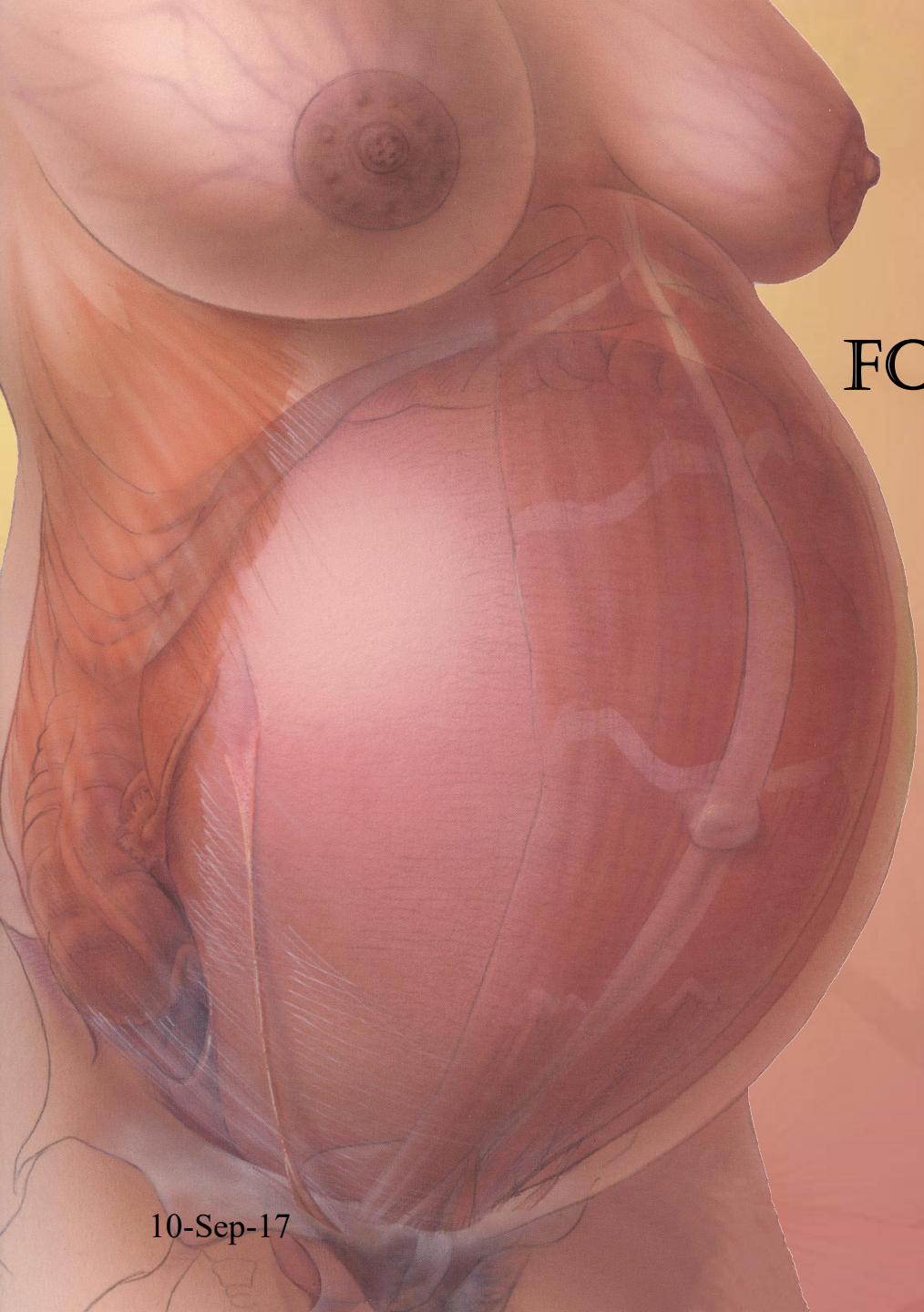

FOCUSED ANTENATAL CARE

KENNEDY K.

Outline

1. Background
    a. Definition of antenatal care.
    b. Aim of antenatal care
    c. The risk approach
    d. Focused antenatal care
    e. The objectives of focused antenatal care
2. Management
    a. Schedule of visits
    b. Contents of visits
3. Summary of Mother and Child Health booklet

Introduction

- Every year there are an estimated 200 million pregnancies in the world.
- Each of these pregnancies is at risk for an adverse outcome for the woman and her infant.
- While risk can not be totally eliminated, they can be reduced through effective, affordable, and acceptable maternity care.
- To be most effective, health care should begin early in pregnancy and continue at regular intervals.

Antenatal Care – its role in safe motherhood

- Antenatal care clinics started in US, Australia, Scotland between 1910–1915
- New concept - screening healthy women for signs of disease
- By 1930's large number (1200) ANC clinics opened in UK
- No reduction in maternal mortality
- However, widely used as a maternal mortality reduction strategy in 1980's and early 1990's

Is ANC important? YES!!

- Early detection of problems and birth preparation

Focused Antenatal care (FANC)

- A minimum number of clinic visits with specific focused activities for **assessment**, **treatment, prevention** and health **promotion**.
- It is personalized care provided to a pregnant woman which emphasizes on the woman's overall health, her preparation for childbirth and readiness for complications (emergency preparedness)
- Prevention or early detection of and prompt management of complications.
- It is timely, friendly, simple and safe service to a pregnant woman.

Focused Antenatal Care (FANC)

- It is personalized care provided to a pregnant woman which emphasizes on the woman's :
  - overall health,
  - her preparation for childbirth
  - readiness for complications (emergency preparedness)
- It is a safe service to a pregnant woman that is:
  - Timely, friendly and simple
- It is one of the High Impact Interventions (HII) for reducing maternal and peri-natal deaths

Women Friendly ANC

- Simpler, safer, friendly and accessible.
- Clients feel **cared for** and **respected** by their providers.
- **Listening** to a client's concerns is as important as giving advice.
- Provides **privacy**, **confidentiality**, and full and accurate **information**.

AIM OF FANC

- To achieve a good outcome for the mother and baby and prevent any complications that may occur in pregnancy, labour, delivery and post partum

Goals of Focused ANC:

- The major goal of focused antenatal care is to help women maintain normal pregnancies through:
  1. Identification of pre-existing health conditions
  2. Early detection of complications arising during the pregnancy
  3. Health promotion and disease prevention
  4. Birth preparedness and complication readiness planning

1. Identification of Pre-existing Health Conditions:

- As part of the initial assessment, the provider talks with the woman and examines her for signs of chronic conditions and infectious diseases.
- Pre-existing health conditions such as HIV, malaria, syphilis and other sexually transmitted diseases, anemia, heart disease, diabetes, malnutrition, and tuberculosis may affect the outcome of pregnancy,
- These require immediate treatment, and usually require a more intensive level of monitoring and follow-up care over the course of pregnancy.

NB

- The new focused antenatal care model **does away with screening for risk factors.**
- **Research showed that the majority of women who experienced complications were considered low risk (90% of women considered to be high risk, gave birth without experiencing a complication)**

❖ Risk assessment approach is not an efficient or effective strategy for maternal mortality reduction

❖ Risk factors do not predict problems.

❖ Every pregnant, delivering or postpartum woman is at risk of serious life-threatening complications

- ➢ Risk factors cannot predict complications*: (e.g. young age does not predict eclampsia)*
- ➢ Every pregnant woman should be prepared for the possibility of complications

2. Early Detection of Complications

- The provider talks with and examines the woman to detect problems of pregnancy that might need treatment and closer monitoring.
- Conditions such as:
  - Severe anemia (Hb <7gm/dl),
  - infection,
  - vaginal bleeding,
  - hypertensive disorders of pregnancy, and
  - abnormal fetal growth or
  - abnormal fetal position after 36 weeks may be or become life-threatening if left untreated.
  - RTI's/STI's, HIV and AIDS, TB and Malaria

3. Health Promotion and Disease Prevention

- Counseling about important issues affecting a woman's health and the health of the newborn is a critical component of focused ANC.
- Discussions should include:
  - How to recognize danger signs, what to do, and where to get help
  - Good nutrition and the importance of rest
  - Hygiene and infection prevention practices
  - Risks of using tobacco, alcohol, local drugs, and traditional remedies
  - Breastfeeding
  - Postpartum family planning and birth spacing.

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- All pregnant women should receive the following preventive interventions:
  - Immunization against tetanus
  - Iron and folate supplementation.
- In areas of high prevalence women should also receive:
  - Presumptive treatment of hookworm
  - Voluntary counseling and testing for HIV
  - Protection against malaria through intermittent preventive treatment and insecticide-treated bed nets
  - Protection against vitamin A and iodine deficiencies.

4. Birth Preparedness and Complication Readiness

- Approximately 15% of women develop a life-threatening complication, so every woman and her family should have a plan for the following:
  - A skilled attendant at birth
  - The place of birth and how to get there including how to obtain emergency transportation if needed
  - Items needed for the birth
  - Money saved to pay the skilled provider and for any needed mediations and supplies
  - Support during and after the birth (e.g., family, friends)
  - Potential blood donors in case of emergency.

Elements of FANC

- To promote and maintain the physical, mental & social health of mother and baby by providing education on nutrition, personal hygiene and birthing process
- To detect and treat complications arising during pregnancy, whether medical, surgical or obstretical
- To ensure that the pregnant woman makes an individual birth plan (IBP)
- To promote safe delivery of a healthy baby with minimal stress and injury to the mother & baby
- To help prepare mothers to breast feed successfully, experience normal puerperium and take good care of the child physically, psychologically and socially.

Focused Antenatal Care

Objectives

1. Early detection and treatment of problems

2. Prevention of complications using safe, simple and cost-effective interventions

3. Birth preparedness and complication readiness

4. Health promotion using health messages and counseling

5. Provision of care by a skilled attendant

Objective 1: Early detection and treatment of Problems

Service providers should identify existing medical, surgical or obstetric conditions during pregnancy. Such as:

- **Acute conditions**
  - ✓ Foetal malpresentation after 36 weeks
  - ✓ Decreased/absent foetal movement
  - ✓ Severe anaemia (Hb <7gm/dl)
  - ✓ Vaginal bleeding
  - ✓ Pre-eclampsia (increased BP, severe oedema)
- ✓ RTI's/STI's, HIV and AIDS, TB and Malaria
- **Chronic diseases**
  - ✓ diabetes,
  - ✓ heart
  - ✓ kidney problems

Focused Antenatal Care

Why detect disease/conditions and not risk assessment?

- Risk assessment approach is not an efficient or effective strategy for maternal mortality reduction
- Risk factors do not predict problems.
- Every pregnant, delivering or postpartum woman is at risk of serious life-threatening complications
  - Risk factors cannot predict complications*: (e.g. young age does not predict eclampsia)*
  - Every pregnant woman should be prepared for the possibility of complications

Research showed that the majority of women who experienced complications were considered low risk (90% of women considered to be high risk, gave birth without experiencing a complication)

Focused Antenatal Care

Management of identified disease/condition

- All conditions identified during ANC attendance should be
  - treated immediately
  - followed up during subsequent visits
- First aid should be provided
  - in severe or conditions likely to become complicated
  - before referral to levels with facilities to manage them

Focused Antenatal Care

Objective two: Prevention of complications

- The service provider should ensure prevention of conditions likely to affect good pregnancy outcomes by providing:
  - Tetanus toxoid to prevent maternal and neonatal tetanus,
  - Iron and folic acid supplementation to prevent anaemia
  - SP for IPT in malaria endemic areas and ITNs to prevent malaria

Cont..

- Counselling on practice of environmental and personal hygiene to prevent infestation with intestinal worms
- Recommended presumptive treatment of hookworm infestation with Mebendazole 500mg STAT anytime after the first trimester*

***Basic Maternal and Newborn Care: A Guide to Skilled Providers**

Focused Antenatal Care

Objective three: Birth preparedness and complication readiness

- Service providers should discuss components of **birth plan** which include:
  - The importance of having
    - ✓Place of birth, transportation and emergency funds
    - ✓Skilled attendant and birth companion
    - ✓Items for clean and safe birth and for newborn
    - ✓Knowledge of danger signs; what to do if they arise
  - Usefulness of
    - ✓ Identifying a decision maker
    - ✓ Saving emergency funds
    - ✓ Planning for emergency transport
    - ✓ Identifying a blood donor

SUMMARY: COMPONENTS OF BIRTH PLAN

i. The Expected Date of Delivery (EDD)
ii. The danger signs in pregnancy, childbirth and the postpartum period.
iii. The danger signs for the newborn.
iv. She should decide on who will be the skilled attendant at her delivery and where
v. She should be advised to identify a birth companion
vi. What transport she will use before, during labour and after delivery if complications arise
vii. How she will raise funds for transport, delivery charges and for essential items/supplies
viii. Identification of possible blood donors in case of haemorrhage
ix. Her postpartum contraception plans and subsequent reproductive goals
x. A decision maker is identified in case of emergency

Focused Antenatal Care

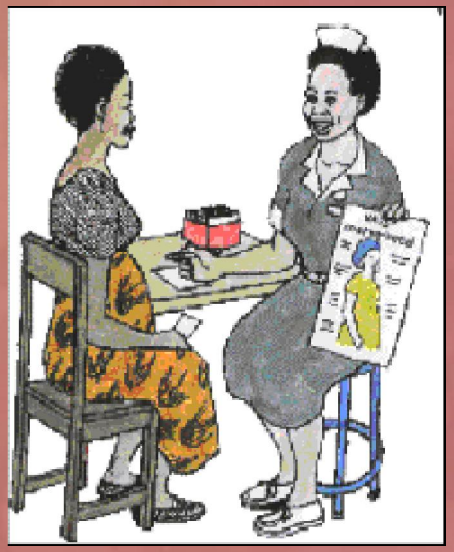
- **Birth partners/companions**
  - ✓ may be the father of the baby, a sister, a mother-in-law, mother, an aunt or friend
  - ✓ should be involved in making the individual birth plan (IBP)
  - ✓ should provide support to the woman particularly during preconception, pregnancy, delivery and postpartum period

Make sure clients at your facility know that you welcome birth partners/ companions

Birth preparedness contd….

❖**Individual birth plan ensures that the client:**

- Can tell
  - ✓ the danger signs in pregnancy and delivery
- Identifies a
  - ✓ skilled birth attendant
  - ✓ health facility for delivery/emergency
  - ✓ decision-maker in case of emergency
- Knows
  - ✓ when her baby is due
  - ✓ how to get money in case of emergency
  - ✓ what to do if emergency occurs
- Has
  - ✓ a transport plan in case of emergency
  - ✓ a birth partner/companion for the birth
  - ✓ collected the basic supplies for the birth



Birth preparedness cont..

Specific transport questions for the client

- Where will you **deliver?**
- Where will you go in case of **an emergency**?

- **Where** is it located?
- **How** will you get there?

- **How far** is it from your home?
- **How long** will it take to get there?
- Have you made this **journey before**?
- **How much** will it cost to arrange for transport?
- **How** will you raise the funds for this transport?

Birth preparedness cont..

- **Mother-Baby Package**
  - Cord clamp and a new unused blade

  - Clothing for the baby and mother
  - Money to pay for transport, delivery fees, etc.

  - Sanitary items

  - Napkins,
  - *Lessos*

Family members should **help purchase** the items in the **mother-baby package** and help pay for transport and the delivery costs.

Birth complication readiness

- **Why know the danger signs?**
  - Many families of women who die in pregnancy, delivery or postpartum often don't recognize that a serious problem is **occurring!**
  - Sometimes the husband/mother-in-law/mother makes all the decisions
  - Often the decision to seek care and arrange for transport is **delayed as much as 1-3 days** after recognition of a life - threatening complication
- ***What can we do?***
  - Make sure clients, friends and family members can recognize danger signs and are involved in antenatal care and delivery! The birth partner is a decision maker

Birth complication readiness cont….

- **Danger signs in pregnancy**
  - Any vaginal **bleeding in pregnancy (abortion, APH)**
  - Severe **headache** or blurred vision (high blood pressure, eclampsia)
  - **Swelling** on the face and hands (high blood pressure, eclampsia)
  - Convulsions or **fits** (high blood pressure, eclampsia)
  - High **fever >38°C (infection)**
  - **Laboured** breathing (pneumonia, heart problems, severe anemia)

Birth complication readiness cont….

- **Danger signs *during labour and delivery***
  - Severe headache/visual disturbances
  - Severe abdominal pain
  - Convulsions or fits during labour
  - High fever with or without chills
  - Foul vaginal discharge
  - Labour pains for more than 12 hours
  - Ruptured membranes without labour for more than 12 hours
  - Excessive bleeding during delivery
  - Cord, arm or leg prolapse

Birth complication readiness cont….

❖**Danger signs in pregnancy**

- Any vaginal **bleeding in pregnancy (abortion, APH,)**
- Severe **headache** or blurred vision (high blood pressure, eclampsia)
- **Swelling** on the face and hands (high BP, eclampsia)
- Convulsions or **fits** (high blood pressure, eclampsia)
- High **fever >38°C (infection)**
- **Laboured** breathing (pneumonia, heart problems, severe anemia)

Birth complication readiness cont….

- **Danger signs in pregnancy cont..**
  - Premature labour pains
  - Draining of liquor
  - Reduced, increased or absent fetal movements(fetal distress, IUD)
  - Feeling very weak or tired (anemia)
  - Vaginal discharge, genital ulcers, painful urination (RTIs)
  - Abdominal pain (RTIs, early labor)
  - Persistent vomiting(severe malaria etc.)

Birth complication readiness cont….

- **Danger signs after delivery**
  - Placenta not delivered within 30 minutes of baby's birth
  - Excessive bleeding after delivery
  - Severe abdominal pain
  - Convulsions or fits
  - High fever with or without chills
  - Foul vaginal discharge due to infections
  - Mood swings (depression)

Birth complication readiness contd….

- Recognize danger signs and get prompt medical attention!
  - Acting quickly is important because a woman could die in a short period of time:
    - ✓ in **antepartum hemorrhage** she can die in just **12 hours.**
    - ✓ in **postpartum hemorrhage** she can die in just **2 hours.**
    - ✓ with complications of **eclampsia** in as few as **12 hours** and
    - ✓ with **sepsis** in about **3 days!**

Birth complication readiness contd….

- **Immediate Attention!**
  - Don't lose precious time…
  - **Seek help in time!!**

Group work

1. What is the role of fathers /partners in ANC care?

2. What are some of the reasons why clients decide to deliver at home rather than a health facility?

Objective four: Health promotion using health messages and counseling

Maintain the woman's health and survival through health education and counselling on:

- Nutrition
- Rest and hygiene
- Safer sex
- Care for common discomforts
- Use of SP for IPT and ITNs/LLINs
- Drug compliance
- Family planning/ spacing of pregnancy
- Early and exclusive Breastfeeding
- Newborn care

Health promotion messages and counseling cont…

Don't forget to counsel mother on:

- Importance of attending postpartum clinic:
  - **within 48hours, at 2 weeks, at 4-6 weeks, at 4-6months**
- Follow up for exposed babies to
  - TB & HIV
- Importance of attending well baby clinic (MCH/FP Clinic)
  - for immunizations & growth monitoring
- To chose a postpartum family planning method
- Infant feeding options

Teach mothers about the importance of immunizations, vitamin A and their schedules:

Period	Vaccine
Birth	BCG, Oral polio
6 weeks	Pentavalent, Pneumococcal
10 weeks	Pentavalent, Pneumococcal
14 weeks	Pentavalent, Pneumococcal
6 months	Vitamin A
9 months	Measles, Yellow fever*
12 months	Vitamin A
18 months	Measles

- **All babies delivered at home should be taken to the health facility for immunization**

** Only in selected districts in Rift Valley*

Objective 5:
Provision of Skilled Care at Birth

- Skilled care is provided by a skilled birth attendant
- A skilled birth attendant is a trained doctor, clinical officer, nurse or midwife.
- *A trained TBA is NOT a skilled birth attendant*
- By 2015, it is expected that three quarters of pregnant women should receive skilled care at birth
- Currently only 44% of pregnant women receive skilled care at birth *(KDHS 2008/9)*
- A skilled attendant offers services either at the health facility or within the community *(community Midwifery practice)*
- FANC provides an opportunity to increase skilled care

The four comprehensive, personalized ANC visits

WHO RECOMMENDATION

- Women can benefit from just a **few antenatal visits**, as long as those visits are thorough.
- Ideally women should receive at **least 4 thorough, comprehensive, personalised** antenatal visits, spread out during the entire pregnancy
- Always view **each visit** as if it were the **only visit** the woman may make.
- Many women may not come for 4 visits

Focused Antenatal Care

Four comprehensive, personalized antenatal visits:

1st visit: <16 weeks

2nd visit: 16 - 28 weeks

3rd visit: 28 - 32 weeks

4th visit: 32 - 40 weeks

Note:

Although these are the recommended minimum number of ANC visits, due to additional interventions service providers may give additional visits as appropriate

1st visit

- Registration
- Advise on IBP
- History taking
- Perform physical exam
- Look for anemia
- Screen for syphilis
- Give tetanus toxoid, iron and folate.
- Give SP if ≥16 weeks
- Tell her about danger signs
- Counsel for HIV (and test if possible)
- Screen for TB

2nd visit

- Check on IBP
- Give first SP (if not given previously)
- Give iron and folate
- Listen for fetal heart sound
- Counsel and educate

3rd visit

- Check on IBP
- Give second SP
- Give iron and folate
- Give tetanus toxoid (if 4 weeks from 1st dose)
- Listen for fetal heart sound
- Counsel and educate

4th visit

- Update on IBP
- Look for anemia
- Check fetal presentation
- Give iron and folate
- Listen for fetal heart sound
- Counsel and educate

The role of fathers/partners in antenatal care

- Many men are uncertain about how they can contribute to a woman's health during pregnancy, labor and delivery and postnatal period. They should:
  - Support and encourage women throughout pregnancy, labor, delivery and postnatal period
  - Protect their spouses from acquiring STIs (or HIV) by being faithful or consistently and correctly using condoms
  - Encourage mothers to attend antenatal/postpartum clinic
  - Accompany their wives/partners to the health facility during childbirth

Barriers to utilization of services

- By clients
  - Perceived lack of facilities providing high quality essential obstetric care?
- Due to facility issues
  - Frequent shortage of essential commodities and staff
  - Poor infrastructure
  - Poor referral system
  - Services not acceptable?
- Due to socioeconomic issues
  - Services not accessible?
  - Services not affordable?
- Due to staff issues
  - Unskilled staff
  - Negative staff attitude

Recap

- Mention the purpose of focused antenatal care?
- 5 important questions to ask about an Individual Birth Plan (IBP)
- Danger signs in pregnancy
- Danger signs in labour and delivery
- Danger signs after delivery

PART TWO

HISTORY TAKING & PHYSICAL EXAMINATION

First ANC visit

- Should take place as early as possible, preferably in the first trimester.
- Baseline data is collected to form a basis for comparison during later visits
- Any abnormalities can be detected and treated before they have a detrimental effect

Registration

- To every pregnant woman visiting the ANC clinic
  - ❖A number is given
- An ANC booklet is issued

HISTORY TAKING

- Remember:
  - Communication skills
    - Especially interviewing skills
  - Preparing self, equipment and environment

PROCEDURE MANUAL

HISTORY TAKING: components

1. Demographic data

- Name, age,marital status, occupation, educational level, next of kin, phone no., address ……

2. Presenting complaint

- Reason for attending clinic

3. History of current pregnancy

- 1st day of LMP
- Gravida -total no. of pregnancies regardless of outcome
- Parity - total no. of births after 24 weeks of gestation
- Abortions - no. of pregnancies lost before completing 24 weeks
- Determination of EDD
  - Naegel's rule; gestational calculator, ultrasound

- Planned / unplanned pregnancy
- Date booking was done
  - Test results
  - No. of visits
  - Earlier and latest ultrasound- date, findings

4. Menstrual/gynaecology history

- Menarche
- Menstrual cycle:
  - duration, days of bleeding, regularity, pads used/day.
- Contraception used
- Gynaecological procedure(s) undergone
- Gynaecological conditions/problems
- Pap smear

5. Past obstetric history

- Previous pregnancies (from 1st to most recent)
  - Mode of delivery- SVD, CS
  - Duration of pregnancy: pre-term, term, post-term
  - Termination of pregnancy- abortion
  - Singleton, twins, triplets
  - Birth weight of babies
  - Place of delivery
  - Complications to the mother or child

6. Past medical & surgical history

- History of chronic conditions:
  - Diabetes mellitus (DM), hypertension, epilepsy, tuberculosis
- Surgical procedures undergone
- Allergies-food, medication
- Blood transfusion

7. Family history

- History of:
  - Complicated pregnancy and delivery
  - Multiple births-twins, triplets
  - Health conditions-hypertension, DM

8. SOCIAL HISTORY

- More details on:
  - Marital status
  - Occupation
  - Habits: alcohol, smoking, illegal drugs

PHYSICAL EXAMINATION

- Head to toe
- Emphasis on:
  - Detection of/rule out anemia
  - Breast examination
  - Abdominal examination
  - Lower limbs to evaluate/rule out varicose veins, edema, deep venous thrombosis.

Weight and height measurement

- Take weight (Kg) and height (cm/m) and record them on the card/booklet
  - Weight <150cm is a risk for cephalo-pelvic disproportion
  - Excessive weight gain (>1kg/week) may indicate edema
  - Lack of increase in weight or loss of weight may indicate malnutrition

Blood pressure

- Take note of factors that can falsely elevate the blood pressure e.g. anxiety, position.

ANC profile

Urinalysis

- Done to exclude abnormalities
- Done at every visit using a dipstick method
- To evaluate:
  - Ketones
  - Glucose (glycosuria)
  - Protein due to leucorrhea, UTI's or pre-eclampsia

ANC profile

Blood tests

- ABO blood group
- Rhesus (Rh) factor
- Full blood count especially hemoglobin
  - Repeat at 28-32 weeks; why???
- VDRL test
- HIV antibody test

- Others **not routinely done** include screening for:
  - Hepatitis B
  - Cytomegalovirus and toxoplasmosis

ABDOMINAL EXAMINATION

- Carried out to establish & affirm that fetal growth is consistent with gestational age during the progression of pregnancy
- Done at each ANC visit
- Specific aims are to:
  - Observe the signs of pregnancy
  - Assess fetal size and growth
  - Auscultate the fetal heart
  - Locate fetal parts
  - Detect any deviation from normal

- Note the following:
  - Communication throughout the procedure is vital
  - A full bladder will make the examination uncomfortable and measurement of fundal height less accurate
  - Expose only the area of the abdomen/body to palpate
  - Let the woman lay comfortably with her arms by her side to relax the abdominal muscles
  - She should then sit up to discuss findings with the midwife

Procedure

- **Preparation** of self, equipment & supplies, environment, client

Refer to procedure manual

Inspection

- Size and shape:
  - Uterus long than broad= longitudinal lie
  - Broad and low= transverse lie
  - Saucer-like depression at or below umbilicus =OPP
- Fetal movements
- Umbilicus less dimpled with advancing pregnancy, may protrude later in pregnancy
- Skin changes:
  - Stretch marks – striae gravidarum
  - Linea nigra
  - Scars- previous surgery??

Palpation

- The palpating hands should be clean and warm. Cold hands:
  - Don’t have the necessary acute sense of touch
  - May induce contractions of the abdomen and uterine muscles
  - Are uncomfortable to the client
- Use pads, not tips, of fingers with delicate precision
- Hands are moved smoothly over the abdomen to avoid causing contractions

Fundal palpation

Fundal height

- The height of the fundus correlates well with gestational age especially in early weeks of pregnancy
- Fundal height is estimated at umbilicus at 22-24 weeks of gestation.

- Unduly big uterus (fundal height) expected in:
  - Large fetus
  - Multiple pregnancy
  - Polyhydramnios
- Smaller uterus than expected can occur in:
  - Incorrect LMP
  - Small fetus
  - Intrauterine growth restriction

- Fundal palpation determines which **fetal pole is present in the fundus**.
- Helps diagnose the lie and presentation
- The fetal breech:
  - gives the sensation of a large, nodular body
  - is soft in consistency and indefinite outline
- The head:
  - feels hard and round and is more freely movable and ballottable.
  - Is hard, smooth and well defined

Lateral palpation

- To locate the fetal back in order to determine position
- The fetal back:
  - Offers the greater resistance
  - Feels as a continuous smooth resistant mass

Pelvic palpation

- To determine the fetal pole lying in the pelvis
- The client should bend knees slightly to relax abdominal muscles
- Palpating hands should be directed downwards and inwards
- In cephalic presentation, the head will be felt

Pawlick's grip

- Form of pelvic palpation
- Can be used to judge the size, flexion and mobility of the head
- Lower pole of the uterus is grasped between the fingers and the thumb

NB: May cause discomfort hence use only if absolutely neccessary.

Auscultation

- To listen to the fetal heart
- Use:
  - Fetoscope (Pinard's fetal stethoscope)
  - Ultrasound equipment e.g. sonicaid or doppler
- Distinguish from maternal heart beat
- Normal range = 110-160b/min

Findings on abdominal palpation

Lie

- Relationship between the long axis of the fetus and the long axis of the uterus
- Longitudinal lie: the long axis of the fetus lies along the long axis of the uterus
- Transverse lie: the long axis of the fetus lies at right angle across the long axis of the uterus
- Oblique lie: the fetus lies diagonally across the long axis of the uterus
  - NB: ***obliquity of the uterus-*** a uterus is tilted to one side (usually the right)

Attitude

- The relationship of the fetal head & limbs to its trunk
- It should be one of flexion (normally) i.e:
  - Fetus curled up with chin on chest,
  - Arms and legs flexed forming a snug, compact mass
  - which utilizes the space in the uterine cavity most effectively

Presentation

- The part of the fetus that lies at the pelvic brim or in the lower pole of the uterus.
- Can be: cephalic (vertex, face & brow), breech, shoulder.
- When head is:
  - Flexed- vertex presents
  - Fully extended- face presents
  - Partially extended- brow presents

Presenting part

- The part that lies over the cervical os during labour and on which the *caput succedaneum* forms

Denominator

- The name of the part of the presentation used when referring to fetal position.
- Each presentation has a different denominator
  - Vertex presentation = occiput
  - Breech presentation = sacrum
  - Face presentation = mentum
  - Shoulder presentation = acromion process

NB: In brow presentation there is nodesignated denominator

Position

- The relationship between the denominator of the presentation and six points on the pelvic brim.
- Anterior positions are more favorable then posterior positions because:
  - When fetal back is anterior, it conforms to the concavity of the mothers abdominal wall and can then flex more easily, making the head to flex also and a smaller diameter presents at the pelvic brim
  - There is more room in the anterior part of the pelvic brim for the broad biparietal diameter of the head

.

Engagement

- Occur when the widest presenting transverse diameter has passed through the pelvic brim
- In cephalic presentation it is the biparietal diameter; in breech it is bitrochanteric diameter
- It demonstrates that the maternal pelvis is likely to be adequate for the size of the fetus.
- Occurs from 36 wks in primigravida; in multigravida, may ot occur until onset of labour

- On examination, engaged head in vertex presentation:
  - Only 2-3fifths of fetal head is palpable above brim
  - Head is not mobile
- If not engaged:
  - >half of head is palpable above the brim
  - Head may be freely mobile (ballotable) or immobile if it is partially settled in the brim

- Causes of non-engaged head at term
  - Cephalopelvic disproportion (CPD)
  - Multiparity
  - Occipito-posterior position
  - Full bladder
  - Wrongly calculated gestational age
  - Polyhydramnios
  - Placenta praevia or other space occupying lesion
  - Multiple pregnancy
  - Pelvic brim inclination of more than 80 degrees as occurs in high assimilation pelvis

Examination of lower limbs

- Done to evaluate/rule out varicose veins, edema, deep venous thrombosis.
- **Varicosities**
  - Are dilated, tortuous veins which are a predisposing cause of DVT
  - Ask woman about pain in legs especially calf
  - Inspect calf for reddened areas
  - Palpate gently for warmth, tenderness or swelling

Edema

- Occurs as pregnancy advances
- May be physiological
  - Occurs after arising, worsens during the day, more severe with activities and hot weather
- Symptoms:
  - finger rings feel tighter
  - Swelling of ankles
- Palpate: apply gentle fingertip pressure over tibia or ankles

You should be concerned if it reaches the knees, face or is increasing: may be pathological e.g. PIH

SUMMARY

terminology

- **nullipara** is one who has never completed a pregnancy to the stage of viability. She may or may not have aborted previously.
- **nulligravida** is one who is not now and never has been pregnant.
- **primipara** is one who has delivered one viable child.
- Parity is not increased even if the fetuses are many (twins, triplets).
- **primigravida** is one who is pregnant for the first time.
- **multigravida** is one who has previously been pregnant. She may have aborted or have delivered a viable baby.
- **multipara** is one who has completed two or more pregnancies to the stage of viability or more.
- **parturient** is a women in labor.
- **puerpera** is a woman who has just given birth.
- A woman having her first pregnancy at the age of 30 or above (FIGO – 35 years) is called **elderly primigravida**
- The minimum spacing between first birth and subsequent pregnancy should be 2 years.

‘High Risk Criteria’

- Poor obstetric history
- Short stature (below 150cm or 5ft)
- Too young, too frequent, too old.
- Nulliparity and grandmultiparity
- Size-date discrepancy

High risk criteria continued ..

- Unwanted pregnancy
- Extreme social disruption or deprivation
- Preterm labour in previous pregnancy
- Multiple gestation
- Abnormal lie or presentation

However, remember that...

- Every woman who is pregnant, in labour, or in puerperium faces risk of serious life threatening complications
- Hence the importance of availability and accessibility of emergency obstetric care at all time.

Detect and manage

- Hypertensive disease
- Anaemia, helminthic infestation
- Danger signs of pregnancy
- STIs, HIV/AIDS
- Asymptomatic bacteriuria

Preventive Care: provide as per National Guidelines:

- Tetanus toxoid immunizations
- Malaria prophylaxis or intermittent presumptive treatment (IPT) with SP
- Micronutrients including iron, folate, (and vitamin A, calcium, iodine)

Danger signs in pregnancy

- Bleeding per vagina
- Drainage of liquor
- Severe abdominal pains
- Severe headaches
- Generalized body swelling
- Reduced fetal movements

Danger Signs in Labour

- Labour pains for more than 12 hours
- Excessive bleeding during or after delivery
- Ruptured membranes >12hrs (no labour)
- Convulsions, or coma, during labour
- Cord, arm or leg prolapse

Danger signs in the postpartum period

- Excessive bleeding, fever, foul discharge
- Abdominal cramps or pains
- Painful breasts, cracked nipples, etc
- Extreme fatigue, headaches
- Facial or hand swelling

Danger signs in the newborn

- Fever, coldness, lethargy
- breathing difficult, rapid, chest retraction
- not feeding well, weak cry
- yellowness, blueness
- umbilical stump red, discharging
- eyes swollen, discharging
- convulsion

The Mother and Child Health Booklet

- On the new Ministry of Health MCH Health Booklet, you will see a place to record:
  - Personal information
  - Medical and surgical history; information on previous pregnancies, gravida and parity.
  - Findings of the general physical examination
  - A checklist to record additional data: urine, Hb, pallor, maturity, fundal height, presentation, lie, foetal heart rate and oedema
  - Intermittent Preventive Treatment for Malaria
  - Complications and/or referral information
  - Laboratory data
  - Delivery
  - Immunization and maternal medication information.
  - Post natal information and a place to record general "notes"
  - Family Planning usage

National guidelines for IPT

- Intermittent Preventive Treatment (IPT) is an effective approach to preventing malaria in pregnant women by giving antimalarial drugs in treatment doses at defined intervals after quickening to clear a presumed burden of parasites
- *The Ministry of Health Guidelines on Malaria directs us to give SP to pregnant women* ***in endemic malaria areas, at least twice during each pregnancy, even if she has no physical signs and her haemoglobin is within normal range.***
- Administer IPT with each scheduled visit after quickening (16 weeks) to ensure women receive at least 2 doses at an interval of at least 4 weeks.
- IPT should be given under Directly Observed Therapy (DOT) in the ANC clinic and can be given on an empty stomach

National guidelines for Tetanus Toxoid

Dose of TT	When to give	
1	At first contact or as early as possible in pregnancy	
2	At least 4 weeks after TT1	
3	At least 6 months after TT2 or during subsequent pregnancy	
4	At least 1 year after TT3 or during subsequent pregnancy	
5	At least 1 year after TT4 or during subsequent pregnancy	

THANK YOU