?

# FUNCTIONAL HEALTH PATTERNS

## Elimination Pattern.

- Bowel incontinence
- Constipation
- Diarrhea
- Functional urinary incontinence
- Impaired urinary elimination
- Overflow urinary incontinence
- Perceived constipation

# FUNCTIONAL HEALTH PATTERNS

- Readiness for enhanced urinary elimination,
- Reflex urinary incontinence
- Risk for constipation
- Risk for urge urinary incontinence
- Stress urinary incontinence
- Total urinary incontinence
- Urge urinary incontinence
- [acute/chronic] Urinary retention

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

- Activity and Exercise Pattern. It's focused on the activities of daily living requiring energy expenditure, including self-care activities, exercise, and leisure activities.
- Patterns of personality relevant exercise, activity, leisure and recreation
- ADLs which require energy expenditure
- Factors that interfere with the desired pattern (e.g illness or injury)

## 4. PATTERN OF ACTIVITY & EXERCISE

- How does the person describe her/ his weekly pattern of activity and leisure, exercise and recreation?
- Does the person have any disease that effects her/ his cardio-respiratory system or musculo-skeletal system?

# FUNCTIONAL HEALTH PATTERNS

## Activity and Exercise Pattern.

- Activity intolerance
- Autonomic dysreflexia
- Decreased cardiac output
- Decreased intracranial adaptive capacity
- Deficient diversional activity
- Delayed growth and development
- Delayed surgical recovery
- Disorganized infant behavior
- Fatigue

# FUNCTIONAL HEALTH PATTERNS

- Impaired spontaneous ventilation
- Impaired bed mobility
- Impaired gas exchange
- Impaired home maintenance
- Impaired physical mobility
- Impaired transfer ability
- Impaired walking
- Impaired wheelchair mobility



# FUNCTIONAL HEALTH PATTERNS

- Ineffective airway clearance
- Ineffective breathing pattern
- Ineffective tissue perfusion
- Readiness for enhanced organized infant behavior
- Readiness for enhanced self care
- Risk for delayed development
- Risk for disorganized infant behavior
- Risk for disproportionate growth
- Risk for activity intolerance
- Risk for autonomic dysreflexia
- Risk for disuse syndrome
- Sedentary lifestyle
- Self-care deficit
- Wandering

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Cognitive-Perceptual Pattern. It's focused on the ability to comprehend and use information and on the sensory functions. Neurologic functions, Sensory experiences such as pain and altered sensory input.

- Adequacy of vision, hearing, taste, touch, smell
- Pain perception and management
- Language, judgment, memory, decisions

## 5. COGNITIVE - PERCEPTUAL PATTERN

- Does the person have any sensory deficits?
- Are they corrected?
- Can this person express her/ himself clearly and logically?
- How educated is this person?
- Does the person have any disease that effects mental or sensory functions?
- If this person has pain, describe it and it's causes.

# FUNCTIONAL HEALTH PATTERNS

## Cognitive-Perceptual Pattern.

- Acute confusion
- Acute pain
- Chronic confusion
- Chronic pain
- Decisional conflict
- Deficient knowledge
- Disturbed sensory perception
- Disturbed thought processes

# FUNCTIONAL HEALTH PATTERNS

- Impaired environmental interpretation syndrome
- Impaired memory
- Readiness for enhanced comfort
- Readiness for enhanced decision making
- Readiness for enhanced knowledge
- Risk for acute confusion
- Unilateral neglect

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Sleep Rest Pattern. It's focused on the person's sleep, rest, and relaxation practices.

To identified dysfunctional sleep patterns, fatigue, and responses to sleep deprivation.

- Patterns of sleep and rest-/relaxation in a 24-hr period
- Perceptions of quality and quantity of sleep and rest
- Use of sleep aids and routines

## 6. PATTERN OF SLEEP & REST

- Describe this person's sleep-wake cycle.
- Does this person appear physically rested and relaxed?

# FUNCTIONAL HEALTH PATTERNS

## Sleep Rest Pattern.

- Insomnia
- Readiness for enhanced sleep
- Sleep deprivation



# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Self-Perception-Self-Concept Pattern its focused on the person's attitudes toward self, including identity, body image, and sense of self-worth.

- Attitudes about self
- Perceived abilities, worth, self-image, emotions
- Body posture and movement, eye contact, voice and speech patterns

# PATTERN OF SELF PERCEPTION & SELF CONCEPT

- Is there anything unusual about this person's appearance?
- Does this person seem comfortable with her/his appearance?
- Describe this person's feeling state?

# FUNCTIONAL HEALTH PATTERNS

## Self-Perception-Self-Concept Pattern

- Anxiety
- disturbed Body image
- Chronic low self-esteem
- Death anxiety
- Disturbed personal identity
- Fear
- Hopelessness
- Powerlessness

# FUNCTIONAL HEALTH PATTERNS

- Readiness for enhanced hope
- Readiness for enhanced power
- Readiness for enhanced self-concept
- Risk for compromised human dignity
- Risk for loneliness
- Risk for powerlessness
- Risk for situational low self-esteem
- Risk for [/actual] other-directed violence
- Risk for [actual/] self-directed violence
- Situational low self-esteem

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Role-Relationship Pattern. It's focused on the person's roles in the world and relationships with others. Evaluated Satisfaction with roles, role strain, or dysfunctional relationships.

- Perception of major roles, relationships and responsibilities in current life situation
- Satisfaction with or disturbances in roles and relationships

## 8. ROLE - RELATIONSHIP PATTERN

- How does this person describe her/ his various roles in life?
- Has, or does this person now have positive role models for these roles?
- Which relationships are most important to this person at present?
- Is this person currently going through any big changes in role or relationship? What are they?

# FUNCTIONAL HEALTH PATTERNS

## Role-Relationship Pattern.

- Caregiver role strain
- Chronic sorrow
- Complicated grieving
- Dysfunctional family processes: alcoholism (substance abuse)
- Grieving
- Impaired social interaction
- Impaired verbal communication
- Ineffective role performance
- Interrupted family processes
- Parental role conflict

# FUNCTIONAL HEALTH PATTERNS

- Readiness for enhanced communication
- Readiness for enhanced family processes
- Readiness for enhanced parenting
- Relocation stress syndrome
- Risk for caregiver role strain
- Risk for complicated grieving
- Risk for impaired parent/infant/child attachment
- Risk for relocation stress syndrome
- Social isolation



# FUNCTIONAL HEALTH PATTERNS CONCEPT MAPS

Sexuality and Reproduction. It's focused on the person's satisfaction or dissatisfaction with sexuality patterns and reproductive functions.

- Satisfaction with sexuality or sexual relationships
- Reproductive pattern
- Female menstrual and peri-menopausal history

## 9. SEXUALITY - REPRODUCTIVE PATTERN

- Is this person satisfied with her/ his situation related to sexuality?
- How have the person's plans and experience matched regarding having children?
- Does this person have any disease/ dysfunction of the reproductive system?

# FUNCTIONAL HEALTH PATTERNS

## Sexuality and Reproduction.

- Ineffective sexuality patterns
- Rape-trauma syndrome
- Sexual dysfunction

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Coping-Stress Tolerance Pattern. its focused on the person's perception of stress and coping strategies Support systems, evaluated symptoms of stress, effectiveness of a person's coping strategies.

- Capacity to resist challenges to self-integrity
- Methods of handling stress
- Support systems
- Perceived ability to control and manage situations

# 10. PATTERN OF COPING & STRESS TOLERANCE

- How does this person usually cope with problems?
- Do these actions help or make things worse?
- Has this person had any treatment for emotional distress?

# FUNCTIONAL HEALTH PATTERNS

## Coping-Stress Tolerance Pattern

- Compromised family coping
- Defensive coping
- Disabled family coping
- Impaired adjustment
- Ineffective community coping
- Ineffective coping
- Ineffective denial
- Post-trauma syndrome

# FUNCTIONAL HEALTH PATTERNS

- Readiness for enhanced community coping
- Readiness for enhanced coping
- Readiness for enhanced family coping
- Risk for self-mutilation
- Risk for suicide
- Risk for post-trauma syndrome
- Self-mutilation
- Stress overload

# FUNCTIONAL HEALTH PATTERNS

## CONCEPT MAPS

Value-Belief Pattern it's focused on the person's values and beliefs.

- Values, goals or beliefs (including spirituality) that guide choices or decisions
- Perceived conflicts in values, beliefs or expectations that are health related



## 11. PATTERN OF VALUES & BELIEFS

- What principals did this person learn as a child that are still important to her/ him?
- Does this person identify with any cultural, ethnic, religious, regional, or other groups?
- What support systems does this person currently have?

# FUNCTIONAL HEALTH PATTERNS

## Value-Belief Pattern

- Impaired religiosity
- Moral distress
- Readiness for enhanced religiosity
- Readiness for enhanced spiritual well-being
- Risk for impaired religiosity
- Risk for spiritual distress
- Spiritual distress

# FUNCTIONAL HEALTH PATTERNS

## Organizing Data According to Gordon's 11 Functional Health Patterns

Functional Health Pattern	Pattern Describes	Examples
Health Perception/ Health Management	Client's perceived pattern of health and well-being and how health is managed.	Compliance with medication regimen, use of health promotion activities such as regular exercise, annual check-ups.
Nutritional-Metabolic	Pattern of food and fluid consumption relative to metabolic need and pattern; indicators of local nutrient supply.	Condition of skin, teeth, hair, nails, mucous membranes; height and weight.

# FUNCTIONAL HEALTH PATTERNS

Functional Health Pattern	Pattern Describes	Examples
Elimination	Patterns of excretory function (bowel, bladder, and skin). Includes client's perception of normal“ function.	Frequency of bowel movements, voiding pattern, pain on urination, appearance of urine and stool.
Activity - Exercise	Patterns of exercise, activity, leisure, and recreation.	Exercise, hobbies. May include cardiovascular and respiratory status, mobility, and activities of daily living.
Cognitive-Perceptual	Sensory-perceptual and cognitive patterns.	Vision, hearing, taste, touch, smell, pain perception and management; cognitive functions such as language, memory, and decision making.

# FUNCTIONAL HEALTH PATTERNS

Functional Health Pattern	Pattern Describes	Examples
Sleep-Rest	Patterns of sleep, rest, and relaxation.	Client's perception of quality and quantity of sleep and energy, sleep aids, routines client uses.
Self-Perception/ Self Concept	Client's self-concept pattern and perceptions of self.	Body comfort, body image, feeling state, attitudes about self, perception of abilities, objective data such as body posture, eye contact, voice tone.
Role-Relationship	Client's pattern of role engagements and relationships.	Perception of current major roles and responsibilities (e.g., father, husband, salesman); satisfaction with family, work, or social relationships.

# FUNCTIONAL HEALTH PATTERNS

Functional Health Pattern	Pattern Describes	Examples
Sexuality-Reproductive	Patterns of satisfaction and dissatisfaction with sexuality pattern; reproductive pattern.	Number and histories of pregnancy and childbirth; difficulties with sexual functioning; satisfaction with sexual relationship.
Coping / Stress Tolerance	General coping pattern and effective of the pattern in terms of stress tolerance.	Client's usual manner of handling stress, available support systems, perceived ability to control or manage situations.
Value - Belief	Patterns of values, beliefs (including spiritual), and goals that guide client's choices or decisions.	Religious affiliation, what client perceives as important in life, value-belief conflicts related to health, special religious practices.

# CRITICAL THINKING

# OBJECTIVES

- By the end of the lesson, the student will be able to:-
  - i. Define critical thinking.
  - ii. State the importance of critical thinking in nursing.
  - iii. Describe the skills applied in critical thinking.
  - iv. Outline the factors affecting critical thinking.
  - v. Explain the attitudes that foster critical thinking.
  - vi. Describe the application of critical thinking in nursing practice.



- What makes the thinking of a nurse different from a dentist or an engineer?
- It is how we view the patient and the types of problems we deal with in practice.

If we can't think critically,  
we become part of problem!

# DEFINITION

- Is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and / or evaluating information gathered from, or generated by observation, experience, reflection, reasoning, or communication as a guide to belief and action (Paul, 2001).
- Purposeful thinking that aims to make judgments based on evidence (Alfaro-LeFevre, 2000)

# Definitions Of Critical Thinking

It is thinking that defines its purposes and goals well; thinking that frames a question or problem precisely; thinking that carefully checks information for its completeness and relevance; thinking that is sensitive to ideas and concepts; thinking that can trace implications and consequences; thinking that can appreciate multiple perspectives and ways of looking at things. It is, in short, thinking done in such a way as to be disciplined and self-correcting. (Paul, 1995)

# DEFINITION

- Critical thinking underlies independent and interdependent decision-making. It includes questioning, analysis, synthesis, interpretation, inference, inductive and deductive reasoning, intuition, application and creativity (American Association of Colleges of Nursing, 1998).

# Why Focus on Critical Thinking?

- The nurses are expected to accept more responsibilities, collaborate with diverse individuals, and make more independent decisions.
- Nurses are often involved in complex situations that require in-depth thinking.
- We must view ourselves as knowledge workers, who are thought-oriented rather than task orientated.
- Critical Thinking is the key to prevent and resolve problems.

# IMPORTANCE OF CRITICAL THINKING

- Critical thinking in nursing is an essential tool to effectively treat patients. Nurses are expected to use critical thinking to solve client problem and make better decisions.
- Critical thinking, problem solving and decision making are interrelated processes.
- Critical thinking is essential to safe, competent, skillful nursing practice.

# IMPORTANCE OF CRITICAL THINKING

- Nurses use knowledge from other subjects and fields e.g nutrition, physiology
- Nurses deal with change in stressful environments. Treatments, medications and technology change constantly, therefore routine actions may not be adequate.
- Critical thinking enables the nurse to recognize important cues and adapt interventions to meet specific client needs.



# IMPORTANCE OF CRITICAL THINKING

- Nurses make important decisions e.g they must use good judgment to decide which observations must be reported to the physician immediately and which ones can be addressed later.

# Novice Thinking Compared with Expert Thinking

## Novice Nurse

- Knowledge is stored separate facts.
- Focus much on actions.
- Need clear-cut rules.

## Expert Nurse

- Knowledge is highly organized and structured.
- Thinking through things before acting.
- Know when to bend the rules.

# Novice Thinking Compared with Expert Thinking (Continued)

## Novice Nurse

- Are unaware of resources.
- Anxious & lack of confidence.
- Focus more on procedure than client responses.
- Collect data more superficially.
- Tend to follow policies by route.

## Expert Nurse

- Are aware of resources.
- Confident and focus.
- Focus on both parts. Know when to skip steps or do 2 steps together.
- Collect more relevant & in depth data.
- Analyze policies & ways to improve them.

# CREATIVITY

- Creativity is a major component of critical thinking. It is thinking that results in the development of new ideas and products.
- Creative thinkers must have knowledge of the problem e.g knowledge of normal growth and development will help build on the knowledge and come up with a creative solution.

# CREATIVITY

Using creativity, nurse:-

- Generate many ideas rapidly
- Are generally flexible (able to change viewpoints)
- Create original solutions to problems
- Tend to be independent and self-confident even when under pressure
- Demonstrate individuality

# The Nature of Critical Thinking

## Characteristics

- Critical Thinking is Rational.
- Critical Thinking is Reflective.
- Critical Thinking is inquisitive.
- Critical Thinking is Autonomous.

# FACTORS AFFECTING CRITICAL THINKING

- Many factors influence thinking e.g cognitive function, physical state, amount of sleep or rest, nutrition and fluid and electrolyte balances.
- The person's age, gender, developmental level, learning style, anxiety, attitude and preparation level also affect thinking.

# SKILLS IN CRITICAL THINKING

## 1. CRITICAL ANALYSIS

- It is the application of a set of questions to a particular situation or idea to determine essential information and ideas and discard superfluous information and ideas.



# SKILLS IN CRITICAL THINKING

## Socratic questions:

- Socratic questioning is a technique one can use to look beneath the surface, recognize and examine assumptions, search for inconsistencies, examine multiple points of view and differentiate what one knows from what merely believes.

# SKILLS IN CRITICAL THINKING

## 2. INDUCTIVE REASONING

- Generalizations are made from a set of facts or observations. When viewed together, certain bits of information suggest a particular interpretation. e.g the nurse who observes that a client has dry skin, poor turgor, sunken eyes and dark amber urine may make a generalization that the client appears dehydrated.

# SKILLS IN CRITICAL THINKING

## 3. DEDUCTIVE REASONING

- Is reasoning from the general to the specific. The nurse starts with a conceptual framework and makes descriptive interpretations of the client's needs basing on that frame work e.g basing Maslow's hierarchy of needs the nurse can categorize the client's problems in terms of elimination, nutrition and protection needs.

# Critical Thinking Attitude

- Fair-mindedness
- Intellectual humility
- Intellectual integrity
- Intellectual perseverance
- Intellectual empathy
- Intellectual courage
- Intellectual curiosity

# ATTITUDES THAT FOSTER CRITICAL THINKING

- Independence of thought – critical thinking requires that individuals think for themselves.
- Fair-mindedness – critical thinkers assess all view-points with the same standards and not basing their judgments on personal or group bias or prejudice.
- Insight onto egocentricity and sociocentricity – critical thinkers are open into the possibility that their personal biases or social pressures and customs could duly affect their thinking.

# ATTITUDES THAT FOSTER CRITICAL THINKING

- Intellectual humility and suspension of judgment – means having an awareness of the limits of one's own knowledge
- Intellectual courage – with an attitude of courage, one is willing to consider and examine fairly one's own ideas and views.
- Integrity – requires that individuals apply the same rigorous standards of proof to their own knowledge and beliefs as they apply to the knowledge and beliefs of others.
- Perseverance – this determination enables them clarify concepts and sort out related issues in spite of difficulties and frustrations.

# ATTITUDES THAT FOSTER CRITICAL THINKING

- Confidence in reasoning – well reasoned thinking will lead to trustworthy conclusions.
- Interest in exploring both thoughts and feelings – a critical thinker knows that emotions can influence thinking and that often feelings underlie thoughts.
- Curiosity – the internal conversation going on within the mind of a critical thinker is filled with questions.

# STANDARDS AND ELEMENTS OF CRITICAL THINKING

## UNIVERSAL INTELLECTUAL STANDARDS

STANDARD

SAMPLE QUESTION

Clarity

What is an example of this?

Accuracy

How can I find out if that is true?

Relevance

How does that help me with the issue?

Logicalness

Does that follow from the evidence?

Breadth

Do I need to consider another point of view?



# STANDARDS AND ELEMENTS OF CRITICAL THINKING

## UNIVERSAL INTELLECTUAL STANDARDS

STANDARD

SAMPLE QUESTION

Precision

Can I be more specific?

Significance

Which of these facts is most important?

Completeness

Have I missed any important aspects?

Fairness

Am I considering the thinking of others?

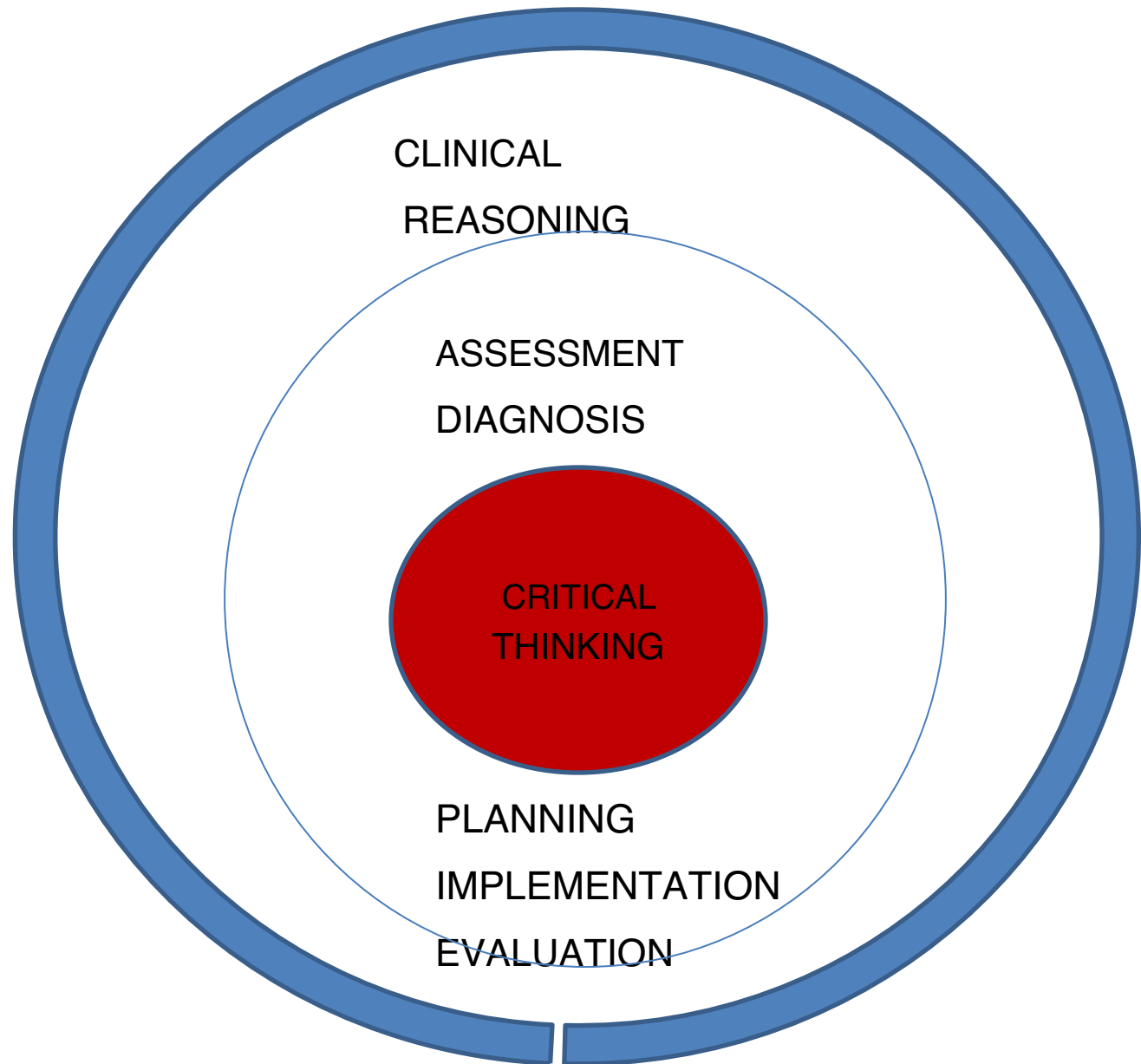
Depth

What makes this a difficult problem?

## APPLYING CRITICAL THINKING TO NURSING PRACTICE

- Nurses function effectively some part of everyday without thinking critically e.g selecting which uniform to wear or deciding what to eat. However, the high order skills of critical thinking are put in play as soon as a new idea is encountered or a less-than-routine decision must be made.
- The Nursing Process is a systematic, rational method of planning and providing individualized care. Paul and Elder (1995) identified elements of thought and applied to the nursing process.

# ROLE OF CRITICAL THINKING IN NURSING



# APPLYING CRITICAL THINKING TO NURSING PRACTICE

## PROBLEM SOLVING

- The nurse obtains information that clarifies the nature of the problem and suggests possible solutions.
- Problem solving for one situation contributes to the nurse's body of knowledge for problem solving in a similar situation.

## WAYS

1. Trial and error – trying a number of approaches
2. Intuition – experience

# APPLYING CRITICAL THINKING TO NURSING PRACTICE

## DECISION MAKING

- Nurses make decision in the course of problem solving or other situations e.g confidentiality, prioritizing, time management.
- Is a critical thinking process for choosing the best actions to meet the desired goal.

# STEPS TO DECISION - MAKING

1. Identify the purpose
2. Set the criteria
3. Weight the criteria
4. Seek alternatives
5. Examine alternatives
6. Project – what might go wrong
7. Implement
8. Evaluate the outcome.

The decision –making process and the nursing process share similarities and the nurse uses decision-making in all the steps of the process.

# COMPARISON BETWEEN NURSING PROCESS AND DECISION-MAKING

NURSING PROCESS	DECISION-MAKING
Assess	Identify the purpose
Diagnose	
Plan	Set the criteria Weight Seek alternatives Examine alternatives Project
Implement	Implement
Evaluate	Evaluate the outcome

# QUESTION GUIDE TO LOGICAL THINKING

Described by Iyer et al., (1995). These questions are in sequence:

- \* What is the issue?
  - \* What information do I need and how do I get it?
  - \* Are my data valid?
  - \* What do the data mean, based on the facts?
  - \* What should I do?
  - \* Are there other questions I should ask?
  - \* Is this the best way to deal with the issue?
- 
- The nursing process is generally viewed as a tool for planning and providing patient care.



# PARTS OF THINKING (Paul, 2001)

All reasoning

1. Has a purpose
2. Is an attempt to figure something out
3. Is based on assumptions
4. Is done from some point of view
5. Is based on data, information and evidence
6. Is expressed through, and shaped by concepts and ideas
7. Leads somewhere and has implications and consequences.

# Pitfalls of critical thinking

## Illogical Process

1. Critical thinking fails as a process when logic is not used. A common fallacy arises from using a circular argument. For example, a nurse might write the nursing diagnosis “Ineffective coping, as evidenced by inability to cope.” This does not define the problem, it simply makes a circle.
2. Another illogical process is called appeal to tradition. This is the argument that we have “always done it this way.” New strategies and creative approaches are ignored.
3. Errors in logic also occur when the thinker makes hasty generalizations without considering the evidence. The critical thinker does not jump to conclusion.

# Pitfalls of critical thinking

## Bias

1. Everyone has biases. Critical thinkers examine their biases and do not allow them to compromise the integrity of their thinking processes.
2. Biases can interfere with patient care. For example, if we believe patients with alcoholism are manipulative, when the patient complains of anxiety, we ignore their complaint and miss the signs of delirium tremens.

# Pitfalls of critical thinking

## Closed-Mindedness

1. The close-minded individual ignores alternative points of view.
2. Input from experts, patients, and significant others is ignored.
3. This results in limited options and the decreased use of innovative ideas.

# Clinical reasoning

- Clinical reasoning [?] a specific term [?] usually refers to ways of thinking about patient care issues (determining, preventing, and managing patient problems).
- For reasoning about other clinical issues (e.g., teamwork, collaboration, and streamlining work flow), nurses usually use the term critical thinking .

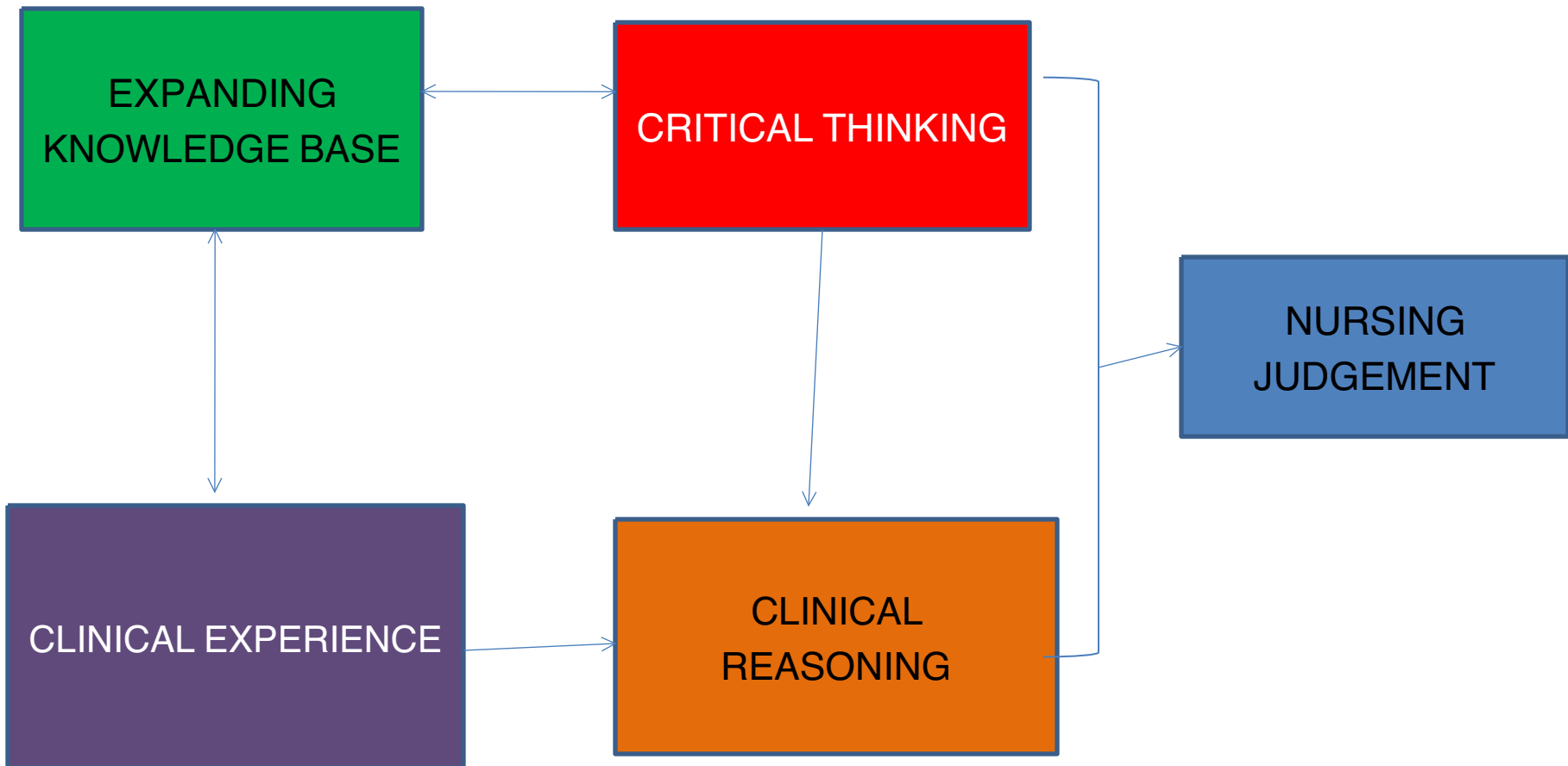
# Clinical judgment

- Clinical judgment refers to the result (outcome) of critical thinking or clinical reasoning — the conclusion, decision, or opinion you make.

# NURSING JUDGEMENTS

- Judgments lead to effective care planning, interventions and intervention revision based on the evaluation of care.
- Every client's care must be individualized.
- Thinking critically will help avoid applying inaccurate knowledge from one situation to another.

# MODEL FOR DEVELOPMENT OF NURSING JUDGMENT





The nurse can apply the skill of clinical reasoning to determine the problem. These decisions are based on sound reasoning.

- **Explanation** – The ability to clearly and concisely explain one's conclusions. The nurse should be able to provide sound rationale for his/her answers.
- **Self-regulation** – Involves monitoring one's own thinking. This means reflecting on the process leading to the conclusions. The individual should self-correct the thinking process as needed, being alert for biases and incorrect assumptions.

# Critical Thinking And Nursing Process

- Critical thinking is the thought process underlying judgments and decisions made throughout the nursing process.

# CRITICAL THINKING BEHAVIOURS FROM THE NATIONAL LEAQUE OF NURSES (NLN)

## ASSESSMENT

Ask relevant questions

Explore ideas

Validate data

Recognize issues and concerns

## ANALYSIS

Interpret evidence

Consider view points

Recognize assumptions

Identify missing information

Use reflective skepticism

Examine alternatives

Evaluate worth of evidence

Detect bias

Consider logical/ ethical standards

# CRITICAL THINKING BEHAVIOURS FROM THE NATIONAL LEAQUE OF NURSES (NLN)

## PLANNING

Validate/ Generate Hypothesis  
Predict consequences  
Use deductive/ inductive reasoning  
Support conclusion with evidence  
Set priorities  
Plan approaches

## IMPLEMENTATION

Modify/ individualize approaches  
Apply research in practice

## EVALUATION

Determine outcome attainment  
Revise plans  
Determine perception of results

# Critical Thinking And Nursing Process

## Nursing Process

## Critical Thinking Cognitive Skills

### Assessment

- \* Identifying an organized and comprehensive approach to discovery
- \* Identifying cues and making inferences
- \* Validating data
- \* Clustering data

### Diagnosis

- \* Identifying patterns
- \* Drawing diagnostic conclusions

# Critical Thinking And Nursing Process

## Nursing Process

Planning

## Critical Thinking Cognitive Skills

- \* Setting priorities
- \* Establishing evaluative criteria
- \* Generating solutions

Implementation

- \* Testing hypotheses

Evaluation

- \* Making criterion-based evaluations

# Questions to Evaluate Your CT Potential

- Have I examined how my values and beliefs affect my thinking?
- How confident am I in my ability to reason?
- How well do I communicate and get along with others?
- Am I able to overcome personal desires and beliefs in favor of thinking about what's in the key players' best interest?
- Do I have effective reading and learning skills?

# Questions to Evaluate Your CT Potential

- How secure am I asking for clarification?
- How open am I to new ideas and viewpoints that differ from my own?
- Am I aware of my usual thinking and learning habits?
- Do I persist to find answers and solutions?
- How well do I express myself in writing?



# APPLYING CRITICAL THINKING TO NURSING PRACTICE

- A nurse manager faced with the common scenario of creating a time schedule that covers the Christmas and New Year holidays reviews the past practice on the unit. The practice on the unit is that staff must work one or the other holiday and preferences are based on seniority. Junior members of the staff do not receive their preferred holidays off resulting in dissatisfaction. In reflecting on this situation, the manager recognizes that senior members of the staff always being granted their holiday preferences for days off disadvantages junior members of the staff resulting in dissatisfaction.

# APPLYING CRITICAL THINKING TO NURSING PRACTICE

- As an evening supervisor, I stopped to check on a new graduate who was in charge for the first time. She appeared to be “in over her head,” nervous and running around. Calmly, I asked how things were going. She replied, “Fine, except for the man in Room 203. His temperature was 104 ° an hour ago. We drew blood cultures, gave aspirin, and started him on antibiotics.” I asked, “What ’ s the temperature now?” She replied, “He ’ s not due until 8 pm ” (3 hours later).

# Concept mapping

- A concept map care plan is a diagram of patient problems, supporting data, interventions and evaluations.
- These maps are used to organize patient data, analyze relationships in the data, and enable you to take a holistic view of the patient's situation.
- Concept mapping requires critical thinking to analyze relationships in clinical data.

# Concept mapping

- Critical thinking and clinical reasoning are used to formulate clinical judgments and decisions about nursing care.
- The important ideas that must be linked together during concept map care planning are the medical and nursing diagnoses, along with all the pertinent clinical data.
- Through concept mapping of diagnoses and clinical data, one can evaluate what they know about the care of the patient and what further information they need in order to provide safe and effective nursing care.

# THE NURSING PROCESS

# LESSON OBJECTIVES

By the end of the lesson, the student will be able to:-

- Define the nursing process
- State the importance of the nursing process
- Describe the steps of the nursing process
- Draw a nursing care plan

# Nursing Process

- Specific to the nursing profession
- A framework for critical thinking

It's purpose is to:

“Diagnose and treat human responses to actual or potential health problems”

# DEFINITION

- An evolving procedure consisting of five components by which a person's health status and needs are identified (assessment and diagnosis), plans are developed (planning), care is delivered (implementation), and outcomes are evaluated (evaluation) as the physical, social, and emotional problems of the person are resolved and/or new problems are identified.



# Nursing Process

- Organized framework to guide practice
- Problem solving method - client focused
- Systematic- sequential steps
- Goal oriented- outcome criteria
- Dynamic-always changing, flexible
- Utilizes critical thinking processes

# Nursing Process

It can be understood as:-

- A form of documentation
- As a means of organizing work, that is patient allocation or primary nursing
- As an educational tool to help achieve patient centred nursing
- As a philosophy to help nursing attain professional status by offering an alternative to the medical model.

# Scientific Method of problem solving

- Identify the problem
- Collect data
- Form hypothesis
- Plan of action
- Hypothesis testing
- Interpret results
- Evaluate findings

- Nursing process is very much like the scientific method of problem solving.
- Nursing process is **UNIQUE** to the nursing profession

# Characteristics of the Process

- It is a systematic, client – centred method for structuring the delivery of nursing care.
- It entails gathering and analyzing data in order to identify client strengths and potential or actual health problems and developing and continually reviewing a plan of nursing interventions to achieve mutually agreed outcomes.
- It is cyclical – components follow a logical sequence.

# Characteristics of the Process

- Is interpersonal and collaborative. It requires the nurse to communicate directly and consistently with clients and families to meet their needs.
- It is used as a framework for nursing care in all types of health care settings with clients of all age groups.
- Nurses must use a variety of critical – thinking skills to carry out the nursing process.

# Characteristics of the Process

- This process is cyclical. While the phases are ongoing, the actual process can end any time if the patient's problems are solved.
- The method is designed to be applied to any individual, family, or community need.
- The nursing process is used for medical problems and also to help with emotional or social needs of patients as well.
- The nursing process is goal-oriented. It is used to make client-centered, measurable, realistic goals for individual or community wellness improvement.

# Nursing Process Characteristics

- Orderly, step-by-step process
- Client is evaluated
- Data are collected and analyzed
- Plan of care is determined and set into motion
- Client is monitored, evaluated
- Care plan is revised as needed
- Client centered
- Assists to plan according to client needs
- Client participates
- Promotes collaboration



# Advantages of Nursing Process

- Provides individualized care
- Client is an active participant
- Promotes continuity of care
- Provides more effective communication among nurses and healthcare professionals
- Develops a clear and efficient plan of care
- Provides personal satisfaction as you see client achieve goals
- Professional growth as you evaluate effectiveness of your interventions

# Advantages of Nursing Process

- Lets the nurse develop a plan of care for the client and gives the nurse direction
- Helps determine the client's problems and ways to help the client overcome these problems
- Based on 5 specific steps which need to be completed in order
- Based on goals to determine if client's needs have been met. Designed on monitoring the outcomes of the process
- Continually looked at, reviewed, and changed based on the client's condition
- Guides the nurse to assist the client with reaching their greatest level of health

# IMPORTANCE OF THE NURSING PROCESS

- The nursing process enables the nurse to organize and deliver nursing care.
- The nursing process involves scientific reasoning.
- The nursing process is used to identify, diagnose and treat human responses to health and illness

# Benefits of the Nursing Process

- Improved quality of care
- Continuity of care
- Promotes client participation in care
- Delivery of care is organized, continuous, and systematic
- Efficient use of time and resources

# PURPOSE OF CARE PLANNING

- It is a legal document
- Shows accountability “The care plan is a document that identifies the care to be given, and a record that shows who planned and gave that care
- It should guide the work of others and be a basis for continuity of care
- Should show a logical and systematic flow of ideas through from the initial assessment to the final evaluation

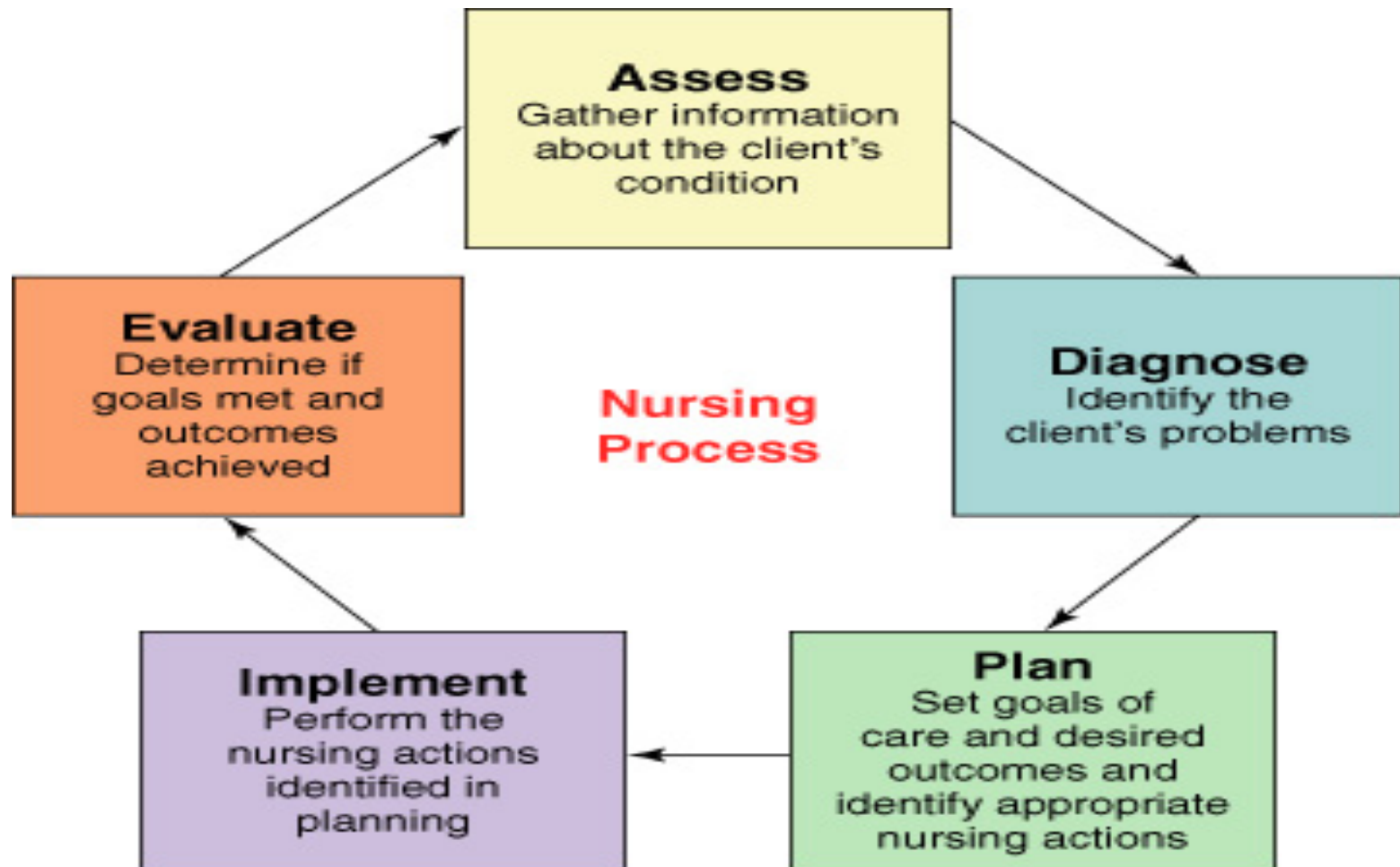
# PHASES OF THE NURSING PROCESS

- **ASSESSING** – collect data, organize, validate , document
- **DIAGNOSING** – analyze data, identify problems, risks and strengths,, formulate diagnostic statements.
- **OUTCOME IDENTIFICATION**
- **PLANNING** – prioritize problems/ diagnoses, formulate goals/ desired outcomes, select nursing interventions, write nursing orders.

# PHASES OF THE NURSING PROCESS

- **IMPLEMENTING** – reassess the client, determine the nurse’s need for assistance, implement the nursing interventions, supervise delegated care, document nursing activities
- **EVALUATING** – collect data related to outcomes, compare data with outcomes, relate nursing actions to client goals/ outcomes, draw conclusions about problem status, continue, modify or terminate the client’s care plan.

# The nursing process





# Assessment

- First step of the Nursing Process
- Gather Information/Collect Data
  - Primary Source - Client / Family
  - Secondary Source - physical exam, nursing history, team members, lab reports, diagnostic tests.....
  - Subjective -from the client (symptom)
    - “I have a headache”
  - Objective - observable data (sign)
    - Blood Pressure 130/80

# ASSESSMENT

## Sources of Data

### 1. Non verbal observation

- Sight - Physical, psychological (and social)
- Touch – Skin, temp, hydration, pulse/BP
- Sound - Breath wheeze, stridor
- Smell - breath
- body fluids infections, gangrene

# ASSESSMENT

## SOURCES OF DATA

### 2. Verbal Communication

- Patients/ clients
- Family and friends (Meaningful others)
- Nursing colleagues
- Medical colleagues
- Other members of multidisciplinary team

### 3. Written records

- G.P Letter
- Transfer letter
- Old notes

# Assessment-collecting data

- Nursing Interview (history)
- Health Assessment -Review of Systems
- Physical Exam
  - Inspection
  - Palpation
  - Percussion
  - Auscultation

# Assessment-collecting data

- Make sure information is complete & accurate
- Validate prn
- Interpret and analyze data  
Compare to “standard norms”
- Organize and cluster data

# Types of Assessments

- **Initial**
  - Performed within a specified time period
  - Establishes complete database
- **Problem-Focused**
  - Ongoing process integrated with care
  - Determines status of a specific problem
- **Emergency**
  - Performed during physiologic or psychologic crises
  - Identifies life-threatening problems
  - Identifies new or overlooked problems
- **Time-lapsed**
  - Occurs several months after initial
  - Compares current status to baseline

# ASSESSMENT

What components are needed for a successful assessment

- Good communication
- A systematic approach to data collection
- Interpretation based on nursing knowledge

# Nursing Diagnosis

- Second step of the Nursing Process
- Interpret & analyze clustered data
- Identify client's problems and strengths
- Formulate Nursing Diagnosis (NANDA : North American Nursing Diagnosis Association)-  
Statement of how the client is RESPONDING to an actual or potential problem that requires nursing intervention



# DIAGNOSIS

- A nursing diagnosis is a statement that describes the client's actual or potential response to health problem is licensed and competent to treat.
- Nursing diagnoses provide the basis for selection of nursing interventions to achieve outcome for which the nurse is accountable.

# Characteristics of Nursing Diagnoses

- Complement physician treatments
- Separate and distinct
- Structure of Nursing Diagnoses
- Nursing Dx is a problem statement of how the client is RESPONDING to a problem...it may be an actual or potential problem
- Interpreted data is clustered in according to body systems, risk factors, family factors, emotional factors etc.

# Types of Nursing Diagnoses

## Actual nursing diagnosis

- existing response to condition
- problem exists
- supporting signs and/or symptoms

## Risk Nursing Diagnoses

- Possible development of problem
- Has not occurred
- No signs or symptoms
- NANDA describes Risk Diagnosis as:  
“a clinical judgment made when a client is more vulnerable to develop the problem than others in the same or similar situations.”

# Types of Nursing Diagnoses

A wellness diagnosis

Describes human responses to levels of wellness in an individual, family or community that have a readiness for enhancement e.g readiness for enhanced family coping.

A possible nursing diagnosis

Evidence about a health problem is incomplete or unclear e.g possible social isolation related to unknown cause in an elderly lady admitted and has none visiting her.

A syndrome diagnosis

Associated with a cluster of other diagnoses e.g risk for disuse syndrome in bed-ridden patients.

# QUALIFIERS FOR DIAGNOSIS

- Acute= Severe but short duration
- Alter= a change from baseline
- Chronic= Lasting along time, recurring, constant
- Decrease= lessened
- Increase = greater in size
- Deficient=inadequate in amount, not sufficient
- Depleted= empty, exhausted of..
- Disturbed= agitated, interrupted
- Dysfunction=abnormal

# QUALIFIERS FOR DIAGNOSIS

- Excessive= Quantity is greater
- Impaired =made worse, damage
- Ineffective =Not producing the desired effect
- Potential for =powerful
- Risk =hazard, chance of loss
- Hypothermia= body temperature is reduced below normal
- Hyperthermia =body temperature is elevated above normal
- Enhanced = made greater, increase quality

# DIAGNOSIS

## NURSING DIAGNOSIS IS NOT MEDICAL DIAGNOSIS

- Nursing Dx

- describes the response to health problem

- Determined by the nurse

- Clinical judgment about the client

- Human responses to disease or treatment

- Medical Dx - Diagnoses disease

- Determined by physician

# Nsg Dx

vs

# MD Dx

- Within the scope of nursing practice
  - Identify responses to health and illness
  - Can change from day to day
- Within the scope of medical practice
  - Focuses on curing pathology
  - Stays the same as long as the disease is present



# Formulating a Nursing Diagnosis

- Composed of 3 parts:
- Problem statement- the client's response to a problem
- Etiology- what's causing/contributing to the client's problem
- Defining Characteristics- what's the evidence of the problem

# Nursing Diagnosis

- Problem( Diagnostic Label)-based on your assessment of client...(gathered information), pick a problem from the NANDA list...
- Etiology- determine what the problem is caused by or related to.
- Defining characteristics- then state as evidenced by (AEB) the specific facts the problem is based on...

# NANDA NURSING DIAGNOSES

- The purpose of NANDA is to define, refine and promote a taxonomy of nursing diagnostic terminology of general use to professional nurses.
- A taxonomy is a classification system or set of categories arranged on the basis of a single principle or set of principles.
- Diagnosing refers to the reasoning process.
- Diagnosis is a statement or conclusion regarding the nature of a phenomenon.

# NANDA NURSING DIAGNOSES

## COMPONENTS

- Problem (diagnostic label) and its definition.
- Etiology
- Defining characteristics.

# NANDA NURSING DIAGNOSES

## PROBLEM (DIAGNOSTIC LABEL) AND DEFINITION

- Describes the client's health problem or response for which nursing therapy is given.
- Describes the client's health status clearly and concisely.
- Purpose is to direct formation of client goals and desired outcomes.

# NANDA NURSING DIAGNOSES

## ETIOLOGY (RELATED FACTORS AND RISK FACTORS)

- Identifies one or more probable causes of the health problem, gives direction to the required nursing therapy and enables the nurse to individualize care.
- Differentiating among possible causes in the nursing diagnosis is essential because each may require different nursing interventions.

# NANDA NURSING DIAGNOSES

## DEFINING CHARACTERISTICS

- Are the cluster of signs and symptoms that indicate the presence of a particular diagnostic label.
- For actual nursing diagnosis, the defining characteristics are the client's signs and symptoms.
- For risk nursing diagnoses, the factors that cause the client to be more than "normally" vulnerable to the problem form the etiology of a risk nursing diagnosis.

# COMPONENTS OF NURSING DIAGNOSIS LABEL

DIAGNOSIS AND DEFINITION	ETIOLOGY/RELATED FACTORS	DEFINING CHARACTERISTICS
ACTIVITY INTOLERANCE		
<ul style="list-style-type: none"><li>• Insufficient physiological or psychological energy to endure or complete required or desired daily activities</li></ul>	<ul style="list-style-type: none"><li>• Bedrest or immobility</li><li>• Generalized weakness</li><li>• Imbalance between oxygen supply / demand</li><li>• Sedentary life style</li></ul>	<ul style="list-style-type: none"><li>• Verbal report of fatigue or weakness</li><li>• Abnormal heart rate or blood pressure response to activity</li><li>• ECG changes reflecting arrhythmias or ischaemia</li><li>• Exertional discomfort or dyspnoea</li></ul>



# DIAGNOSTIC PROCESS

- Uses the critical thinking skills of analysis and synthesis
- Used continuously by nurses
- Has 3 steps
  1. Analyzing data – compare data against standards; cluster cues; Identify gaps and inconsistencies
  2. Identifying health problems, risks and strengths

# DIAGNOSTIC PROCESS

## 3. Formulating diagnostic statements

- basic two-part statements (problem/etiology), the two parts are joined by the words related to rather than due to. Due to implies that one part causes the other part
- Basic three-part statements (problem/etiology/signs and symptoms)- cannot be used for risk diagnosis
- One part statements e.g wellness and syndrome nursing diagnosis; consist one label only; more specific e.g rape-trauma syndrome, readiness for enhanced parenting

# DIAGNOSTIC PROCESS

## VARIATIONS OF BASIC FORMATS

- Writing unknown etiology when the defining characteristics are present but the nurse does not know the cause or contributing factors
- Using the phrase complex factors when there are too many etiologic factors.
- Using the word possible to describe either the problem or the etiology
- Using secondary to divide the etiology into two parts, thereby making the statements more descriptive and useful
- Adding a second part to the general response to make it more specific e.g impaired skin integrity (left lateral ankle)

# DIAGNOSTIC PROCESS

## AVOIDING ERRORS IN DIAGNOSTIC REASONING

- Verify
- Build a good knowledge base and acquire clinical experience
- Have a working knowledge of what is normal – vital signs, lab tests, breath sounds
- Consult resources – literature, colleagues
- Base diagnoses on patterns – on behaviour over time rather than on an isolated incident
- Improve critical thinking skills – help to avoid errors in thinking e.g overgeneralization, stereotyping

# Planning

## Third step of the Nursing Process

- This is when the nurse organizes a nursing care plan based on the nursing diagnoses.
- Nurse and client formulate goals to help the client with their problems
- Expected outcomes are identified
- Interventions (nursing orders) are selected to aid the client reach these goals.

# PLANNING

Planning is a deliberative, systematic phase of the nursing process that involves decision making and problem solving.

## TYPES OF PLANNING

- Initial planning – on admission, the nurse who performs admission assessment develops a comprehensive care plan.
- Ongoing planning – done by all nurses who work with the client.
- Discharge planning – begins at first client contact and involves comprehensive and ongoing assessment to obtain information about the client's ongoing needs.

# PLANNING

Effective planning depends on the quality and comprehensiveness of the assessment

- Determine the problems
- Establish the risks and priorities - How ill are they?
- Can they breathe adequately (safe airway?)
- Are they in pain? (physical/ psychological)
- Can they maintain a safe environment? If not why not? (Drugs, drink, mental or psychological problem?)
- Noncompliance with medical advice

# PLANNING

## Goals

- Client centered
- Focus on the behavior
- Describe intended or desired change

## Expected Outcome

- Leads to fulfillment of goal
- Resolution of the problem
- Nursing Interventions
- Planned actions
- Promotes goal attainment



# PLANNING PROCESS

- Setting priorities
- Establishing client goals/ desired outcomes
- Selecting nursing interventions
- Writing nursing orders

# Planning – Begin by prioritizing client problems

- Prioritize list of client's nursing diagnoses using Maslow
- Rank as high, intermediate or low
- Client specific
- Priorities can change



# Goals are patient-centered and SMART

Specific  
Measurable  
Attainable  
Relevant  
Time Bound

Pt will walk 50 ft.

Pt will eat 75% of meal

Pt will be OOB 2-4hrs

Pt will maintain HR<100

Pt will state pain level is acceptable 6 (0-10)

# PURPOSE OF DESIRED OUTCOME/ GOAL

1. Provide direction for planning nursing interventions.
2. Serve as criteria for evaluating client progress.
3. Enable the client and nurse to determine when the problem has been resolved.
4. Help motivate the client and nurse by providing a sense of achievement.

# Planning

## Developing a goal and outcome statement

- Goal and outcome statements are client focused.
- Worded positively
- Measurable, specific observable, time-limited, and realistic
- Goal = broad statement
- Expected outcome = objective criterion for measurement of goal

# Planning

## Developing a goal and outcome statement

### EXAMPLE

- **Goal:**  
Client will achieve therapeutic management of disease process.....
- **Outcome Statement:**  
B/P readings of 110-120 / 70-80 and client statement of understanding importance of dietary sodium restrictions by day of discharge.

# PURPOSE OF DESIRED OUTCOME/ GOAL

NURSING DIAGNOSIS	GOALS	DESIRED OUTCOMES
Impaired physical mobility: inability to bear weight on left leg related to inflammation of knee joint.	Improved mobility Ability to bear weight on left leg	Ambulate with crutches Stand without assistance by the end of the month.
Ineffective airway clearance related to poor cough effort, secondary to incision pain and fear of damaging sutures	Effective airway clearance	Lungs clear to auscultation during the entire post-operative period No cyanosis by 12 hours post-operation Will demonstrate good cough effort within 24 hours after surgery.

# Planning-select interventions

- Interventions are selected and written.
- The nurse uses clinical judgment and professional knowledge to select appropriate interventions that will aid the client in reaching their goal.
- Interventions should be examined for feasibility and acceptability to the client
- Interventions should be written clearly and specifically.



# Interventions – 3 types

- Independent ( Nurse initiated )- any action the nurse can initiate without direct supervision
- Dependent ( Physician initiated )-nursing actions requiring MD orders
- Collaborative- nursing actions performed jointly with other health care team members

# NURSING INTERVENTIONS TO ADDRESS DIFFERENT ETIOLOGIES

DIAGNOSTIC LABEL (PROBLEM)	ETIOLOGY	NURSING INTERVENTION
CONSTIPATION	Long-term laxative use	Develop a plan for gradual withdrawal from the laxatives; teach components of high fiber diet
	Inactivity and insufficient fluid intake	Develop an exercise regimen that the client can follow at home; help the client develop a plan for including sufficient amounts of fluids in his diet
INEFFECTIVE BREASTFEEDING	Breast engorgement	Teach massage of breasts before feeding; use hot packs before nursing
	Inexperience and lack of knowledge	Teach to feed baby on demand; demonstrate different holding positions for feeding

# Implementation

- The fourth step in the Nursing Process
- This is the “Doing” step
- Carrying out nursing interventions (orders) selected during the planning step
- This includes monitoring, teaching, further assessing, reviewing NCP, incorporating physicians orders and monitoring cost effectiveness of interventions
- Utilize nursing intervention classification (NIC) as standard

# IMPLEMENTATION

- Consists of doing and documenting the activities that are the specific nursing actions needed to carry out the interventions (or nursing orders).
- Provides the actual nursing activities and client responses that are examined during the final phase.

# IMPLEMENTATION

## Executing the care plan

- Interventions are performed
- Assessment before, during, and after
- Report and document

## Includes:

- **A** Putting the care plan into action
- **A** Carrying out planned interventions
- **A** Assessing, reporting, documenting

# Five activities of the implementing phase

## Five Activities of the Implementing Phase

- Reassessing the client
- Determining the nurse's need for assistance
- Implementing nursing interventions
- Supervising delegated care
- Documenting nursing activities

# IMPLEMENTATION

## IMPLEMENTING SKILLS

- Cognitive/ intellectual skills – include problem solving, decision-making, critical thinking and creativity.
- Interpersonal skills – are all of the activities, verbal and nonverbal, people use when interacting directly with each other.
- Technical skills – are ‘hands-on’ skills/ tasks/procedures/psychomotor skills.

# IMPLEMENTATION

## PROCESS OF IMPLEMENTING

### INCLUDES:-

- Reassessing the client
- Determining the nurse's need for assistance
- Implementing the nurse's interventions
- Supervising the delegated care
- Documenting the nursing activities



# IMPLEMENTATION

## GUIDELINES

- Base nursing interventions on scientific knowledge, nursing research and evidence-based practice.
- Clearly understand the orders to be implemented and question any that are not understood.
- Adapt activities to individual client.

# IMPLEMENTATION

- Implement safe care e.g infection prevention
- Provide teaching, support and comfort.
- Be holistic
- Respect the dignity of the client and enhance the client's self-esteem; encourage clients to make own decisions
- Encourage clients to participate actively in implementing the nursing interventions.

# RATIONALE

- A rationale is the scientific principle given as the reason for selecting a particular nursing intervention.

# Evaluation- To determine effectiveness of NCP

- Final step of the Nursing Process but also done concurrently throughout client care
- A comparison of client behavior and/or response to the established outcome criteria
- Continuous review of the nursing care plan
- Examines if nursing interventions are working
- Determines changes needed to help client reach stated goals.

# EVALUATION

Evaluation is a planned, ongoing, purposeful activity in which clients and health professionals determine:-

- a) The client's progress toward achievement of goals/outcomes
- b) The effectiveness of the nursing care plan.

Conclusions drawn from evaluation determine whether the nursing interventions should be terminated, continued or changed.

# EVALUATION

- MENTAL - On going throughout implementation
- WRITTEN (this should preferably be done with the patient present in order to get accurate feedback)
- Must be carried out at least twice in 24 hours
- And whenever any incident occurs. (date, time
- signature)
- Write a general statement about patient's condition
- (better, same, worse)
- Evaluate each care plan in turn and by number

# EVALUATION

- Client is evaluated
- Care plan is evaluated
- Goal attainment is determined
- Cognitive Skills

## Nurses Use:

- • Decision making
- • Critical thinking
- • Problem solving

# Evaluation Purpose

- To estimate effectiveness of care
- To estimate quality of care
- To estimate client responses
- To determine if the care plan is working
- To determine how well the care plan is working



# EVALUATION

## COMPONENTS

- Collecting data related to the desired outcomes
- Comparing the data with outcomes
- Relating nursing activities to outcomes
- Drawing conclusions about problem status
- Continuing, modifying or terminating the nursing care plan.

# Characteristics of Evaluation

- Ongoing
- Continues as long as care is provided
- Client responses are compared
- Focuses on relationship
- Success of plan is judged

# Evaluation

Factors that impede goal attainment:

- Incomplete database
- Unrealistic client outcomes
- Nonspecific nursing interventions
- Inadequate time for clients to achieve outcomes.

# WRITING A CARE PLAN

Think about

- Who is it for ?(The patient and other members of nursing team)
- What are the short term and long term goals?
- How can you determine that you have reached the goals? (measurable)
- How will the patient know he/she has achieved the goals? (realistic)
- Who is involved in the delivery of the care? (The patient (and family), yourself, the nursing team, medical staff, multidisciplinary team, labs, investigations, procedures etc)
- How quickly is the problem likely to change – How soon will you need to reevaluate the plan?

# WRITING A CARE PLAN

## GUIDELINES

1. Date and sign the plan – this is essential for evaluation, review and future planning.
2. Use category headings – Nursing Dx. Goals, Nursing intervention
3. Use standardized medical/ English symbols e. bd, H<sub>2</sub>O
4. Be specific – to help in clarifying issues.
5. Refer to procedure books or other references other rather than writing all the steps in a written plan.

# WRITING A CARE PLAN

6. Tailor the plan to the unique characteristics of the client by ensuring that the client's choices e.g preferences about times of care and the methods used are included.
7. Ensure that the plan incorporates preventive and health maintenance aspects as well as restorative.
8. Ensure that the plan contains interventions for ongoing assessment of the client.
9. Include collaborative and coordination activities in the plan.
10. Include plans for the client's discharge and home care needs.

# NURSING ORDERS

Nursing orders are instructions for the specific individualized activities the nurse performs to help the client meet established health care goals. How detailed the order is depends on the health personnel who will carry out the order.

## COMPONENTS

- Date
- Action verb e.g monitor
- Content area – what and where of the order
- Time element – when, how long, how often
- Signature – accountability and legal significance

# Planning for Nursing Care

Nursing Dx	Expected Outcome	Nursing Plan/ Nursing Order
Pain related to Incisional Swelling	-Pain decrease by 3/10 -Respiratory expansion	1. Drug administered (pethidine 50mg) IM 2. Instruct patient in relaxation exercise. 3. Encourage patient to log roll when turning.



# CRITICAL THINKING IN THE NURSING PROCESS

## NURSING PROCESS PHASE

## CRITICAL THINKING ACTIVITIES

### ASSESSING

- Making reliable observations
- Distinguishing relevant from irrelevant data
- Distinguishing important from unimportant data
- Validating data
- Organizing data
- Categorizing data according to framework
- Recognizing assumptions

# CRITICAL THINKING IN THE NURSING PROCESS

## DIAGNOSING

- Finding patterns and relationships among cues
- Identifying gaps in the data
- Making inferences
- Suspending judgment when lacking data
- Making interdisciplinary connections
- Stating the problem
- Examining assumptions
- Comparing patterns with norms
- Identifying factors contributing to the problem

# CRITICAL THINKING IN THE NURSING PROCESS

## PLANNING

- Set priorities and goals/ outcomes in collaboration with client
- Write goals/ desired outcomes
- Select nursing strategies/ interventions
- Consult with other health professionals
- Write nursing orders and nursing care plan
- Communicate care plan to relevant health care providers

# CRITICAL THINKING IN THE NURSING PROCESS

**IMPLEMENTING**

- Applying knowledge to perform interventions
- Testing hypotheses

**EVALUATING**

- Deciding whether hypotheses are correct
- Making criterion-based evaluations

# Case Study

- Mrs. Jones is a 32-year-old house wife, mother of two-year-old twin boys, who was admitted to the hospital yesterday with bilateral pneumonia.
- Vital signs: T-100.2 P-102 R-28 BP-110/60.
- IV D5 $\frac{1}{4}$ NS infusing at 100cc/hr.
- Appetite is poor; drinking only moderate amount of fluids.
- Auscultation of chest reveals bilateral crackles and wheezes.
- Frequent productive cough of thick yellow mucous.
- States she is very weak and tired because the cough has been keeping her awake at night and prevents her from sleeping in the daytime.
- States she gets “short of breath” with any activity.
- Her husband is home with the twins, and she is worried about him having to take care of the boys.

- Categorizing the data: all of the assessment data are related to physiologic needs except for the last one, which is related to self-esteem (role change).
- Nursing diagnoses are actual or potential problems, which the patient is experiencing or may experience that may be prevented, resolved, or reduced by nursing intervention. Nursing diagnoses describe human responses and alterations in the client's ability to function as an independent human being.

- In setting priorities, the first consideration is:  
Are any of the identified nursing diagnoses lifethreatening?
- The next step is to classify the diagnoses according to Maslow's hierarchy of needs.
- The patient's input is essential in prioritizing diagnoses and determining which problems should be addressed first.

## Physiologic needs:

1. Ineffective breathing pattern related to weakness and fatigue.
2. Ineffective airway clearance related to thick secretions.
3. Disturbed sleep pattern related to frequent cough.
4. Alteration in nutrition-less than body requirements related to loss of appetite.
5. Deficient fluid volume related to loss of appetite and insufficient oral intake.
6. Activity intolerance related to weakness and fatigue.

## Self-esteem need:

7. Anxiety related to change in role functioning associated with husband having to assume care of children.



Nursing Diagnosis 1: Ineffective breathing pattern related to weakness and fatigue.

Expected Outcome: The patient will experience adequate respiratory function within 48 hours as evidenced by:

- a. Respiratory rate 12-18 min.
- b. Decreased dyspnea
- c. Lungs clear to auscultation
- d. No cyanosis
- e. Clear mental status
- f. Blood gases within normal limits

# Nursing Actions:

1. Assess and document vital signs including respiratory rate every four hours and prn.
2. Assess and document lung sounds every four hours and prn.
3. Assess and document signs of hypoxia every four hours and prn (color, dyspnea).
4. Monitor blood gases as ordered, report abnormal results to physician.
5. Elevate head of bed 45 degrees as tolerated.
6. Instruct and assist patient to turn, cough, and deep breathe every 1-2 hours.
7. Encourage use of incentive spirometer every 1-2 hours.

# Nursing Actions:

8. Perform actions to promote removal of pulmonary secretions:
  - Fluid intake of 2500-3000cc per day
  - Humidify inspired air as ordered
  - Assist with or perform chest physiotherapy as ordered
  - Administer expectorants as ordered and monitor effects
9. Administer oxygen prn as ordered.
10. Provide psychosocial support and restful environment.
11. Notify physician if impaired breathing pattern persists or worsens.

# Implementation of care

- Prior to implementing the planned nursing interventions, the nurse should reassess the patient to determine if
- there have been any changes since the plan was formulated. The nurse must understand the rationale, technique,
- and possible effects of each nursing action.
- During delivery of care, patient safety is of utmost importance.

# Evaluation: At the end of two days:

- • Normal skin turgor
- • Mucous membranes are moist
- • BP 11/60-144/64, P 68-72 R 18-20. No postural hypotension
- • Blood work WNL
- • Specific gravity 1.019 - 1.021
- • Intake 2500cc/day, output 2000cc/day
- • Mrs. Jones is drinking fluids independently and states the importance of adequate fluid intake.

Nursing Diagnosis: Disturbed sleep pattern related to frequent cough.

Expected Outcome: The patient will sleep as much as possible within the parameters of the treatment plan during hospitalization as evidenced by:

- a. The patient will sleep 3-4 hours at a time
- b. The patient states she feels “rested”
- c. No signs of sleep deprivation (difficulty concentrating, thick speech, irritability, inappropriate behavior.)
- d. Decreased coughing episodes

Nursing Diagnosis: Alternation in nutrition  less than body requirements related to loss of appetite.

Expected Outcome: The patient will resume an adequate nutritional intake prior to discharge as evidenced by:

- a. No further weight loss while in the hospital
- b. Patient eats three meals and two snacks per day
- c. Patient states she feels hungry at mealtime
- d. Patient states importance of nutritionally sound diet

# FOOD FOR THOUGHT

- Mr. Mambo, a 42 year old man has come to the hospital with complains of urethral discharge. He gives a history of having indulged in risky sexual behaviour. He is a known diabetic for the last four years on oral hypoglycemics, which he says sometimes he forgets to swallow. He stays with his wife and two daughters, who sometimes lock him outside the compound for coming home late and drunk.
- From Mr. John's history, identify the nursing diagnosis in order of priority.



- Henry, a 24 year old has been admitted in the surgical ward with acute abdominal pain. A diagnosis of acute appendicitis has been made. Henry is scheduled for surgery this afternoon. He is a college student. His parents are in the hospital with him and they are very anxious about the situation.

**NURSING  
THEORIES AND  
MODELS**

# NURSING THEORIES AND MODELS

- DEFINITION OF TERMS
- PURPOSES OF NURSING THEORY
- IMPORTANCE OF NURSING THEORIES IN NURSING PROCESS
- COMPONENTS OF A THEORY
- TYPES OF THEORIES

- Theories are not discovered in nature but are human inventions.
- Theory is a creative and rigorous structuring of ideas that projects a tentative, purposeful, and systematic view of phenomena (Chinn & Kramer, 2004, p. 268).

# DEFINITION OF TERMS

**THEORY:** is a supposition or system of ideas that is proposed to explain a given phenomenon.

**NURSING THEORY:**

- It is the body of knowledge that is used to support nursing practice.
- It is a framework designed to organize knowledge and explain phenomena in nursing at a more concrete and specific level.

# DEFINITION OF TERMS

- It is a set of concepts, definitions, relationships, and assumptions or propositions derived from nursing models or from other disciplines and project a purposive, systematic view of phenomena by designing specific inter-relationships among concepts for the purposes of describing, explaining, predicting, and /or prescribing.

- Nursing theory is a conceptualization of some aspect of reality (invented or discovered) that pertains to nursing. The conceptualization is articulated for the purpose of describing, explaining, predicting, or prescribing nursing care (Meleis, 1997).

# DEFINITION OF TERMS

- **CONCEPT:** (Building blocks of theories). A mental idea of a phenomenon
- **CONCEPTUAL FRAMEWORK:** is a group of related ideas, statements or concepts. e.g Freud's idea of the mind (Id, Ego, Superego).



# DEFINITION OF TERMS

- Concepts are basically vehicles of thought that involve images.
- Concepts are words that describe objects , properties, or events and are basic components of theory.
- Types of Concepts:
  - Empirical concepts - Easily understood and measured.
  - Inferential concepts - Indirectly observable. Cannot be physically measured as easily. Ex: Smiling=happiness
  - Abstract concepts - We do not have literal evidence. Non-observable, not always easily understood, hard to accurately measure. Ex: God, pain.

# DEFINITION OF TERMS

- Models - Representations of the interaction between concepts showing patterns.
- CONCEPTUAL MODEL: used interchangeably with conceptual framework. They represent ways of thinking about a problem or ways of representing how complex things work the way that they do.
- NURSING MODELS: are conceptual models, constructed of theories and concepts.

# DEFINITION OF TERMS

- A conceptual model shows how various concepts are interrelated and applies theories to predict or evaluate consequences of alternative actions.
- A conceptual model "gives direction to the search for relevant questions about the phenomena of central interest to a discipline and suggests solutions to practical problems"

# DEFINITION OF TERMS

- Propositions - Links concepts. Defines relationships between concepts. "BP is high because of increased stress."
- Assumptions - Statements of facts or beliefs. Something one must believe to be true.

# DEFINITION OF TERMS

Four concepts are generally considered central to the discipline of nursing:

- The person who receives nursing care (the patient or client);
- The environment (society);
- Nursing (goals, roles, functions);
- Health.

# DEFINITION OF TERMS

- NURSING: the attributes, characteristics and actions of the nurse providing care on behalf of, or in conjunction with the client.
- HEALTH: the degree of wellness or wellbeing that the client experiences.

Health is a wholeness and successful adaptation

Disease: It is unregulated and undisciplined change and must be stopped or death will ensue

# DEFINITION OF TERMS

**ENVIRONMENT:** the internal and external surroundings that affect the client. Includes families, friends etc.

## I. Internal Environment

- **Homeostasis:** A state of energy sparing that also provide the necessary baselines for a multitude of synchronized physiological and psychological factors

# DEFINITION OF TERMS

## II. External Environment

- Pre-conceptual: Aspect of the world that individuals are able to intercept(interrupt).
- Operational: Elements that may physically affect individuals but not perceived by them: radiation, micro-organism and pollution
- Conceptual: Part of person's environment including cultural patterns characterized by spiritual existence, ideas, values, beliefs and tradition



# PURPOSES OF NURSING THEORY

- Education – many nursing programs organized curriculum framework basing around one or two models.
- Research – nursing research identifies the philosophical assumptions or theoretical framework from which it proceeds.
- Clinical practice – facilitates reflection, questioning and thinking about what nurses do.

# PURPOSES OF NURSING THEORY

Nursing theories:-

- are used to describe, develop, disseminate, and use present knowledge in nursing.
- provide a framework for nurses to systematize their nursing actions: what to ask, what to observe, what to focus on and what to think about.
- provide a framework to develop new and validate current knowledge. They help to describe, explain, predict and prescribe.

# IMPORTANCE OF NURSING THEORIES IN NURSING PROCESS

- It should provide the foundations of nursing practice, help to generate further knowledge and indicate in which direction nursing should develop in the future.
- Theory is important because it helps us to decide what we know and what we need to know.

# IMPORTANCE OF NURSING THEORIES IN NURSING PROCESS

- It helps to distinguish what should form the basis of practice by explicitly describing nursing.
- The benefits of having a defined body of theory in nursing include better patient care, enhanced professional status, improved communication between nurses, and guidance for research and education

# IMPORTANCE OF NURSING THEORIES IN NURSING PROCESS

- The main exponent of nursing – caring – cannot be measured, it is vital to have the theory to analyze and explain what nurses do.
- As medicine tries to make a move towards adopting a more multidisciplinary approach to health care, nursing continues to strive to establish a unique body of knowledge.
- This can be seen as an attempt by the nursing profession to maintain its professional boundaries.

# METAPARADIGMS IN NURSING

- The metaparadigm for nursing is a framework for the discipline that sets forth the phenomena of interest and the propositions, principles, and methods of the discipline.
- Global concepts that identify the phenomena of interest to a discipline. Broadest description of a discipline. Ex: Environment, Health, Person, Nursing = Nursing Metaparadigm.

# METAPARADIGMS IN NURSING

## Person

- Recipient of care, including physical, spiritual, psychological, and sociocultural components.
- Individual, family, or community

## Environment

- All internal and external conditions, circumstances, and influences affecting the person

## Health

- Degree of wellness or illness experienced by the person

## Nursing

- Actions, characteristics and attributes of person giving care.

# NON-NURSING THEORIES USED IN NURSING

## GENERAL SYSTEMS THEORY

Developed by Von Bertalanffy (1969,1976)

The relationships between the parts of the whole are examined to learn how they work together.

It assumes:-

- All systems must be goal directed.
- A system is more than the sum of its parts
- A system is ever changing.
- Human systems are open and dynamic.



# NON-NURSING THEORIES USED IN NURSING

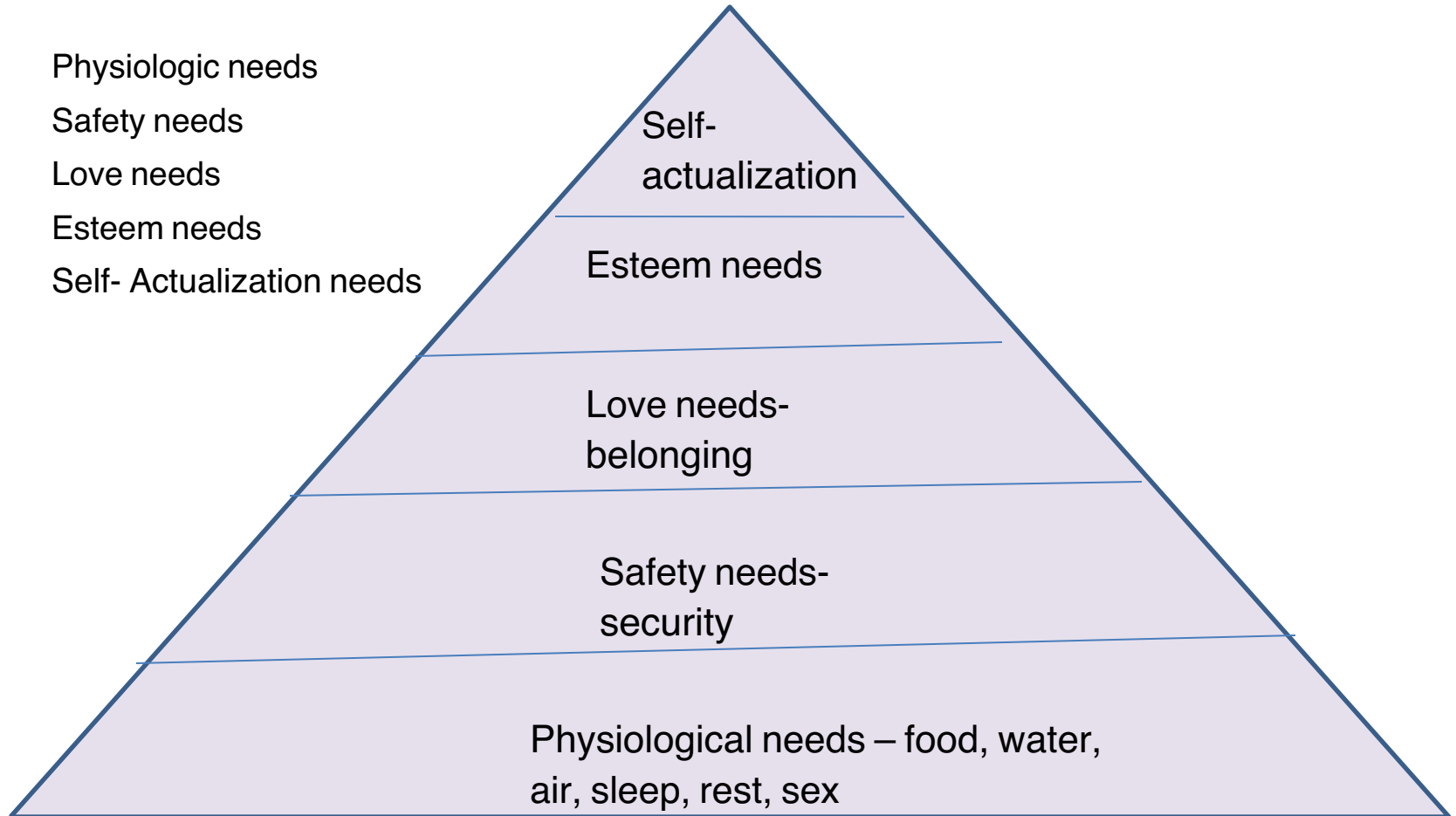
## HUMAN NEEDS THEORY: MASLOW'S HIERARCHY OF HUMAN NEEDS

Human needs are any physiologic or psychological factors necessary for a health existence.

Maslow's hierarchy provides a framework for recognizing and prioritizing basic human needs.

# MASLOWS HIERACHY OF HUMAN NEEDS

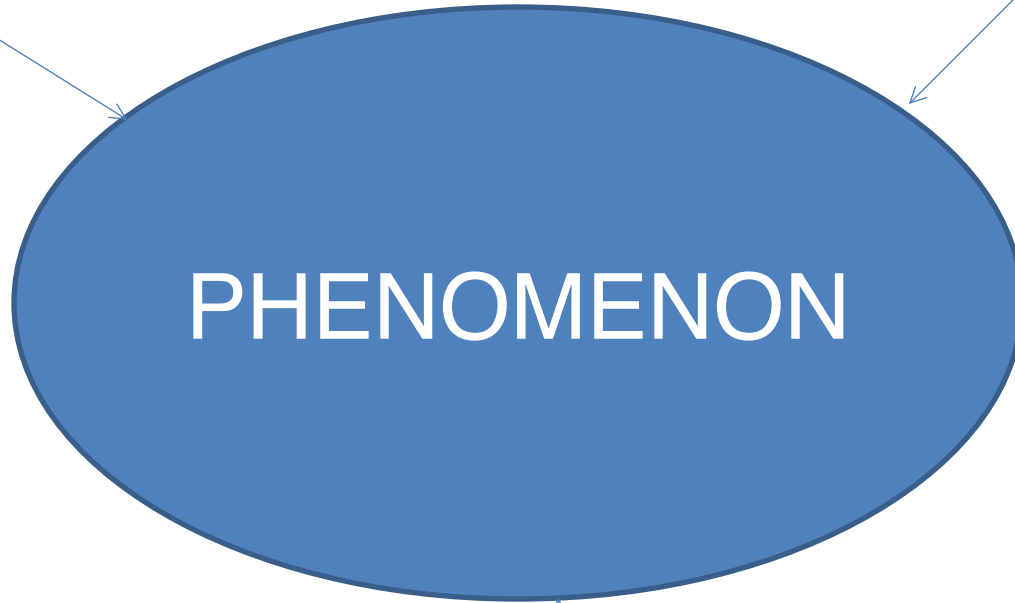
1. Physiologic needs
2. Safety needs
3. Love needs
4. Esteem needs
5. Self- Actualization needs



# COMPONENTS OF A THEORY

CONCEPTS

DEFINITIONS



ASSUMPTIONS

# TYPES OF THEORIES

## Grand Theories

- These are conceptual frameworks that define broad perspectives for nursing practice. They are simply known to speak a broad range of important relationship among concepts of a discipline.
- They are the broadest in scope representing universal and broad nursing phenomena.

# TYPES OF THEORIES

## EXAMPLES

- Dorothy Johnson – Behavioral System Model
- King, Imogene – Open Systems Theory.
- Levine, Myra Estrin – Conservation Model.
- Neuman, Betty – Systems Theory.
- Nightingale, Florence – Environmental Theory
- Orem, Dorothea E. – Self-Care Deficit Theory
- Parse, Rosemarie R. – Theory of Human Becoming
- Paterson, Josephine and Zderad, Loretta – Humanistic Nursing Theory.
- Rogers, Martha – The Science of Unitary Human Beings.
- Roy, Callista – Adaptation Theory.

# TYPES OF THEORIES

## Middle Range Theories in Nursing

Middle Range Theories are known to have a narrower and detailed focus compared to grand theories. They have lower level of abstraction than grand theories and they offer a more direct application to research and practice. These theories are specific to nursing practice and specify the area of practice, age range of the patient, nursing action or intervention, and proposed outcome

- Examples
- Dr. Katharine Kolcaba – The Comfort Theory
- Madelaine M Leininger – Transcultural Nursing.
- Ida Jean Orlando – The Deliberative Nursing Process.
- Hildegard E. Peplau – Interpersonal Relations.

# TYPES OF THEORIES

## Micro Range Nursing Theories

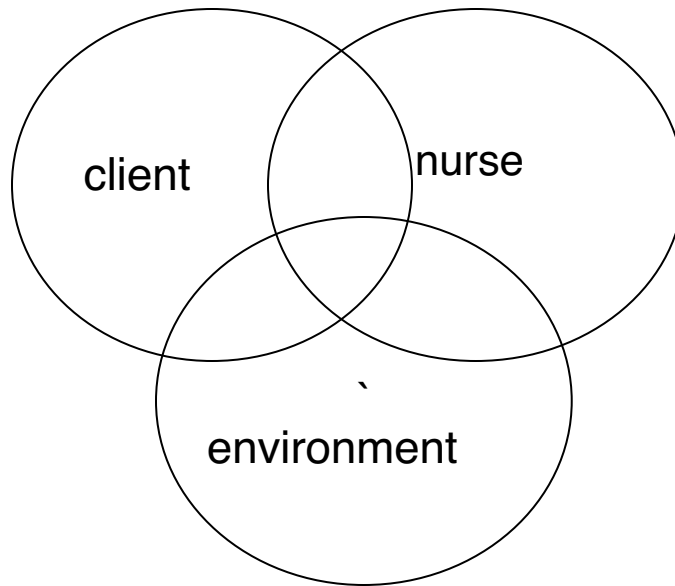
- Micro range theories are more tentative than grand and middle range theories and they serve as a means to test working hypotheses so they can be developed in a more organized theoretical system.

# According to Orientation or focus of the theory

1. Client centered: Nightingale, Henderson
2. Client-nurse dynamics: Watson
3. Client-nurse environment : Leininger



# Categories of nursing theories



# Client centered theory

1. Client centered theories are those focused on the needs and problems of clients which are met, resolved or alleviated by nursing interventions
  - This category includes theories developed by the following :  
Nightingale, Abdellah, Henderson, Orem, Pender, Roy, Levine, Hall.

# Nurse [?] client dynamics

2. Nurse-client-dynamics focus on interaction between the nurse and client. This category includes theories developed by the following: Peplau, Watson, King and Orlando

# Client Nurse Environment Dynamics

3. CLIENT NURSE ENVIRONMENT- focus on the interaction between nurse and client in an environment that includes broader dimensions of time and space. As well as culture, cultural diversity, and universality. Theories of Neuman and Leininger are discussed under this category.

# MAJOR THEORISTS

- Florence Nightingale [?] first nurse theorist.
- Virginia Henderson - Often called "the Nightingale of Modern Nursing,"
- Martha Rogers - saw nursing as both a science and an art.
- Dorothea E. Orem - defined nursing as an art, a helping service and a technology.
- Betty Neuman - defines the concern of nursing is preventing stress invasion.

# FLORENCE NIGHTINGALE

- The first nurse theorist.
- Defined nursing as the act of utilizing the environment of the patient to assist him in his recovery.
- Linked health with five environmental factors. A deficiency of these factors produced lack of health or illness.
- Stressed the importance of keeping the client warm, maintaining a noise-free environment and attending to their diet.

# FLORENCE NIGHTINGALE

## THE ENVIRONMENTAL FACTORS

1. Pure or fresh air
2. Pure water
3. Efficient drainage
4. Cleanliness
5. Light (especially direct sunlight)

# FLORENCE NIGHTINGALE

- **PERSON:** an individual with vital reparative processes to deal with disease.
- **ENVIRONMENT:** external conditions that affect life and the individual's development.
- **HEALTH:** focus is on the reparative process of getting well.
- **NURSING:** goal is to place the individual in the best condition for good health care.



# FLORENCE NIGHTINGALE

## Nursing

- Nursing is different from medicine and the goal of nursing is to place the patient in the best possible condition for nature to act.
- Nursing is the "activities that promote health (as outlined in canons) which occur in any caregiving situation. They can be done by anyone."

## Person

- People are multidimensional, composed of biological, psychological, social and spiritual components.

## Health

- Health is “not only to be well, but to be able to use well every power we have”.
- Disease is considered as dys-ease or the absence of comfort.

## Environment

- "Poor or difficult environments led to poor health and disease".
- "Environment could be altered to improve conditions so that the natural laws would allow healing to occur."

# Assumptions of Nightingale's Theory

- Natural laws
- Mankind can achieve perfection
- Nursing is a calling
- Nursing is an art and a science
- Nursing is achieved through environmental alteration
- Nursing requires a specific educational base
- Nursing is distinct and separate from medicine

# Application of Nightingale's theory in practice:

- "Patients are to be put in the best condition for nature to act on them, it is the responsibility of nurses to reduce noise, to relieve patients' anxieties, and to help them sleep."
- As per most of the nursing theories, environmental adaptation remains the basis of holistic nursing care.

# Criticisms

- She emphasized subservience to doctors.
- She focused more on physical factors than on psychological needs of patient.

# Conclusion

- Florence Nightingale provided a professional model for nursing organization.
- She was the first to use a theoretical foundation to nursing.
- Her thoughts have influenced nursing significantly.

# VIRGINIA HENDERSON

## HER DEFINITION OF NURSING

- "The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will, or knowledge and to do this in such a way as to help him gain independence as rapidly as possible.

# VIRGINIA HENDERSON

- Conceptualized the nurse's role as assisting sick or healthy individuals to gain independence in meeting 14 fundamental needs.
  1. Breathing normally
  2. Eating and drinking adequately
  3. Eliminating body wastes
  4. Moving and maintaining a desirable position



# VIRGINIA HENDERSON

## FUNDAMENTAL NEEDS

5. Sleeping and resting
6. Selecting suitable clothes
7. Maintaining body temperature within normal range by adjusting clothing.
8. Keeping the body clean and well groomed to protect the integument.
9. Avoiding dangers in the environment and avoiding injuring others.

# VIRGINIA HENDERSON

## FUNDAMENTAL NEEDS

10. Communicating with others in expressing emotions, needs, fears or opinions.
11. Worshipping according to one's faith.
12. Working in such a way that one feels a sense of accomplishment.
13. Playing or participating in various forms of recreation.
14. Learning, discovering or satisfying curiosity that leads to normal development and health and using available health facilities.

# VIRGINIA HENDERSON

- **PERSON:** an organism striving to reduce tension generated by needs.
- **ENVIRONMENT:** the interpersonal process is always included.
- **HEALTH:** ongoing human process that implies forward movement of personality and other human processes in the direction of creative, constructive, productive and community living.
- **NURSING:** an educative instrument, a maturing force that aims to promote forward movement of personality.

## 1. Individual

- Have basic needs that are component of health.
- Requiring assistance to achieve health and independence or a peaceful death.
- Mind and body are inseparable and interrelated.
- Considers the biological, psychological, sociological, and spiritual components.
- The theory presents the patient as a sum of parts with biopsychosocial needs.

## 2. Environment

- Settings in which an individual learns unique pattern for living.
- All external conditions and influences that affect life and development.
- Individuals in relation to families
- Minimally discusses the impact of the community on the individual and family.
- Basic nursing care involves providing conditions under which the patient can perform the 14 activities unaided

### 3. Health

- Definition based on individual's ability to function independently as outlined in the 14 components.
- Nurses need to stress promotion of health and prevention and cure of disease.
- Good health is a challenge -affected by age, cultural background, physical, and intellectual capacities, and emotional balance Is the individual's ability to meet these needs independently.

## 4. Nursing

- Temporarily assisting an individual who lacks the necessary strength, will and knowledge to satisfy 1 or more of 14 basic needs.
- Assists and supports the individual in life activities and the attainment of independence.
- Nurse serves to make patient “complete” “whole”, or "independent."
- The nurse is expected to carry out physician’s therapeutic plan  
Individualized care is the result of the nurse’s creativity in planning for care.
- “Nurse should have knowledge to practice individualized and human care and should be a scientific problem solver.”
- In the Nature of Nursing Nurse role is,” to get inside the patient’s skin and supplement his strength will or knowledge according to his needs.”

# Assumptions

The major assumptions of the theory are:

- "Nurses care for patients until patient can care for themselves once again.
- Nurses are willing to serve and that “nurses will devote themselves to the patient day and night”
- Nurses should be educated at the university level in both arts and sciences.



# Assumptions

- Independence is valued by the nurse and the patient, more than dependence.
- Health has a meaning shared by the society at large.
- Individuals desire health or a peaceful death and will act in such a way to achieve this.

# Assumptions

- Individuals will perform activities leading to health if they have the knowledge, capacity or will.
- The individual's goal and the nurse's goal are congruent.
- The 14 basic needs represent nursing's basic function.
- The major explicit assumption is Henderson's contention that the nurse is an independent practitioner.

# Conclusion

- Henderson provides the essence of what she believes is a definition of nursing.
- Her emphasis on basic human needs as the central focus of nursing practice has led to further theory development regarding the needs of the person and how nursing can assist in meeting those needs.
- Her definition of nursing and the 14 components of basic nursing care are uncomplicated and self-explanatory.

# DOROTHEA OREM

## GENERAL THEORY OF NURSING

Includes 3 related concepts

1. Self – care
2. Self – care deficit
3. Nursing systems

# DOROTHEA OREM

## SELF CARE THEORY

- Based on four concepts
  - i. Self care – those activities an individual performs independently throughout life to promote and maintain personal well being.
  - ii. Self care agency – the individual's ability to perform self care activities.
  - iii. Self care requisites/ needs – measures or actions taken to provide self care.
  - iv. Therapeutic self care demands – all self care activities required to meet existing self-care requisites/ actions to maintain health and well-being.

# DOROTHEA OREM

- Self [?] care deficit results when self-care agency is not adequate to meet the known self-care demand.
- Self-care deficit theory shows five methods of helping
  - Acting or doing for
  - Guiding
  - Teaching
  - Supporting
  - Providing an environment that promotes the individual's abilities to meet current and future demands.

# DOROTHEA OREM

Identifies three types of nursing systems

1. Wholly compensatory – required for individuals who are unable to control and monitor their environment and monitor their environment and process information.
2. Partly compensatory – designed for individuals who are unable to perform some, but not all self care activities.
3. Supportive-educative – designed for persons who need to learn to perform self-care measures and need assistance to do so.

# DOROTHEA OREM

- **PERSON:** Biopsychosocial being capable of self-care.
- **ENVIRONMENT:** internal and external stimuli.
- **HEALTH:** state of wholeness or integrity of human beings and the environment.
- **NURSING:** a creative effort of one human being to help another human being. Consists 3 systems- wholly compensatory, partially compensatory and supportive/ educative.



# DOROTHEA OREM

## Person:

Man is an integrated WHOLE - a unity functioning biologically, symbolically and socially.

- Man is self-reliant and responsible for self-care and well-being of his or her dependents and self-care is a requisite for all.
- Man is a logical organism with rational powers.
- Man's capacity to reflect on his/her own experience and the environment and his/her use of symbols/ideas/words that distinguished him/her from other species.
- A patient is an individual who is in need of assistance in meeting specific health-care demands because of lack of knowledge, skills, motivation, or orientation.

# DOROTHEA OREM

## Health:

State of wholeness or integrity of the individual human beings, his parts, and his modes of functioning.

- This concept is inherent in her nursing systems since the goal in each system is optimal wellness relative to that system.
- Responsibility of a total society and all its members.
- A healthy person is likely to have sufficient self-care abilities to meet his/her universal self-care needs.

# DOROTHEA OREM

## Environment:

Encompasses the elements external to man but she considered man and environment as an integrated system related to self-care.

# DOROTHEA OREM

- Environmental conditions conducive to development include opportunities to be helped: being with other persons or groups where care is offered; opportunities for solitude and companionship; provision of help for personal and group concerns without limiting individual decisions and personal pursuits: shared respect, belief, and trust; recognition and fostering of developmental potential.

# DOROTHEA OREM

## Nursing:

- To Orem, nursing arises through a mandate from society which defines scopes, limits, and credentials of nursing practice (agency).
- Through the nursing process, the nurse can select the nursing model appropriate for the patient.
- It is a community service, an art, and a technology.

# Assumptions

- Self-care is learned through human interaction and communication.
- Self-care includes deliberate and systematic actions performed to meet needs for care.
- People should be self-reliant and responsible for their own care needs as well as others in the family who are not able to care for themselves.

# Assumptions

- Nursing is a deliberate , purposeful helping service performed by nurses for the sake of others over a period of time.
- Persons are capable and willing to perform self care for self or for dependent members of the family.
- Education and culture influence individuals.

# Assumptions

- People are individuals with entities that are distinct from others and from their environments.
- Self care is part of life that is necessary for health human development & well-being.



# DOROTHEA OREM

## APPLICATION

Areas	Patient details
Name	Mrs. X
Age	56 years
Sex	Female
Education	No formal education
Occupation	House hold
Marital status	Married
Religion	Hindu
Diagnosis	Rheumatoid arthritis
Theory applied	Orem's theory of self care deficit.

# DOROTHEA OREM

Mrs. X....

- She came to the hospital with complaints of pain over all the joints, stiffness which is more in the morning and reduces by the activities.
- She has these complaints since 5 years and has taken treatment from local hospital.
- The symptoms were not reducing and came to main Hospital for further management.
- Patient was able to do the ADL by herself but the way she performed and the posture she used was making her prone to develop the complications of the disease.
- She also was malnourished and was not having awareness about the deficiencies and effects.

# DOROTHEA OREM

## BASIC CONDITIONING FACTORS

Age 56 year

Gender Female

Health state Disability due to health condition,  
therapeutic self care demand

Development state Ego integrity vs despair

Sociocultural orientation No formal education, Indian, Hindu

Health care system Institutional health care

Family system Married, husband working

Patterns of living At home with partner

Environment Rural area, items for ADL not in easy reach,  
no special precautions to prevent injuries

resources Husband, daughter, sister's son

# DOROTHEA OREM

## UNIVERSAL REQUISITES

## SELF-CARE

Air	Breaths without difficulty, no pallor cyanosis
Water	Fluid intake is sufficient. Edema present over ankles.
Food	Hb – 9.6gm%, BMI = 14. Food intake is not adequate or the diet is not nutritious.
Elimination	Voids and eliminates bowel without difficulty.
Activity/ rest	Frequent rest is required due to pain. Pain not completely relieved, Activity level has come down. Deformity of the joint secondary to the disease process and use of the joints.
Social interaction	Communicates well with neighbors and calls the daughter by phone Need for medical care is communicated to the daughter.
Prevention of hazards	Need instruction on care of joints and prevention of falls. Need instruction on improvement of nutritional status. Prefer to walk bare foot.
Promotion of normalcy	Has good relation with daughter

# DOROTHEA OREM

## DEVELOPMENTAL SELF-CARE REQUISITES

Maintenance of developmental environment

Able to feed self , Difficult to perform the dressing, toileting etc

Prevention/ management of the conditions threatening the normal development

Feels that the problems are due to her own behaviours and discusses the problems with husband and daughter.

# DOROTHEA OREM

## HEALTH DEVIATION SELF CARE REQUISITES

Adherence to medical regimen	Reports the problems to the physician when in the hospital. Cooperates with the medication, Not much aware about the use and side effects of medicines
Awareness of potential problem associated with the regimen	Not aware about the actual disease process. Not compliant with the diet and prevention of hazards. Not aware about the side effects of the medications
Modification of self image to incorporates changes in health status	Has adapted to limitation in mobility. The adoption of new ways for activities leads to deformities and progression of the disease.
Adjustment of lifestyle to accommodate changes in the health status and medical regimen.	Adjusted with the deformities. Pain tolerance not achieved

# DOROTHEA OREM

## NURSING CARE PLAN

Nursing diagnosis (diagnostic operations)	Outcome and plan (Prescriptive operations)	Implementation (control operations)	Evaluation (regulatory operations)
Based on self care deficits	<p>Outcome</p> <p>Nursing goal and objectives</p> <p>Design of nursing system</p> <p>Appropriate method of helping</p>	<p>Nurse- patient actions to</p> <ul style="list-style-type: none"> <li>- Promote patient as self care agent</li> <li>- Meet self care needs</li> <li>- Decrease the self care deficit.</li> </ul>	<ol style="list-style-type: none"> <li>1. Effectiveness of the nurse patient action to               <ul style="list-style-type: none"> <li>-Promote patient as self care agent</li> <li>- Meet self care needs</li> <li>- Decrease the self care deficit.</li> </ul> </li> <li>2. Effectiveness of the selected nursing system to meet the needs.</li> </ol>

# DOROTHEA OREM

THERAPEUTIC SELF CARE DEMAND: DEFICIENT AREA:  
FOOD

ADEQUACY OF SELF CARE AGENCY: INADEQUATE

NURSING DIAGNOSIS - Inability to maintain the ideal nutrition related to inadequate intake and knowledge deficit

OUTCOMES AND PLAN

a. Outcome:

- Improved nutrition
- Maintenance of a balanced diet with adequate iron supplementation.

b. Nursing Goals and objectives

- Goal: to achieve optimal levels of nutrition.



# DOROTHEA OREM

Objectives: Mrs. X will:

- state the importance of maintaining a balanced diet.
- List the food items rich in iron , that are available in the locality.

c. Design of the nursing system:

- supportive educative

d. Method of helping:

- guidance
- support
- Teaching
- Providing developmental environment

# DOROTHEA OREM

## IMPLEMENTATION

- Mutually planned and identified the objectives and the patient were made to understand about the required changes in the behaviour to have the requisites met.

## EVALUATION

- Mrs. X understood the importance of maintaining an optimum nutrition.
- She told that she will select the iron rich diet for her food.
- She listed the foods that are rich in iron and that are locally available.
- The self care deficit in terms of food will be decreased with the initiation of the nutritional intake.
- The supportive educative system was useful for Mrs. X

# BETTY NEUMAN

- Developed a model based on the individual's relationship to stress, the reaction to it and reconstitution factors that are dynamic in nature.
- Views a client as an open system consisting of a basic structure (physiologic, sociocultural, developmental and spiritual) surrounded by two concentric boundaries referred to as rings of resistance.

# BETTY NEUMAN

- Lines of resistance represent internal factors that help defend against a stressor e.g WBC
- The inner/ normal line of defense (solid line) represents the person's state of equilibrium/ adaptation developed and maintained over time.
- Flexible line (broken line) is dynamic and can be rapidly altered over a short period of time.

# BETTY NEUMAN

- Categorizes stressors as
  - Intra-personal – occur within the individual e.g infection.
  - Inter-personal – occur between individuals e.g unrealistic role expectations.
  - Extrapersonal – occur outside the person e.g financial concerns.

# BETTY NEUMAN

Nursing interventions focus on retaining or maintaining system stability. The preventive levels are:-

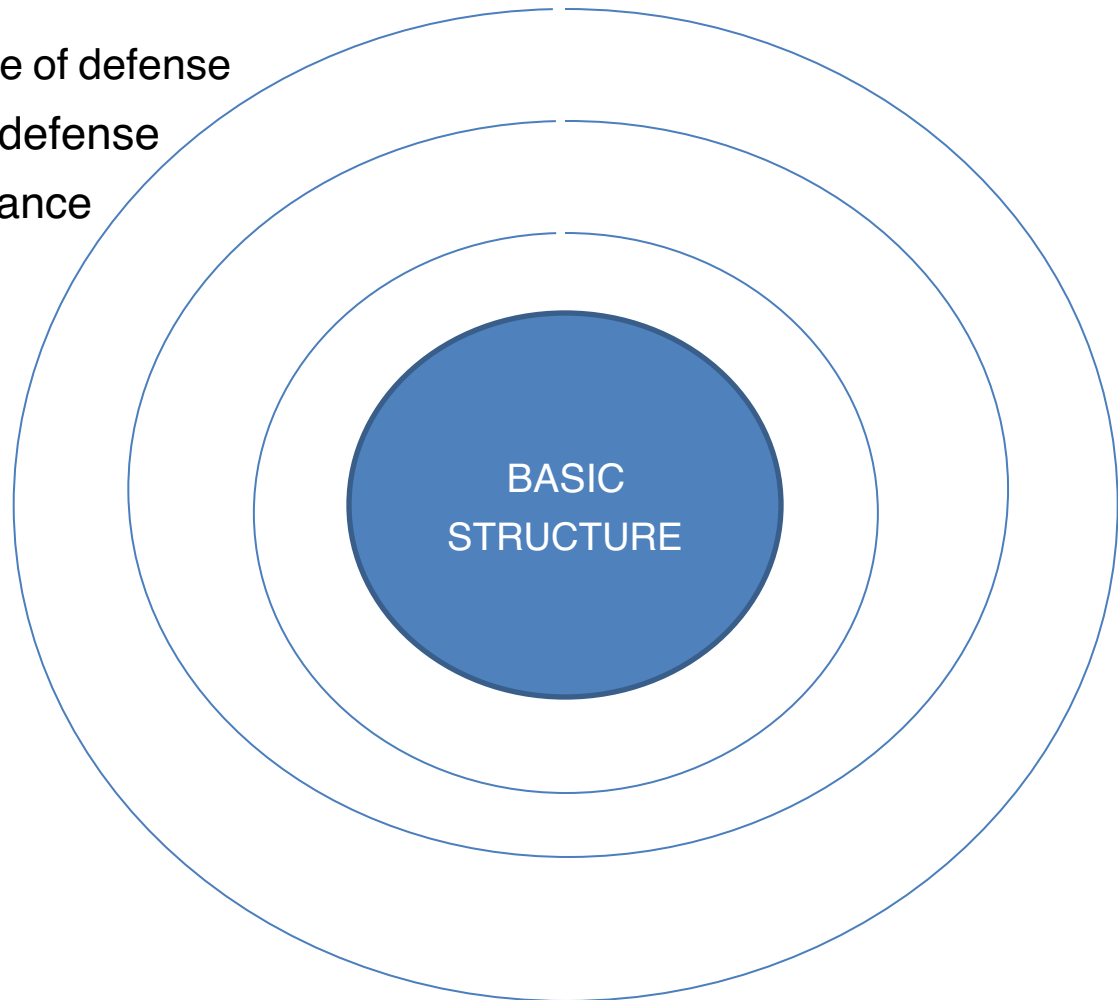
1. Primary prevention – focuses on protecting the normal line of defense and strengthening the flexible line.
2. Secondary prevention – focuses on strengthening internal lines of resistance, reducing reaction and increasing resistance factors.
3. Tertiary prevention – focuses on re-adaptation and stability and protects reconstitution or return of wellness following treatment.

# BETTY NEUMAN

OUTER LINE: flexible line of defense

Mid-line: normal line of defense

Inner line: lines of resistance



# Flexible Lines of Defense

- Is the outer boundary to the normal line of defense, the line of resistance, and the core structure.
- Keeps the system free from stressors and is dependent on the amount of sleep, nutritional status, as well as the quality and quantity of stress an individual experiences.
- If the flexible line of defense fails to provide adequate protection to the normal line of defense, the lines of resistance become activated.



# Normal Line of Defense

- Represents client's usual wellness level.
- Can change over time in response to coping or responding to the environment, which includes intelligence, attitudes, problem solving and coping abilities. Example is skin which is constantly smooth and fair will eventually form callous over times.

# Lines of Resistance

- The last boundary that protects the basic structure
- Protect the basic structure and become activated when environmental stressors invade the normal line of defense. An example: when a certain bacteria enters our system, there is an increase in leukocyte count to combat infection.
- If the lines of resistance are effective, the system can reconstitute and if the lines of resistance are not effective, the resulting energy loss can result in death.

# Stressors

- Are capable of producing either a positive or negative effect on the client system.
- Is any environmental force which can potentially affect the stability of the system:
- Intrapersonal - occur within person, example is infection, thoughts and feelings
- Interpersonal - occur between individuals, e.g. role expectations
- Extrapersonal - occur outside the individual, e.g. job or finance concerns

# Stressors

- A person's reaction to stressors depends on the strength of the lines of defense.
- When the lines of defense fails, the resulting reaction depends on the strength of the lines of resistance.
- As part of the reaction, a person's system can adapt to a stressor, an effect known as reconstitution

# KEY CONCEPTS

- Viewed the client as an open system consisting of a basic structure or central core of energy resources which represent concentric circles
- Each concentric circle or layer is made up of the five variable areas which are considered and occur simultaneously in each client concentric circles.

# KEY CONCEPTS

These are:

- Physiological - refers of bodily structure and function.
- Psychological - refers to mental processes, functioning and emotions.
- Sociocultural - refers to relationships; and social/cultural functions and activities.
- Spiritual - refers to the influence of spiritual beliefs.
- Developmental - refers to life's developmental processes.

# Basic Structure Energy Resources

This is otherwise known as the central core, which is made up of the basic survival factors common to all organisms. These include the following:

- Normal temperature range – body temperature regulation ability
- Genetic structure – Hair color and bodily features
- Response pattern – functioning of body systems homeostatically
- Organ strength or weakness
- Ego structure
- Knowns or commonalities – value system

# BETTY NEUMAN

- **PERSON:** A client system that is composed of physiologic, psychological, socio-cultural and environmental variables.
- **ENVIRONMENT:** internal and external forces surrounding humans at any time.
- **HEALTH:** focus is on the reparative process of getting well.
- **NURSING:** goal is to place the individual in the best condition for good health care.



# Assumptions

- Each client system is unique, a composite of factors and characteristics within a given range of responses contained within a basic structure.
- Many known, unknown, and universal stressors exist. Each differ in it's potential for disturbing a client's usual stability level or normal LOD (Line of Defence).

# Assumptions

- The particular inter-relationships of client variables at any point in time can affect the degree to which a client is protected by the flexible LOD against possible reaction to stressors.
- Each client/ client system has evolved a normal range of responses to the environment that is referred to as a normal LOD. The normal LOD can be used as a standard from which to measure health deviation.

# Assumptions

- When the flexible LOD is no longer capable of protecting the client/ client system against an environmental stressor, the stressor breaks through the normal LOD
- The client whether in a state of wellness or illness, is a dynamic composite of the inter-relationships of the variables. Wellness is on a continuum of available energy to support the system in an optimal state of system stability.
- Implicit within each client system are internal resistance factors known as LOR, which function to stabilize and realign the client to the usual wellness state.

# Assumptions

- Primary prevention relates to principles applied in client assessment and intervention, in identification and reduction of possible or actual risk factors.
- Secondary prevention relates to symptomatology following a reaction to stressor, appropriate ranking of intervention priorities and treatment to reduce their noxious effects.

# Assumptions

- Tertiary prevention relates to adjustive processes taking place as reconstitution begins and maintenance factors move the back in circular manner toward primary prevention.
- The client as a system is in dynamic, constant energy exchange with the environment.

# HILDEGARD PEPLAU

- Interpersonal relations model
- Use of a therapeutic relationship between the nurse and the client
- Nurses enter into a personal relationship with an individual when a need is present.
- Nurse – client relationship evolves in four phases

# Major Concepts

- The theory explains the purpose of nursing is to help others identify their felt difficulties.
- Nurses should apply principles of human relations to the problems that arise at all levels of experience.
- Peplau's theory explains the phases of interpersonal process, roles in nursing situations and methods for studying nursing as an interpersonal process.

# Major Concepts

- Nursing is therapeutic in that it is a healing art, assisting an individual who is sick or in need of health care.
- Nursing is an interpersonal process because it involves interaction between two or more individuals with a common goal.



# Major Concepts

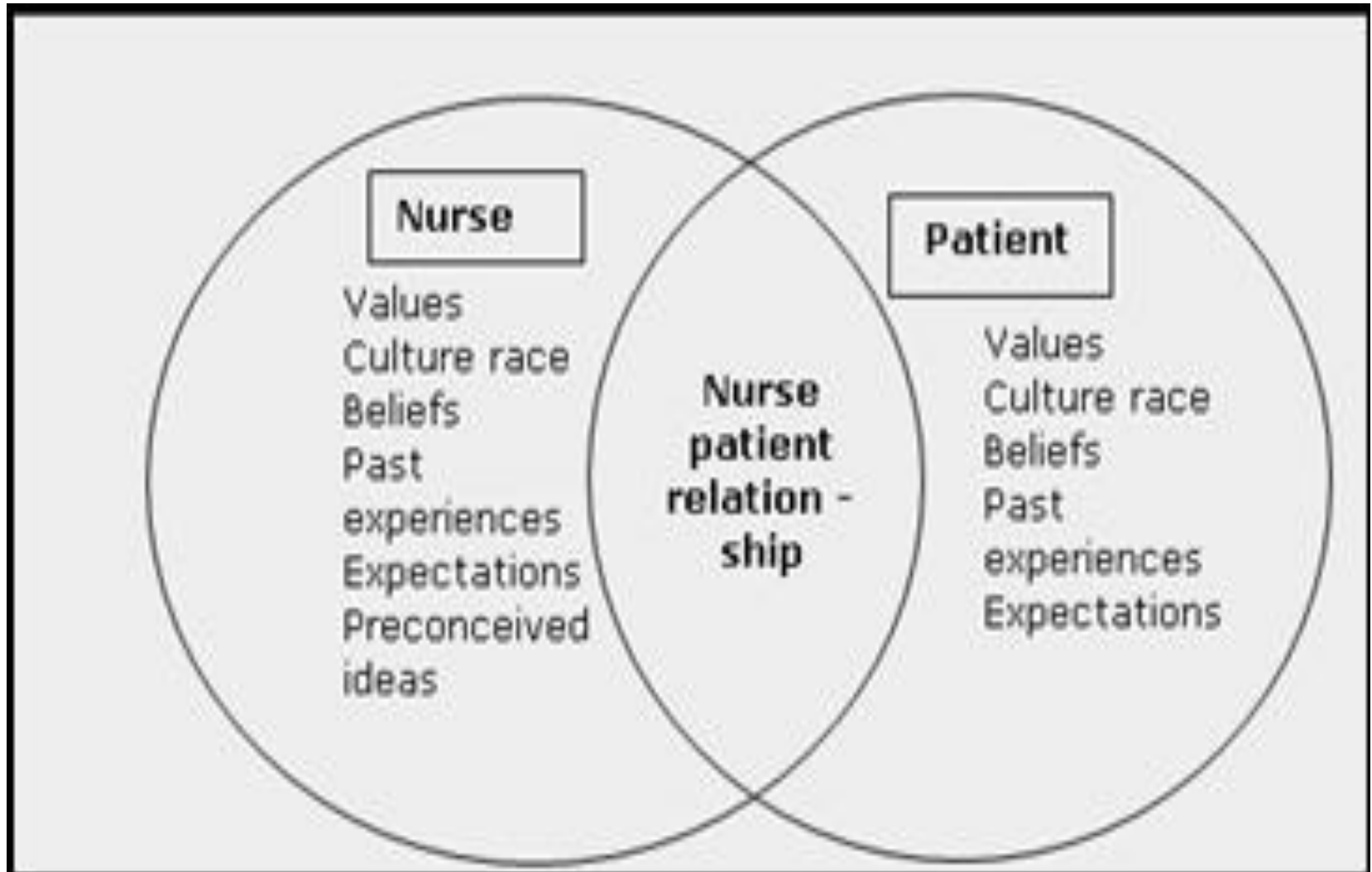
- The attainment of goal is achieved through the use of a series of steps following a series of pattern.
- The nurse and patient work together so both become mature and knowledgeable in the process.

# HILDEGARD PEPLAU

## PHASES

1. **ORIENTATION:** the client seeks help and the nurse assists the client to understand the problem and extent of the need for help.
2. **IDENTIFICATION:** the client assumes a posture of dependence, interdependence and independence in relation to the nurse.
3. **EXPLOITATION:** The client derives full value from what the nurse offers through the relationship. Power shifts from nurse to client.
4. **RESOLUTION:** old needs and goals are put aside and new ones adopted.

# Factors influencing orientation phase



# HILDEGARD PEPLAU

- To clients fulfill their needs, nurses assume many roles, teacher, leader, counsellor
- Peplau's model continues to be used by clinicians when working with individuals who have psychologic problems.

# HILDEGARD PEPLAU

- Person: A developing organism that tries to reduce anxiety caused by needs.
- Environment: Existing forces outside the organism and in the context of culture
- Health: A word symbol that implies forward movement of personality and other ongoing human processes in the direction of creative, constructive, productive, personal and community living.
- Nursing: A significant therapeutic interpersonal process. It functions cooperatively with other human process that make health possible for individuals in communities.

# Roles of nurse

- Stranger: receives the client in the same way one meets a stranger in other life situations provides an accepting climate that builds trust.
- Teacher: who imparts knowledge in reference to a need or interest
- Resource Person : one who provides a specific needed information that aids in the understanding of a problem or new situation
- Counselors : helps to understand and integrate the meaning of current life circumstances ,provides guidance and encouragement to make changes

# Roles of nurse

- Surrogate: helps to clarify domains of dependence interdependence and independence and acts on clients behalf as an advocate.
- Leader : helps client assume maximum responsibility for meeting treatment goals in a mutually satisfying way

# Assumptions

- Both nurse and patient want an interpersonal relationship
- The patient is able to participate in an interpersonal relationship
- The interpersonal relationship will enhance self maturity and/or self fulfillment
- The patient has a felt need



# MARTHA ROGERS

## Unitary Human Being (person)

- A unitary human being is an "irreducible, indivisible, pan dimensional (four-dimensional) energy field identified by pattern and manifesting characteristics that are specific to the whole and which cannot be predicted from knowledge of the parts" and "a unified whole having its own distinctive characteristics which cannot be perceived by looking at, describing, or summarizing the parts"

# MARTHA ROGERS

## Science of Unitary Human Beings

- Introduction
- Born :May 12, 1914, Dallas, Texas, USA
- Diploma : Knoxville General Hospital School of Nursing(1936)
- Graduation in Public Health Nursing : George Peabody College, TN, 1937
- MA :Teachers college, Columbia university, New York, 1945
- MPH :Johns Hopkins University, Baltimore, MD, 1952
- Doctorate in nursing :Johns Hopkins University, Baltimore, 1954
- Fellowship: American academy of nursing
- Position: Professor Emerita, Division of Nursing, New York University, Consultant, Speaker
- Died : March 13 , 1994
- Publications of Martha Rogers Theoretical basis of nursing (Rogers 1970)
  
- Nursing science and art :a prospective (Rogers 1988)

# MARTHA ROGERS

- Nursing :science of unitary, irreducible, human beings update (Rogers 1990)
- Vision of space based nursing (Rogers 1990)

## Overview of Rogerian model

- Rogers conceptual system provides a body of knowledge in nursing.
- Rogers model provides the way of viewing the unitary human being.
- Humans are viewed as integral with the universe.
- The unitary human being and the environment are one, not dichotomous
- Nursing focus on people and the manifestations that emerge from the mutual human /environmental field process

# MARTHA ROGERS

- Change of pattern and organization of the human field and the environmental field is propagated by waves
- The manifestations of the field patterning that emerge are observable events
- The identification of the pattern provide knowledge and understanding of human experience
- Basic characteristics which describes the life process of human: energy field, openness, pattern, and pan dimensionality
- Basic concepts include unitary human being, environment, and homeodynamic principles

# MARTHA ROGERS

## Concepts of Rogers model

### Energy field

- The energy field is the fundamental unit of both the living and nonliving
- This energy field "provide a way to perceive people and environment as irreducible wholes"
- The energy fields continuously varies in intensity, density, and extent.

# MARTHA ROGERS

## Openness

- The human field and the environmental field are constantly exchanging their energy
- There are no boundaries or barrier that inhibit energy flow between fields

## Pattern

- Pattern is defined as the distinguishing characteristic of an energy field perceived as a single waves
- "pattern is an abstraction and it gives identity to the field"

# MARTHA ROGERS

## Pan dimensionality

- Pan dimensionality is defined as "non linear domain without spatial or temporal attributes"
- The parameters that human use in language to describe events are arbitrary.
- The present is relative, there is no temporal ordering of lives.

# MARTHA ROGERS

## Homeodynamic principles

- The principles of homeodynamic postulates the way of perceiving unitary human beings
- The fundamental unit of the living system is an energy field
- Three principles of homeodynamics
  - Resonancy
  - Helicy
  - integrality



# MARTHA ROGERS

## Resonance

- Resonance is an ordered arrangement of rhythm characterizing both human field and environmental field that undergoes continuous dynamic metamorphosis in the human environmental process

# MARTHA ROGERS

## Helicy

- Helicy describes the unpredictable, but continuous, nonlinear evolution of energy fields as evidenced by non repeating rhythmicities
- The principle of Helicy postulates an ordering of the humans evolutionary emergence

Integrality The mutual, continuous relationship of the human energy field and the environmental field .

# MARTHA ROGERS

- Changes occur by the continuous re-patterning of the human and environmental fields by resonance waves
- The fields are one and integrated but unique to each other
- Nursing Paradigms

# MARTHA ROGERS

## Environment

- The environment is an "irreducible, pan dimensional energy field identified by pattern and integral with the human field"
- The field coexist and are integral.
- Manifestation emerge from this field and are perceived.

# Environment

## Health

- "an expression of the life process; they are the "characteristics and behavior emerging out of the mutual, simultaneous interaction of the human and environmental fields"
- Health and illness are the part of the same continuum.

# Environment

- The multiple events taking place along life's axis denote the extent to which man is achieving his maximum health potential and vary in their expressions from greatest health to those conditions which are incompatible with the maintaining life process

# MARTHA ROGERS

## Nursing

- Two dimensions Independent science of nursing
  - An organized body of knowledge which is specific to nursing is arrived at by scientific research and logical analysis
  - Art of nursing practice:
    - The creative use of science for the betterment of the human
    - The creative use of its knowledge is the art of its practice
- Nursing exists to serve people.

# MARTHA ROGERS

- It is the direct and overriding responsibility to the society
- The safe practice of nursing depends on the nature and amount of scientific nursing knowledge the individual brings to practice.....the imaginative, intellectual judgment with which such knowledge is made in service to the man kind.



# MARTHA ROGERS

## APPLICATION

- Changes occur by the continuous re-patterning of the human and environmental fields by resonance waves
- The fields are one and integrated but unique to each other
- Nursing Paradigms/ shift

# MARTHA ROGERS

- The Science of Unitary Human Beings provides a radical vision of nursing reality.
- It provides a framework for nursing practice, education and research that promises a move away from the previously predominant medical model approach to the delivery of nursing care.

# MARTHA ROGERS

- The framework provides an alternative to the traditional view of nursing which could be described as reductionistic, mechanistic and analytic.
- It has been said that it has "guided nursing out of a concrete, static, closed system world view" (Smith, 1989) and as a result has started to challenge many preconceived ideas about nursing.

# IMOGENE KING

## Introduction

- Imogene King - born in 1923.
- Bachelor in science of nursing from St. Louis University in 1948
- Master of science in nursing from St. Louis University in 1957
- Doctorate from Teacher's college, Columbia University.
- Theory of goal attainment was first introduced by Imogene King in the early 1960's.
- Theory describes a dynamic, interpersonal relationship in which a person grows and develops to attain certain life goals.
- Factors which affects the attainment of goal are: roles, stress, space & time

# IMOGENE KING

## Basic assumptions

- Nursing focus is the care of human being
- Nursing goal is the health care of individuals & groups
- Human beings: are open systems interacting constantly with their environment.
- Basic assumption of goal attainment theory is that nurse and client communicate information, set goal mutually and then act to attain those goals, is also the basic assumption of nursing process

# IMOGENE KING

- “Each human being perceives the world as a total person in making transactions with individuals and things in environment”
- “Transaction represents a life situation in which perceiver & thing perceived are encountered and in which person enters the situation as an active participant and each is changed in the process of these experiences”

# IMOGENE KING

## Major Concepts

- Interacting systems:
  - personal system
  - Interpersonal system
  - Social system

Concepts are given for each system

# IMOGENE KING

## Concepts for Personal System

- Perception
- Self
- Growth & development
- Body image
- Space
- Time



# IMOGENE KING

## Concepts for Interpersonal System

- Interaction
- Communication
- Transaction
- Role
- Stress

# IMOGENE KING

## Concepts for Social System

- Organization
- Authority
- Power
- Status
- Decision making

# IMOGENE KING

## Propositions of King's Theory

- If perceptual interaction accuracy is present in nurse-client interactions, transaction will occur
- If nurse and client make transaction, goal will be attained
- If goal are attained, satisfaction will occur
- If transactions are made in nurse-client interactions, growth & development will be enhanced

# IMOGENE KING

- If role expectations and role performance as perceived by nurse & client are congruent, transaction will occur
- If role conflict is experienced by nurse or client or both, stress in nurse-client interaction will occur
- If nurse with special knowledge skill communicate appropriate information to client, mutual goal setting and goal attainment will occur.

# IMOGENE KING

Human being /person

- Human being or person refers to social being who are rational and sentient.
- Person has ability to :
  - perceive
  - think
  - feel
  - choose
  - set goals
  - select means to achieve goals and
  - to make decision

# IMOGENE KING

- Human being has three fundamental needs:
  - The need for the health information that is unable at the time when it is needed and can be used
  - The need for care that seek to prevent illness, and
  - The need for care when human beings are unable to help themselves.

# IMOGENE KING

## 2. Health

- Health involves dynamic life experiences of a human being, which implies continuous adjustment to stressors in the internal and external environment through optimum use of one's resources to achieve maximum potential for daily living.

# IMOGENE KING

## 3. Environment

- Environment is the background for human interactions.
- It involves:
  - Internal environment: transforms energy to enable person to adjust to continuous external environmental changes.
  - External environment: involves formal and informal organizations. Nurse is a part of the patient's environment.



# IMOGENE KING

## 4. Nursing

- Definition: “A process of action, reaction and interaction by which nurse and client share information about their perception in nursing situation.” and “ a process of human interactions between nurse and client whereby each perceives the other and the situation, and through communication, they set goals, explore means, and agree on means to achieve goals.”
- Action: is defined as a sequence of behaviors involving mental and physical action.
- Reaction: which is considered as included in the sequence of behaviors described in action.

# IMOGENE KING

- Goal of nurse: “To help individuals to maintain their health so they can function in their roles.”
- Domain of nurse: “includes promoting, maintaining, and restoring health, and caring for the sick, injured and dying.
- Function of professional nurse: “To interpret information in nursing process to plan, implement and evaluate nursing care..

# IMOGENE KING

## Theory of Goal Attainment and Nursing Process Assessment

- King indicates that assessment occur during interaction.
- The nurse brings special knowledge and skills whereas client brings knowledge of self and perception of problems of concern, to this interaction.
- During assessment nurse collects data regarding client
- Perception is the base for collection and interpretation of data.
- Communication is required to verify accuracy of perception, for interaction and transaction.

# IMOGENE KING

## Nursing diagnosis

- The data collected by assessment are used to make nursing diagnosis in nursing process.
- According to king in process of attaining goal the nurse identifies the problems, concerns and disturbances about which person seek help.

# IMOGENE KING

## Planning

- After diagnosis, planning for interventions to solve those problems is done.
- In goal attainment planning is represented by setting goals and making decisions about and being agreed on the means to achieve goals.
- This part of transaction and client's participation is encouraged in making decision on the means to achieve the goals.

# IMOGENE KING

## Implementations

- In nursing process implementation involves the actual activities to achieve the goals.
- In goal attainment it is the continuation of transaction.

# IMOGENE KING

## Evaluation

- It involves to finding out whether goals are achieved or not.
- In King's description, evaluation speaks about attainment of goal and effectiveness of nursing care.

# IMOGENE KING

## Nursing Process and Theory of Goal Attainment

Nursing process method	Nursing process theory
A system of oriented actions	A system of oriented concepts
Assessment	Perception, communication and interaction of nurse and client
Planning	Decision making about the goals Be agree on the means to attain the goals
Implementation	Transaction made
Evaluation	Goal attained



# IDA JEAN ORLANDO

- Ida Jean Orlando - born in 1926.
- wrote about the nursing process.
- Nursing diploma - New York Medical College
- BS in public health nursing - St. John's University, NY,
- MA in mental health nursing - Columbia University, New York.
- Associate Professor at Yale School of Nursing and Director of the Graduate Program in Mental Health Psychiatric Nursing.
- Project investigator of a National Institute of Mental Health grant entitled: Integration of Mental Health Concepts in a Basic Nursing Curriculum.
- published in her 1961 book, *The Dynamic Nurse-Patient Relationship* and revised 1972 book: *The Discipline and Teaching of Nursing Processes*
- A board member of Harvard Community Health Plan.

# IDA JEAN ORLANDO

- Major Dimensions
- The role of the nurse is to find out and meet the patient's immediate need for help.
- The patient's presenting behavior may be a plea for help, however, the help needed may not be what it appears to be.
- Therefore, nurses need to use their perception, thoughts about the perception, or the feeling engendered from their thoughts to explore with patients the meaning of their behavior.
- This process helps nurse find out the nature of the distress and what help the patient needs.

# IDA JEAN ORLANDO

## CONCEPTS

- Function of professional nursing - organizing principle
- Presenting behavior - problematic situation
- Immediate reaction - internal response
- Nursing process discipline – investigation
- Improvement - resolution

# IDA JEAN ORLANDO

- Function of professional nursing - organizing principle
- Finding out and meeting the patients immediate needs for help
- "Nursing....is responsive to individuals who suffer or anticipate a sense of helplessness, it is focused on the process of care in an immediate experience, it is concerned with providing direct assistance to individuals in whatever setting they are found for the purpose of avoiding, relieving, diminishing or curing the individuals sense of helplessness." - Orlando

# IDA JEAN ORLANDO

- Presenting behavior - problematic situation
- To find out the immediate need for help the nurse must first recognize the situation as problematic
- The presenting behavior of the patient, regardless of the form in which it appears, may represent a plea for help
- The presenting behavior of the patient, the stimulus, causes an automatic internal response in the nurse, and the nurses behavior causes a response in the patient

# IDA JEAN ORLANDO

- Immediate reaction - internal response
- Person perceives with any one of his five sense organs an object or objects
- The perceptions stimulate automatic thought
- Each thought stimulates an automatic feeling
- Then the person acts
- The first three items taken together are defined as the person's immediate reaction

# IDA JEAN ORLANDO

- Nursing process discipline – investigation
- Any observation shared and explored with the patient is immediately useful in ascertaining and meeting his need or finding out that he is not in need at that time
- The nurse does not assume that any aspect of her reaction to the patient is correct, helpful or appropriate until she checks the validity of it in exploration with the patient
- The nurse initiates a process of exploration to ascertain how the patient is affected by what she says or does .
- When the nurse does not explore with the patient her reaction it seems reasonably certain that clear communication between them stops

# IDA JEAN ORLANDO

- Improvement - resolution
- It is not the nurses activity that is evaluated but rather its result : whether the activity serves to help the patient communicate her or his need for help and how it is met.
- In each contact the nurse repeats a process of learning how to help the individual patient.



# IDA JEAN ORLANDO

## ASSUMPTIONS

- When patients cannot cope with their needs without help, they become distressed with feelings of helplessness
- Patients are unique and individual in their responses
- Nursing offers mothering and nursing analogous to an adult mothering and nurturing of a child
- Nursing deals with people, environment and health
- Patient need help in communicating needs, they are uncomfortable and ambivalent about dependency needs

# IDA JEAN ORLANDO

- Human beings are able to be secretive or explicit about their needs, perceptions, thoughts and feelings
- The nurse – patient situation is dynamic, actions and reactions are influenced by both nurse and patient
- Human beings attach meanings to situations and actions that are not apparent to others
- Nurses are concerned with needs that patients cannot meet on their own

- When patients cannot cope with their needs without help, they become distressed with feelings of helplessness.

Nursing, in its professional character, does add to the distress of the patient.

Patients are unique and individual in their responses.

Nursing offers mothering and nursing analogous to an adult mothering and nurturing of a child.

Nursing deals with people, environment and health.

Patient need help in communicating needs, they are uncomfortable and ambivalent about dependency needs.

Human beings are able to be secretive or explicit about their needs, perceptions, thoughts and feelings.

The nurse – patient situation is dynamic, actions and reactions are influenced by both nurse and patient.

Human beings attach meanings to situations and actions that are not apparent to others.

Patient's entry into nursing care is through medicine.

The patient cannot state the nature and meaning of his distress for his need without the nurses help or without her first having established a helpful relationship with him.

Any observation shared and observed with the patient is immediately useful in ascertaining and meeting his need or finding out that he is not in need at that time.

Nurses are concerned with needs that patients cannot meet on their own.

# IDA JEAN ORLANDO

- CHARACTERISTICS OF THE THEORY
- Orlando's theory interrelate concepts
- Orlando's theory has a logical nature
- Orlando's theory is simple and applicable in the daily practice.
- Orlando's theory contribute to the professional knowledge.
- Orlando's theory is applicable in clinical practice

# IDA JEAN ORLANDO

- STRENGTHS
- Use of her theory assures that patient will be treated as individuals and that they will have active and constant input into their own care
- Prevents inaccurate diagnosis or ineffective plans because the nurse has to constantly explore her reactions with the patient
- Assertion of nursing's independence as a profession and her belief that this independence must be based on a sound theoretical frame work
- Guides the nurse to evaluate her care in terms of objectively observable patient outcome

- Strengths:

Use of her theory assures that the patient will be treated as individuals and they will have an active and constant input into their own care.

Assertion of nursing's independence as a profession and her belief that this independence must be based on a sound theoretical frame work.

Guides the nurse to evaluate her care in terms of objectively observable patient outcomes.

Weaknesses:

Lack the operational definitions of society or environment which limits the development of research hypothesis.

The theory focuses on short term care, particularly aware and conscious individuals and on the virtual absence of reference group or family members.

# IDA JEAN ORLANDO

## CONCLUSION TO THEORY

- Orlando's Deliberative Nursing Process Theory focuses on the interaction between the nurse and patient, perception validation, and the use of the nursing process to produce positive outcomes or patient improvement. Orlando's key focus was to define the function of nursing. (Faust C., 2002)
- Orlando's theory remains one of the most effective practice theories available.
- The use of her theory keeps the nurse's focus on the patient.
- The strength of the theory is that it is clear, concise, and easy to use.
- While providing the overall framework for nursing, the use of her theory does not exclude nurses from using other theories while caring for the patient.

# Summary

- Florence Nightingale's Legacy of caring - Focuses on nursing and the patient environment relationship.
- Virginia Henderson's Definition of Nursing
- Patients require help towards achieving independence.
- Derived a definition of nursing
- Identified 14 basic human needs on which nursing care is based.



# Summary

- Faye G.Abedellah's Typology of twenty one Nursing problems - Patient's problems determine nursing care
- Lydia E. Hall :Care, Cure, Core model - Nursing care is person directed towards self love.
- Jean Watson's Philosophy and Science of caring- Caring is a universal, social phenomenon that is only effective when practiced interpersonally considering humanistic aspects and caring. Caring is central to the essence of nursing.

# Summary

Dorothea E. Orem's Self care deficit theory in nursing

- Self-care maintains wholeness.
- Three Theories:
  - Theory of Self-Care
  - Theory of Self-Care Deficit
  - Theory of Nursing Systems
- Nursing Care:
  - Wholly compensatory (doing for the patient)
  - Partly compensatory (helping the patient do for himself or herself)
  - Supportive- educative (Helping patient to learn self care and emphasizing on the importance of nurses' role)

# Summary

Martha E. Rogers: Science of unitary human beings

- Person and environment are energy fields that evolve negentropically
- Nursing is a basic scientific discipline
- Nursing is using knowledge for human betterment.
- The unique focus of nursing is on the unitary or irreducible human being and the environment (both are energy fields) rather than health and illness

# Summary

Dorothy E. Johnson's Behavioural system model

- Individuals maintain stability and balance through adjustments and adaptation to the forces that impinge them.
- Individual as a behavioural system is composed of seven subsystems: the subsystems of attachment, or the affiliative, dependency, achievement, aggressive, ingestive-eliminative and sexual.
- Disturbances in these causes nursing problems.

# Summary

Sister Callista: Roy's Adaptation model

- Stimuli disrupt an adaptive system
- The individual is a biopsychosocial adaptive system within an environment.
- The individual and the environment provide three classes of stimuli-the focal, residual and contextual.
- Through two adaptive mechanisms, regulator and cognator, an individual demonstrates adaptive responses or ineffective responses requiring nursing interventions

# Summary

Betty Neuman's : Health care systems model

- Neuman's model includes intrapersonal, interpersonal and extrapersonal stressors.
- Nursing is concerned with the whole person.
- Nursing actions (Primary, Secondary, and Tertiary levels of prevention) focuses on the variables affecting the client's response to stressors.

# Summary

## Imogene King's Goal attainment theory

- Transactions provide a frame of reference toward goal setting.
- Major concepts (interaction, perception, communication, transaction, role, stress, growth and development)
- Perceptions, Judgments and actions of the patient and the nurse lead to reaction, interaction, and transaction (process of nursing).

# Summary

Nancy Roper, WW.Logan and A.J.Tierney    A model for nursing based on a model of living

- Individuality in living.
- A conceptual model of nursing from which theory of goal attainment is derived.
- Living is an amalgam of activities of living (ALs).
- Most individuals experience significant life events which can affect ALs causing actual and potential problems.
- This affects dependence – independence continuum which is bi-directional.
- Nursing helps to maintain the individuality of person by preventing potential problems, solving actual problems and helping to cope.



# Summary

## Hildegard E. Peplau: Psychodynamic Nursing Theory

- Interpersonal process is maturing force for personality.
- Stressed the importance of nurses' ability to understand own behaviour to help others identify perceived difficulties.
- The four phases of nurse-patient relationships are:
  - 1. Orientation
  - 2. Identification
  - 3. Exploitations
  - 4. Resolution
- The six nursing roles are:
  - 1. Stranger
  - 2. Resource person
  - 3. Teacher
  - 4. Leader
  - 5. Surrogate
  - 6. Counselor
- Interpersonal process alleviates distress.

# Summary

## Ida Jean Orlando's Nursing Process Theory

- Nurses must stay connected to patients and assure that patients get what they need, focused on patient's verbal and non verbal expressions of need and nurse's reactions to patient's behaviour to alleviate distress.
- Elements of nursing situation:
  - Patient
  - Nurse reactions
  - Nursing actions

# Summary

Nola J. Pender's : The Health promotion; model

- Promoting optimum health supersedes disease prevention.
- Identifies cognitive, perceptual factors in clients which are modified by demographical and biological characteristics, interpersonal influences, situational and behavioural factors that help predict in health promoting behaviour

# CONCLUSION

- The conceptual and theoretical nursing models help to provide knowledge to improve practice, guide research and curriculum and identify the goals of nursing practice.
- Nursing knowledge is the inclusive total of the philosophies, theories, research, and practice wisdom of the discipline.

# CLASS ASSIGNMENT

Using Betty Neuman's system's model theory, identify the stressors (Intrapersonal, Interpersonal and Extrapersonal Factors) from the case below.

## PATIENT PROFILE

- 1. Name- Mr. AM
- 2. Age- 66 years
- 3. Sex-Male
- 4. Marital status-married
- 5. Referral source- Referred from ----- Medical College, -----

# CLASS ASSIGNMENT (CONT'D)

(Information collected from the patient and his wife)

- Patient was suffering from severe abdominal pain, nausea, vomiting, yellowish discolorations of eye, palm, and urine, reduced appetite and gross weight loss(8kg with in 4 months)
- Patient is been diagnosed to have Periapillary carcinoma one week back.
- Patient underwent operative procedure i.e. WHIPPLE'S PROCEDURE- Pancreato duodenectomy on 27/3/08.

# CLASS ASSIGNMENT (CONT'D)

- Psychologically disturbed about his disease condition- anticipating it as a life threatening condition. Patient is in depressive mood and does not interacting.
- Patient is disturbed by the thoughts that he became a burden to his children with so many serious illnesses which made them to stay with him at hospital.
- Patient has pitting type of edema over the ankle region, and it is more during the evening and will not be relieved by elevation of the affected extremities.
- He had developed BPH few months back (2008 January) and underwent surgery on January 17. Still he has mild difficulty in initiating the stream of urine.
- Patient is a known case of Diabetes since last 28 years and for the last 4 years he is on Inj. H.Insulin (4U-0-0).

# CLASS ASSIGNMENT (CONT'D)

## Life style patterns

- patient is a retired school teacher
- cares for wife and other family members
- living with his son and his family
- active in church
- participates in community group meeting i.e. local politics
- has a supportive spouse and family
- taking mixed diet
- no habits of smoking or drinking
- spends leisure time by reading news paper, watching TV, spending time with family members and relatives



# CLASS ASSIGNMENT

## INTRAPERSONAL FACTORS

### Physical examination and investigations

- Height- 162 cm, Weight – 42 kg
- TPR- 37.0 C, 74 b/m, 14 breaths per min. BP- 130/78 mmHg
- Eye- vision is normal, on examination the appearance of eye is normal. Conjunctiva is pale in appearance. Pupils reacting to the light.
- Ear- appearance of ears normal. No wax deposition. Pinna is normal in appearance and hearing ability is also normal.
- Respiratory system- respiratory rate is normal, no abnormal sounds on auscultation. Respiratory rate is 16 breaths per min.
- Cardiovascular system- heart rate is 76 per min. on auscultation no abnormalities detected. Edema is present over the left ankle which is non pitting in nature.

# CLASS ASSIGNMENT

- GIT- patient has the complaints of reduced appetite, nausea; vomiting etc. food intake is very less. Mouth- on examination is normal. Bowel sounds are reduced. Abdomen could not be palpated because of the presence of the surgical incision. Bowel habits are not regular after the hospitalization
- Extremities- range of motion of the extremities are normal. Edema is present over the left ankle which is non pitting in nature. Because of weakness and fatigue he is not able to walk with out support
- Integumentary system- extremities are mild yellowish in color. No cyanosis. Capillary refill is normal.
- Genitor urinary system- patient has difficulty in initiating the urine stream. No complaints of painful micturation or difficulty in passing urine.

# CLASS ASSIGNMENT

- Self care activities- perform some of his activities, for getting up from the bed he needs some other person's support. To walk also he needs a support. He do his personal care activities with the support from the others
- Sleep –. He told that sleep is reduced because of the pain and other difficulties. Sleep is reduced after the hospitalization because of the noisy environment.
- Diet and nutrition- patient is taking mixed diet, but the food intake is less when compared to previous food intake because of the nausea and vomiting. Usually he takes food three times a day.
- Habits- patient does not have the habit of drinking or smoking.
- Other complaints- patient has the complaints of pain fatigue, loss of appetite, dizziness, difficulty in urination, etc...

# CLASS ASSIGNMENT

## Psycho- socio cultural

- Anxious about his condition
- Depressive mood
- Patient is a retired teacher and he is Christian by religion.
- Studied up to BA
- Married and has 4 children(2 sons and 2 daughters)
- Friendly home environment and good relationship with wife and children
- Is active in the social activities at his native place and also actively involved in the religious activities too.
- Good and congenial relationship with the neighbours
- Has some good and close friends at his place and actively interact with them. They also very supportive to him
- Good social support system is present from the family as well as from the neighborhood

# CLASS ASSIGNMENT

## Developmental factors

- Patient confidently says that he had been worked for 32 years as a teacher and he was a very good teacher for students and was a good coworker for the friends.
- He told that he could manage the official and house hold activities very well
- He was very active after the retirement and once he go back also he will resume the activities

# CLASS ASSIGNMENT

## Spiritual belief system

- Patient is Christian by religion
- He believes in god and used to go to church and also an active member in the religious activities.
- He has a personal Bible and he used to read it min of 2 times a day and also whenever he is worried or tensed he used to pray or read Bible.
- He has a good social support system present which helps him to keep his mind active.

# CLASS ASSIGNMENT

## INTERPERSONAL FACTORS

- has supportive family and friends
- good social interaction with others
- good social support system is present
- active in the agricultural works at home after the retirement
- active in the religious activities.
- Good interpersonal relationship with wife and the children
- Good social adjustment present

# CLASS ASSIGNMENT

## EXTRAPERSONAL FACTORS

- All the health care facilities are present at his place
- All communication facilities, travel and transport facilities etc are present at his own place.
- His house at a village which is not much far from the city and the facilities are available at the place.
- Financially they are stable and are able to meet the treatment expenses.



# TAKE AWAY

Describe the role of the following nursing theories in nursing today.

1. Imogene King's theory of goal attainment
2. Martha Rogers's theory of unitary human beings.

# FIRST AID

# Definition

- First Aid is exactly as the term implies, the first aid given for an injury. It is not intended as a long-term solution to a problem, nor does it replace treatment provided by trained medical personnel.
- It is an immediate and temporary care given to a victim of an accident or sudden illness before the services of a physician is obtained.

# Legal Considerations

- Implied Consent involves an unresponsive victim in a life-threatening condition.
- It is assumed or “implied” that an unresponsive victim would consent to lifesaving help.
- Only perform First Aid assistance for which you have been trained.

# PURPOSE OF FIRST AID

1. To save life
2. To prevent further injury
3. To preserve vitality and resistance to infection

## PHASES OF FIRST AID

- 1. Self-aid
- 2. Assistance from a companion
- 3. Emergency treatment
- 4. Initial surgery

# PRINCIPLES OF FIRST AID

- a) To prevent further injury to the casualty and to avoid injury to yourself: (e.g., from flames, collapsing building or any other hazards).
- b) To assess and treat the casualty in the correct order of priority.
- c) To place casualties in a comfortable position.
- d) To immobilize injured limbs.
- e) To relieve pain and anxiety if possible.
- f) To arrange evacuation if necessary in the correct priority.

# FIRST AID RULES

1. Do not get excited. First, check for danger and then check for responsiveness.
2. Do not move injured victim unless it is necessary.
3. Keep the victim lying down with his head level with his feet while being examined.
4. Keep the victim warm and comfortable. Remove enough clothing to get a clear idea to the extent of the injury.
5. Examined the victim gently. Treat the most urgent injuries first and then treat the other injuries to the best of your ability.

# FIRST AID RULES

6. Avoid allowing the victim to see his own injury. Assure him that his condition is understood and that he will receive good care.
7. Do not try to give any solid or liquid substance by mouth to an unconscious victim.
8. Do not touch open wounds or burns with fingers or other objects except when sterile compresses or bandages are not available and it is absolutely necessary to stop bleeding.
9. Do not try to arouse an unconscious person.
10. Seek medical attention immediately.



# PRIORITY OF TREATMENT

- Some injuries are more serious than others and in general they should always be treated in the following order:
  1. AIRWAY - Casualties with airway problems.
  2. BREATHING - Casualties with difficulty in breathing or whose breathing has stopped
  - 3 CIRCULATION - Casualties with bleeding wounds or are in shock.
  4. DISABILITY - Casualties with other injuries, e.g. breaks and burns.

# Initial assessment

- Safety (yours and the victims),
- Mechanism of the injury (how did it happen),
- Medical information devices (“Medic Alert” tags)
- Number of casualties
- Bystanders

Always avoid contact with blood or other body fluids. Use latex gloves whenever possible.








# Things you should have:







- ☑ Two pairs of Latex, or other sterile gloves.
- ☑ Sterile dressings to stop bleeding.
- ☑ Cleansing agent/soap and antibiotic towelettes to disinfect.
- ☑ Antibiotic ointment to prevent infection.
- ☑ Burn ointment to prevent infection.
- ☑ Adhesive bandages in a variety of sizes.

- ☑ Eye wash solution to flush the eyes or as general decontaminant.
- ☑ Thermometer
- ☑ Prescribed medical supplies such as glucose and blood pressure monitoring equipment and supplies.

# Family Kit [?] general purpose family first aid kit.

- [A] tweezers
- [A] scissors
- [A] syringe
- [A] swab
- [A] antiseptic towelettes
- [A] gauze dressing
- [A] non-adherent dressing
- [A] trauma pad
- [A] gauze bandage
- [A] tape
- [A] adhesive strips
- [A] adhesive bandages
- [A] cotton tipped applicators

-  cotton balls
-  pill vials
-  safety pins
-  wash towellettes
-  eye drops
-  surgical scrub brush
-  surgical gloves

-  bandage
-  gauze
-  tape
-  antiseptic wipes
-  iodine wipes
-  copy of this first aid guide

# Assessment of and Positioning the Casualty

- a. CHECK for responsiveness — establish whether the casualty is conscious by gently shaking him and asking, “Are you OK?”
- b. CALL for help.
- c. POSITION the unconscious casualty so that he is lying on his back and on a firm surface

# Airway

- Failure to maintain the open airway will prevent the casualty from receiving an adequate supply of oxygen.
- Therefore, while maintaining an open airway the rescuer should check for breathing by observing the casualty's chest and performing the following actions within 3 to 5 seconds:



- (a) LOOK for the chest to rise and fall.
- (b) LISTEN for air escaping during exhalation by placing your ear near the casualty's mouth.
- (c) FEEL for the flow of air on your cheek
- (d) PERFORM rescue breathing if the casualty does not resume breathing spontaneously.

# Procedure

1. Restore Breathing: A person becomes brain dead in 6 minutes if breathing is not restored.
2. Stop Severe Bleeding: Without blood, oxygen can not get to the vital organs of a persons body.

# Procedure

3. Treat Shock: A victim's mind and body must work together in order to be healthy. Never overlook shock situations, be they mental or physical.
4. Call advanced medical help immediately: Always realize that you are providing a stop-gap function to an injured person. Always obtain trained medical assistance as soon as possible. It also is good first aid practice to have even minor wounds checked when expert medical assistance is available.

# ASSESSING THE SITUATION

## What to Treat First

1. Don't panic. You will be able to assess the situation more effectively. Remember, psychological support is also important.
2. Remember the ABCs of Life Support:
  - Airways open – Open and maintain victim's airway.
  - Breathing restored – If victim is not breathing, begin rescue breathing techniques immediately.
  - Circulation maintained – If no pulse is present, perform cardiopulmonary resuscitation (CPR) techniques.
  - REMEMBER, to be able to perform CPR effectively, it is essential to be properly trained.

# ASSESSING THE SITUATION

3. Check for bleeding. Apply direct pressure and elevate injured limb.
4. Look for signs of shock and broken bones (fractures).
5. Check for emergency medical identification on the victim.
6. Get professional medical help quickly. Know emergency numbers, such as 999. Telephone appropriate authorities (ambulance, police, poison or fire department) and describe the problem. Be sure to give your name, location and the number of persons involved.

# ASSESSING THE SITUATION

7. Loosen any clothing that may restrict victim's breathing or interfere with circulation.
  8. Never give an unconscious person anything by mouth.
  9. DO NOT move injured persons unless situation is life-threatening. Keep victim still, quiet and warm
- Victims with broken bones (fractures) should not be moved until a splint has been properly applied.

# BURNS & SCALDS

## CAUTION

- DO NOT clean burns or break blisters. DO NOT remove any clothing that sticks to burn. DO NOT apply grease, ointment or medication to a severe burn. DO NOT use cotton or material with loose fibers to cover burns.

# TREATMENT

First degree burns – redness or discoloration of skin surface; mild swelling and pain.

1. Apply cool, wet cloths or immerse in water. DO NOT use ice.
2. Blot gently; apply a dry, sterile pad if necessary.
3. Usually medical treatment is not necessary; however, if severe exist, call for professional medical help. Be alert for signs of shock.



# TREATMENT

Second degree burns – deep burn with red or mottled appearance; blisters; considerable pain and swelling; skin surface appears wet.

- If arms and legs are affected, elevate above heart level. Burns may be deep and potentially serious, requiring medical treatment depending on extent and location.
- Be alert for signs of shock and infection.

# TREATMENT

- Third degree burns – deep tissue destruction with a white or charred appearance; no pain. Call for professional medical help immediately. Be alert for signs of shock.

# CUTS & SCRAPES

BEFORE INITIATING ANY FIRST AID TO CONTROL BLEEDING, BE SURE TO WEAR GLOVES TO AVOID CONTACT OF THE VICTIM'S BLOOD WITH YOUR SKIN.

1. CLEAN... wound and surrounding area gently with mild soap and rinse. Blot dry with sterile pad or clean dressing.
2. TREAT... to protect against contamination.
3. PROTECT... and cover to absorb fluids and prevent further contamination. (Handle only the edges of sterile pads or dressings.) Secure with first aid tape to help keep out dirt and germs.

# BLEEDING

- BEFORE INITIATING ANY FIRST AID TO CONTROL BLEEDING, BE SURE TO WEAR GLOVES TO AVOID CONTACT OF THE VICTIM'S BLOOD WITH YOUR SKIN.

## TREATMENT

1. Act quickly. Have victim lie down. Elevate injured limb higher than heart unless you suspect a broken bone.
2. Control bleeding by applying direct pressure on the wound with a sterile pad or clean cloth.

# BLEEDING

3. If bleeding is controlled by direct pressure, bandage firmly to protect wound. Check pulse to be sure bandage is not too tight.
  4. If bleeding is not controlled by use of direct pressure, apply a tourniquet only as a last resort.
  5. Call for professional medical help immediately.
  6. If you are bleeding and have no one to help you, call for professional medical help.
- Lie down, so your body weight applies pressure to the bleeding site.

# BREATHING PROBLEMS

- ESTABLISH NON-RESPONSIVENESS AND ACTIVATE EMERGENCY MEDICAL SERVICES (EMS) OR CALL FOR HELP.
- SYMPTOMS
- May include: Shortness of breath, dizziness, chest pain, rapid pulse, bluish-purple skin color, dilated
- pupils, unconsciousness.

# TREATMENT

- For victim who has stopped breathing:
- 1. Lay victim flat on back. Tilt the head back with one hand to open airway, while placing two fingers of the other hand under the chin.
- 2. Clear airway, using your fingers in a hooked fashion to remove any solid or liquid obstructions.
- 3. Look, listen, and feel for respiratory movement for 5 seconds. If breathing is absent, pinch victim's nostrils closed, take a deep breath, completely cover victim's mouth, and give two slow, full breaths.
- 4. Check for carotid pulse in neck and for signs of breathing.

# TREATMENT

5. If pulse is present:

For adults – continue rescue breathing at a rate of one strong every five seconds.

Re-check for pulse and breathing every twelve breaths.

For infants and small children – breathe shallow breaths at a rate of one every three seconds or 20 per minute.

6. If pulse is not present, begin Cardiopulmonary Resuscitation (CPR).

For adults... Exert enough pressure to depress the breastplate 1 1/2 to 2 inches.

Continue compressions. Every fifteen compressions should be followed with a pause by two rescue breaths.



# TREATMENT

- For children... Encircle the chest and depress about a third. Continue compressions at a rate of 100 per minute "one, two, three..."

# TREATMENT

- For infants... Use only fingertips. Apply moderate pressure to depress breastplate 1/2 to 3/4 inches. Continue compressions at a rate of at least 100 per minute.
- Every five compressions (3 seconds) should be followed without a pause by one rescue breath.

# FRACTURE

- SYMPTOMS
- May include: The victim hearing or feeling the bone break; area tender to touch with pain in one spot; swelling noted around suspected fracture; limb in an unnatural position; painful movement; abnormal motion; loss of function; grating sensation; discoloration of affected area.

# TREATMENT

1. Keep victim warm and still, treat for shock if necessary. DO NOT move victim until a splint has been applied unless there is danger of a life-threatening emergency.
2. If bone is suspected to be broken but does not pierce the skin (closed fracture), splint the limb before the victim is moved, immobilizing the joint above and below the suspected fracture site.

# TREATMENT

3. If broken bone pieces the skin (open or compound fracture), apply pressure to appropriate pressure point to control bleeding.
  - DO NOT try to straighten limb, return it to a natural position, or replace bone fragments.
  - DO NOT touch or clean the wound. Secure a sterile pad or clean cloth firmly in place over the wound and tie with strong bandages or cloth strips.

# TREATMENT

4. If victim must be moved, apply a splint to prevent further damage. Use anything that will keep the broken bones from moving, including broomsticks, boards or rolled magazines. Pad splints with cotton, clothes or clean cloths tied firmly (but not tightly) in place. If victim complains of numbness, loosen splint.
5. Get professional medical help immediately.

# CHEMICAL BURNS

## TREATMENT

1. Remove contaminated clothing.
2. Flush burned area with cool water for at least 5 minutes.
3. Treat as you would any major or minor burn.

4. If eye has been burned:

- A. Immediately flood face, inside of eyelid and eye with cool running water for at least 15 minutes. Turn head so water does not drain into uninjured eye. Lift eyelid away from eye so the inside of lid can also be washed.
  - B. If eye has been burned by a dry chemical, lift any loose particles off the eye with the corner of a sterile pad or clean cloth.
  - C. Cover both eyes with dry sterile pads, clean cloths, or eye pads; bandage in place.
5. Consult professional medical help



# CHOKING, AIRWAY OBSTRUCTION

## Partial Obstruction with Good Air Exchange

### SYMPTOMS

- May include: Forceful cough with wheezing sounds between coughs.

### TREATMENT

- Encourage victim to cough as long as good air exchange continues. DO NOT interfere with attempts to expel object.

# CHOKING, AIRWAY OBSTRUCTION

## Partial or Complete Airway Obstruction in Conscious Victim with Poor Air Exchange

### SYMPTOMS

- May include: Weak cough; high-pitched crowing noises during inhalation; inability to breathe, cough or speak; gesture of clutching neck between thumb and index finger; exaggerated breathing efforts; dusky or bluish skin color.

# CHOKING, AIRWAY OBSTRUCTION

## TREATMENT

### For Adult Victim

- If victim is standing or sitting:
  - 1. Stand slightly behind victim.
  - 2. Place your arms around victim's waist; place your fist, thumb side in, against victim's abdomen, slightly above the navel and below the rib margins.
  - 3. Grasp fist with your other hand and exert a quick upward thrust. Repeat (five times in a rapid succession) if necessary (Heimlich Maneuver or manual thrust.)

# Heimlich Maneuver

- Determine if the person is a choking victim. A true choking victim will often have their hands around their throat and a desperate or panicked look on their face.
- Reassure the victim immediately that you're going to help him or her.
- Get the victim in a standing position

- Perform back blows to a true choking victim before proceeding to use the Heimlich maneuver. Use the heel of one hand to give back blows between the victim's shoulder blades. If nothing improves, quickly move the abdominal thrusts.
- Stand behind the victim.

Perform the Heimlich maneuver, abdominal thrusts:

- Pull inward and upward, pressing into the victim's abdomen with quick upward thrusts, using good force.
- Make the thrusts quick and forceful, as if you're trying to lift the victim off his or her feet from this position.
- Perform 5 abdominal thrusts in quick succession. Repeat the series of thrusts until the object is dislodged and expelled. The victim will cough out the obstacle obstructing their airway if this maneuver is successful.
- Use less force where the victim is a child.
- If the victim falls unconscious, stop the thrusts immediately. Be aware that this can happen at any time if the object is not removed.

# Heimlich Maneuver



# Heimlich Maneuver

Cover your fist with your other hand and thrust up and in with sufficient force to lift the victim off his feet.





# Heimlich Maneuver

- Check to see if normal breathing has returned.
- Call for help immediately if you fail to dislodge the obstruction.

# CHOKING, AIRWAY OBSTRUCTION

## PENETRATING OBJECTS

- Such as Sticks or Pieces of Metal Protruding from Body

## SYMPTOMS

- May include: Profuse bleeding; swelling and redness of injured tissue.

# CHOKING, AIRWAY OBSTRUCTION

## CAUTION

- DO NOT remove penetrating object.

## TREATMENT

1. Get professional medical help immediately.
2. If victim is fixed to object (impale), cut it off at a safe distance from skin. Immobilize object with thick dressings made from sterile pads or clean cloths secured in place with first aid tape, a belt or a bandage.

- If object is protruding from victim, DO NOT move it. Immobilize object with thick dressings made from sterile pads or clean cloths secured in place with first aid tape, a belt or a bandage. Do not apply bandage so tightly that breathing is restricted.

3. If object penetrates chest and victim complains of discomfort or pressure, quickly loosen bandage on one side and reseal. Watch carefully for recurrence. Repeat procedure if necessary.
4. If breathing problems develop, begin rescue breathing techniques immediately.
5. Treat for shock.

# POISONING

## Causes of poisoning

- Carbon monoxide gas (from furnaces, gas engines, fires, space heaters)
- Certain foods
- Chemicals in the workplace
- Drugs, including over-the-counter and prescription medicines (such as an aspirin overdose) and illicit drugs such as cocaine
- Household detergents and cleaning products
- Household and outdoor plants (eating toxic plants)
- Insecticides
- Paints

# POISONING

- Do NOT give an unconscious person anything by mouth.
- Do NOT induce vomiting unless you are told to do so by the Poison Control Center or a doctor. A strong poison that burns on the way down the throat will also do damage on the way back up.
- Do NOT try to neutralize the poison with lemon juice or vinegar, or any other substance, unless you are told to do so by the Poison Control Center or a doctor.
- Do NOT use any "cure-all" type antidote.
- Do NOT wait for symptoms to develop if you suspect that someone has been poisoned.

# POISONING

## TREATMENT

1. DO NOT give any other first aid if victim is unconscious or is having convulsions.
- Begin rescue breathing techniques or CPR if necessary. If victim is convulsing, protect from further injury; loosen tight clothing if possible.



# POISONING

2. If professional medical help cannot be reached immediately:
  - A. DO NOT induce vomiting if poison is unknown, a corrosive substance (i.e., acid, cleaning fluid), or a petroleum product (i.e., gasoline, turpentine, paint thinner, lighter fluid). DO NOT use activated charcoal.

# POISONING

- B. Induce vomiting if poison is known and is not a corrosive substance or petroleum product. To induce vomiting: Give adult one ounce of syrup of ipecac (1/2 ounce for child) followed by four or five glasses of water. If victim has vomited, follow with one ounce of powdered, activated charcoal in water, if available.
3. Take poison container (or vomitus if poison is unknown) with victim to the hospital.

# UNCONSCIOUSNESS

- Unconsciousness is when a person is unable to respond to people and activities.
- Brief unconsciousness (or fainting) is often caused by dehydration, low blood sugar, or temporary low blood pressure.

# Levels of unconscious episodes

- Brief - Examples are fainting or blacking out.
- Longer - The victim is incoherent when roused.
- Prolonged - A person in a coma, for example, can be motionless and not at all aware of his or her surroundings for a very long time.

# Primary Survey

- **Danger** - Looking for Dangers to yourself and Casualty
- **Response** - Use the Glasgow Coma Scale to ascertain level of consciousness
- **Airway** - Examining the Airway for obstruction and Cervical Spine Control in the event of any possible trauma
- **Breathing** - Look, Listen and Feel for adequate respiratory effort.
- **Circulation** - Checking the Circulation. If a carotid pulse is not palpable then resuscitation should be commenced

# UNCONSCIOUSNESS

- Do NOT give an unconscious person any food or drink.
- Do NOT leave the person alone.
- Do NOT place a pillow under the head of an unconscious person.
- Do NOT slap an unconscious person's face or splash water on the face to try to revive him.

# UNCONSCIOUSNESS

- Victim Is Not Mentally Aware; Does Not Respond to Sensory Stimuli, Such as Sound or Light

## TREATMENT

1. Call for professional medical help.
2. DO NOT move victim or give anything by mouth.
3. Keep victim warm; loosen any tight clothing.
4. Maintain an open airway. If breathing difficulties develop, begin rescue breathing techniques immediately.
5. Check for emergency medical identification tag to help determine cause of unconsciousness.

# UNCONSCIOUSNESS

- Call or tell someone to call emergency lines.
- Check the person's airway, breathing, and pulse frequently. If necessary, begin rescue breathing and CPR.
- If the person is breathing and lying on the back, and you do not think there is a spinal injury, carefully roll the person toward you onto the side. If breathing or pulse stops at any time, roll the person on to his back and begin CPR.



# UNCONSCIOUSNESS

- If you think there is a spinal injury, leave the person where you found them (as long as breathing continues). If the person vomits, roll the entire body at one time to the side.
- Keep the person warm until medical help arrives.
- If fainting is likely due to low blood sugar, give the person something sweet to eat or drink when they become conscious.

## First Aid: Convulsions



Loosen tight clothing

Lay the person on the ground

Cushion the person's head

# GENERAL INSECT STINGS

- 1. If a stinger is present, remove it by scraping away or gently pulling it out with forceps.
- 2. Apply paste of baking soda and cold cream or use a commercially available sting aid for topical relief of mosquito and other insect bites.  
Calamine lotion will also relieve itching
- 3. If multiple stings, or unusual reaction (i.e. excessive reddish skin or breathing issues), or a history of severe reactions, take victim immediately to advanced medical support.

# Bed Bug Bites

**Description:** Bedbugs are flat-bodied, oval, reddish brown and about a ¼ in size. Although not painful at first, bed bug bites usually become red, swollen and itchy. Reactions to bites range from mild to severe.

**Treatment:** Apply paste of baking soda and cold cream or use a commercially available sting aid for topical relief of bed bug bites.

# Bee & Wasp Stings

- Description: A very sore area that is red and swollen. Usually there is a stinger protruding from the skin.

## Treatment:

1. Scrape the stinger away with the edge of a credit card, knife blade, or thumbnail. Do not try and squeeze the stinger out, as this will cause more bee/wasp venom into the skin.
2. After removing the stinger, wash the area with soap and water.
3. Apply a cool washcloth or ice pack.

# Bee & Wasp Stings

4. Some people have symptoms of severe allergic reactions are:
  - shortness of breath
  - thickening of the tongue
  - sweating
  - an anaphylactic shock
  - Seek medical help immediately if you have an allergic reaction.

# Scorpion Sting

Description: Usually found in the south western portions of the US. Less dangerous than the black widow, with the exception of babies.

Treatment:

- 1. Cold packs
- 2. Get victim to advanced medical support as soon as possible.

# Snake Bite

- = Expose the wound
  - (a) Remove clothing
  - (b) Remove shoes
  - (c) Remove casualty's jewelry (safeguard/protect jewelry. Place in casualty's pocket)
- = Determine the nature of bite
  - (a) Non-poisonous
    - - Four to six rows of teeth - No fang marks on victim
  - (b) Poisonous
    - - Two rows of teeth - Two fangs which create puncture wounds



# Snake Bite

## Signs and Symptoms

(a) Less than one hour

- Headache - Vomiting
- Faintness, confusion, unconscious

(b) One to three hours after.

- Drooping eyelids - Double vision (Diplopia)
- Difficulty in swallowing - Enlarged lymph glands
- Abdominal pain - Dark urine
- Rapid pulse - Hemorrhage

(c) After three hours

- Paralysis in large muscles - Respiratory paralysis
- Circulatory failure

# Snake Bite

## Treatment

### » (a) Non-poisonous

- - Cleanse/disinfect wound
- Use soap and water or an antiseptic solution.
- Use iodine (if casualty is not allergic to it)

CAUTION: If the bite cannot be positively identified as poisonous or non-poisonous, treat as a poisonous bite.

# Snake Bite

## »(b) Poisonous

- - Rest the casualty / have casualty lie down
- - Keep casualty still to delay venom absorption
- - Apply broad bandage
- - Keep bitten part below heart level
- - Immobilize the limb
- - Bring transport to casualty

# Snake Bite

- = DON'TS
  - (a) Cut or incise wound
  - (b) Apply tourniquet
  - (c) Wash bitten area

# Sprains

- A sprain is defined as tears of ligaments supporting a joint.
- Symptoms include pain at the joint, swelling and possibly discoloration.

# Sprains

## Treatment:

- Elevate the sprained portion of the body if possible. For sprained wrist, put in a sling, place sprained ankles on a pillow elevated
- Apply cold compress (i.e. ice in a bag) or allow cold running water over the sprain for the first 6 or 8 hours. After 24 hours, apply hot compress

# Foreign body in the eye



# Splinting

- When splinting a painful injury, it's best to "splint it where it lies."
- Place the splint so the extremity stays in the position you found it in.
- It's best not to try to straighten out a deformity, unless it's necessary to get the victim out of the wilderness.



# General Principles of Splinting

- 1) Splint fracture where it lies – DO NOT reposition.
- 2) Immobilize fracture site before moving casualty.  
Splint should immobilize joint above and below fracture site.
- 3) Pad splints before applying.
- 4) Dress all wounds and/or open fracture (exposed bones) prior to splinting.
- 5) Check for neurovascular function before, during and after application of splint.

# Splinting



# Splinting



# Triangular bandage



# How to bandage a hand



# Tensor bandages



# Elastic compression bandage



# Adult CPR





# Adult CPR

- Attempt to wake victim.
- Begin chest compressions.
- Begin rescue breathing
- Repeat chest compressions.
- Repeat rescue breaths.
- Keep going. Repeat steps 4 and 5 for about two minutes (about 5 cycles of 30 compressions and 2 rescue breaths).

# Recovery position



# Reference

- <https://www.stjohn.org.nz/first-aid/first-aid-library>