

MODULE 35: HEALTH SYSTEMS MANAGEMENT II

Code: HSM 223
Hours: 30
Credit: 03

Pre-requisite: Health Systems Management I

Module Competence

This module is designed to enable the learner apply management skills in finance, information service delivery and project management.

Module Outcomes

By the end of this module, the learner should;

1. Explain financial resource management for healthcare
2. Project Management
3. Quality Assurance in health care services
4. Health information systems
5. Explain the process of project management
6. Appreciate importance of monitoring and evaluation in health care

Module Units

Unit Name	Hours	
	Theory	Practical
1. Financial Resource Management	6	0
2. Project management	6	0
3. Disaster Management	4	0
4. Health information systems	6	0
5. Quality Assurance in Health Service	4	0
6. Monitoring and Evaluation	4	0

Module Content

Financial resource management; the role of parliament, treasury the controller and auditor general in public financial management, sources of health care financing, financial accounting systems and mechanisms, accounting documents; imprest, vouchers, per diem, facilities improvement fund (FIF), salary, allowances, vote books, budget types. **Project management** introduction, principles & concepts, the importance of planning, project planning & design and individual plans, project planning process; cycle, situation analysis, feedback, prioritization developing implementation plans, budgeting, techniques for public involvement. **Disaster**

management; concepts, terminologies & types of disasters, national policy framework, handling emergency at the health facility. **Health information systems:** health information; sources, types, systems, data collection methods, storage and analysis, information utilization; applications, policy development, decision making. **Quality assurance in health service;** quality assurance; concepts, principles, quality assurance in the healthcare setting, methods and tools of measuring quality, standards in measuring quality. **Monitoring and evaluation;** concepts, types, processes, monitoring and evaluation tools: terms of reference, monitoring tools, evaluation tools, performance indicators and targets, concepts, definitions, performance standards, work breakdown schedules (wbs), work plans, logical framework approach, reports; types, formats, characteristics of a good report.

Teaching Strategies

Interactive lecture, Small groups discussions, Power point presentation, e-learning modes, Problem based learning and study guides.

Teaching / Learning Resources

Text books, study guides, journals, internet, LCD Projectors, Laptops , white board, whiteboard markers.

Assessment strategies

Formative; continuous assessment tests, clinical assessment, random tests, end of semester examination, etc.

Summative; OSCE, Clinical assessments, logbooks, research defense, FQE.

References/Further Readings

Cripps, Gilbert, et al. *Guide to Designing and Managing Community-based Health Financing Schemes in East and Southern Africa*. Partnerships for Health Reform Plus and USAID/Regional Economic Development Services Office in East and Southern Africa, 2000. <http://www.phrplus.org/Pubs/hts8.pdf> (accessed March 2, 2005).

Donabedian, Avedis, *Explorations in Quality Assessment and Monitoring*, Ann Arbor, MI: Health Administration Press, 1980, pp. 5-6.

Liebler, J.G. and McConnell, C.R. (2016), *Management Principles for Health Care Organizations*. (1st Edition). Elsevier Ltd., Washington, USA.

E-book. Jones and Barttlet.

- Management Sciences for Health. "Business Planning to Transform Your Organization." The Manager vol. 12, no. 3, 2003.
- Managing Drug Supply. 2nd Edition. West Hartford, Connecticut. Kumarian Press, Inc. Management Sciences for Health and World Health Organization. 1997.
- Moseley, G.B. III. (2018), Managing Health care Business Strategy. E-book: Book stacks. Jones and Barttlet.
- Nowick, M. (2018), Introduction to the Financial Management of Health care Organizations. E-book. Jones and Barttlet publishers.
- Roemer, M.I., and Montoya-Aguilar, C., .Quality Assessment and Assurance in Primary Health Care,. WHO Offset Publication No., 105, World Health Organization, Geneva Switzerland,1988 Donabedian, pp. 5-6.
- Sullivan, Eleanor J., and Phillip J. Decker. *Effective Leadership and Management in Nursing*. 4th ed. Menlo Park, CA: Addison Wesley Nursing, 1997.
- Weaver, C. A, Bell, Kim, G.R. and Kiel, J.M. (2016), Health care Information. (Editors). E-book.
- Wolper, L.F. (2010), Health Care administration managing delivery. E-book. Jones and Barttlet publishers.

MODULE 36: PHARMACOLOGY AND THERAPEUTICS IV

Code: PTH 226
Hours: 60
Credit: 6

Pre-requisites: Human Physiology, Medical Microbiology, Medical Biochemistry, Human Anatomy and Parasitology.

Module Competence

This module is designed to enable the learner acquire the appropriate knowledge, skills and attitudes in drug management of patients with cardiovascular, genitourinary, nervous system, and bone mineral disorders.

Module Outcomes

By the end of this module the learner should;

1. Prescribe diuretics and drugs acting on the cardiovascular system effectively.
2. Demonstrate understanding of drugs acting on genitourinary system and their use in patient management.
3. Demonstrate knowledge of drugs acting on endocrine system in patient management.
4. Prescribe drugs acting on autonomic and central nervous system appropriately
5. Utilize various drugs in the treatment of bone mineral disorders

Module Units

Unit Name	Hours	
	Theory	Practicals
1. Diuretics and drugs acting on the cardiovascular system	20	0
2. Drugs acting on the genitourinary system	08	0
3. Drugs acting of the endocrine system	08	0
4. Drugs acting on the autonomic and central nervous system	20	0
5. Drugs used in the treatment of bone mineral disorders	04	0

Module Content

Diuretics and Drugs Acting on the Cardiovascular System; diuretics (classification, osmotic, mercurial and carbonic anhydrase inhibitors, thiazides, loop diuretics and potassium sparing diuretics), cardiovascular drugs (classification; cardiac glycosides, anti-angina drugs, anti-arrhythmic drugs; anticoagulants, protamine sulphate, anti-platelet and fibrinolytic drugs, haematinics; anti-hypertensives (vasodilators, adrenergic neurone blocking agents / alpha adreno-receptor blockers), drugs for dyslipidaemia (statins, bile acid binding resins, fibrates)

Drugs acting on the Genitourinary System; classification, urinary antiseptics; drugs for urinary retention and enuresis, preparations acting on the uterus (prostaglandins and oxytocics, myometrial relaxants), drugs that alter urine pH. **Drugs Acting on Endocrine System;** classification, insulin preparations, oral hypoglycaemic agents (sulphonylureas, biguanides, meglitinides, thiazolidinediones); thyroid hormone and antithyroid agents /parathyroid medications; anabolic steroids and hormonal contraceptives; corticosteroids; drugs acting on the pituitary. **Drugs Acting on Autonomic and Central Nervous System;** classification, drugs acting on the autonomic nervous system (cholinergic drugs, anticholinergics, sympathomimetics, adrenergic receptor antagonists - alpha (α - antagonists) and beta adrenergic receptor antagonists (beta blockers). drugs for pain relief (analgesics and antipyretics - non-opioid analgesics and opioid analgesics), non-steroidal anti-inflammatory drugs (NSAIDS), steroids as anti-inflammatory agents, drugs used in rheumatic diseases, drugs used for treatment of gout, drugs used for treatment of soft tissue inflammation. **Drugs used in the Treatment of Bone Mineral Disorders;** biphosphonates, vitamin D and related compounds, calcium preparations.

Teaching Strategies

Interactive Lectures, Small Group Assignments, and Small Group Discussions

Teaching/Learning resources

Computer, LCD Projector, White Board Markers, Permanent Markers, White Board, Charts, Chalk, Chalk Board.

Assessment strategies

Formative: Continuous Assessment Tests, Individual Assignments and Group Assignments

Summative: End of Semester Examination

References/Further Readings

- Bennett, P., & Brown, M. (2009). *Clinical Pharmacology*. London: Churchill Livingstone, ELSEVIER.
- Katzung, B. G., & Trevor, A. J. (2012). *Basic & Clinical Pharmacology*. London: LANGE.
- Mary, J. (2008). *Pharmacology*, LippincottWilliams and Wilkins
- Njau, E. (2014). *Pharmacology and Therapeutics*. Nairobi: Amref.
- Rang, H., Dale, M., Ritter, J., Flower, R., & Henderson, G. (2012). *Rang and Dale's Pharmacology*. London: Churchill Livingstone, ELSEVIER.
- Satoskar, R. (2007). *Pharmacology and Pharmacotherapeutics* (6th edition). Mumbai, India.
- Tripathi, K. (2013). *Essentials of Medical Pharmacology*. (4th edition). Jaypee Brothers Publishers. New Delhi, India.

MODULE 37: COMMUNITY HEALTH III

Code: CHE 223
Hours: 30
Credit: 3

Pre-requisite(s): community health I and II

Module Competence

This module is designed to enable the learner apply epidemiological approaches in the management, prevention and control of communicable and non-communicable diseases.

Module Outcomes

By the end of this module the learner should:

1. use epidemiological data and concepts in investigation and control measures of disease determinants in the community
2. Use the principles of epidemiology in prevention, control and management of communicable diseases in the community.
3. Apply the principles of epidemiology in prevention, control and management of non-communicable diseases in the community.

Module Units

Module Name	Hours	
	Theory	Practical
1. Principles of epidemiology	10	0
2. Communicable diseases	12	0
3. Non communicable diseases	8	0

Module Content

Principles of epidemiology; definition of terms, purpose of epidemiology, differences between epidemiological and clinical focus, sources of epidemiological information, mortality and morbidity statistics, epidemiological concept, epidemiological studies. **Communicable diseases** - Definition, standard case definition, classification, principles in management, prevention and control, notification and reporting of emerging and re-emerging infections, infestations, specific communicable diseases. **Non-communicable diseases (NCDs);** Definition, classification, causes, direct and risk factors, types of risk factors, modifiable risk factors, shared risk factors, metabolic risk factors, Social determinants of Health, Urbanization and its impact on NCDs, tobacco, alcohol, obesogenic environment, childhood obesity, the nutrition transition, Food marketing and advertisements, Physical inactivity, Mental Health and other NCDs, Finances,

The role of youth as a vulnerable group with an operational role, principles of management, prevention, control, notification, specific non-communicable diseases.

Teaching Strategies; Interactive Lectures, Small Group Tutorials and Group Assignments.

Teaching/Learning Resources: Laptop, Computer, Overhead Projector, LCD Projector, White Board Markers, Permanent Markers, White Board, Charts, 3D Pictures.

Assessment Strategies

Formative: Continuous Assessment Tests, Individual Assignments and Group Assignments

Summative: End of Semester Examinations

References/Further Readings

Hawker, J, *et al* (2005) Communicable disease control handbook, Massachusetts: Blackwell

Publishing Inc

Heymann, D (ed) (2004) Control of communicable diseases manual, Washington, DC:

American Public Health Association

Nordberg, E & Kingondou, T (2007) Communicable diseases (4th ed) Nairobi: AMREF

Connolly, M.A. ed (2005). *Communicable disease control in emergencies: A field manual.*

World Health Organization, Geneva, Switzerland

Goel, S.I. (2009). Education of Communicable and Non-Communicable Diseases

Cook, G and Zumla, A. ed (2003). Manson's Tropical Diseases (21st edition). W.B Saunders

London, UK.

MODULE 38: PEDIATRICS AND CHILD HEALTH II

Code: PCH 226
Hours: 60
Credit: 6

Prerequisite: Paediatrics and Child health I

Module competence

This module is designed to equip the learner with knowledge, skills and attitudes in the management of paediatric diseases and conditions.

Module learning outcome

By the end of this module, the learner should:

1. Manage cardiovascular disorders
2. Manage genitourinary disorders
3. Manage gastrointestinal and hepatobiliary diseases
4. Manage haematological and lymph reticular disorders

Module Units

Unit Name	Hours	
	Theory	Practical
1. Cardiovascular disorders	20	0
2. Genitourinary disorders	10	0
3. Gastrointestinal and Hepatobiliary system disorders	20	0
4. Haematological and lymph reticular disorders	10	0

Module content

Cardiovascular disorders: classification, Aetiological factors, presentation, management of congenital heart diseases, haemodynamics and presentation, management and prognosis of congenital heart diseases; aetiology, pathophysiology, presentation, differential diagnosis, complications, management, prognosis and prevention of rheumatic fever, rheumatic heart disease, infective endocarditis, myocarditis, pericarditis and congestive cardiac failure.

Genitourinary disorders; identify and manage congenital urethral valves, polycystic kidneys, agenesis, nephroblastoma, Neuroblastoma; aetiology, pathophysiology, presentation, differentials, investigations, complications, management of urinary tract infections, nephrotic syndrome, glomerulonephritis and renal failure. **Gastrointestinal and Hepatobiliary system disorders;** identification, management and referral of congenital conditions – cleft lip and palate, TOF, pyloric stenosis, hirschsprung's disease, meckel's diverticulum, acute

intussusceptions; diarrhoeal diseases: predisposing factors, prevention and complications; Diagnosis and management of hepatitis and cholecystitis. **Haematological and lymph reticular disorders**; classification, aetiology, presentation, diagnosis and management of anaemia, haemoglobinopathies and bleeding disorders. Lymphomas and leukemias: identification, types, predisposing factors, presentation, investigations and management. Blood; blood groups, transfusion and management of transfusion reactions.

Teaching Strategies

Interactive lectures, Small Group Discussions and Small Group Assignments, Case studies

Teaching/Learning Resources

Laptop, Computers, LCD Projector, White board and markers, Permanent Markers.

Assessment strategies

Formative : Continuous Assessment Tests, Individual assignments and Group Assignments

Summative : End of semester examination).

References/Further Readings

- Adetokunbo , L. and Herbert, G., (2003). *Short Textbook of Public Health Medicine for the Tropics*, (4thEd.). Boca Raton: CRC Press
- Coovadia, H.M. and Wittenberg, D.F. (2011). *Textbook of Paediatrics*, (6th Edition). Oxford: Oxford University Press
- Hay, W. (2014). *Current Diagnosis and Treatment in Paediatrics*, 18th ED. Edinburg: McGraw Hill
- Lissauer, T., Clayden, G., and Craft, A. (2012). *Illustrated Textbook of Paediatrics* .Edinburgh, Mosby.
- Nelson E. W. (2009). *Textbook of Paediatrics*. (17th Edition). Harcourt Asia: PTE. Ltd. Thomson press (1) Ltd.
- Shubhangini A.J. (2002). *Nutrition and Dietics*. (2nd Edition). Tata McGraw-Hill, USA
- Wood, C., Wood, C.H., DeGlanville, H. and Vaughan, J. P. (2008) *Community Health* ,(3rd Ed.). AMREF, Nairobi , Kenya

MODULE 40: REPRODUCTIVE HEALTH II

Code: REH 226
Hours: 60
Credit: 6

Pre-requisite(s); RH I

Module Competence

This module is designed to enable the learner provide reproductive health services

Module Outcomes

By the end of this module, the learner should;

1. Explain normal labor; diagnose and manage the different stages of labour and childbirth and medical and obstetric conditions
2. Diagnose and manage abnormal labour
3. Explain and manage normal and abnormal puerperium
4. Diagnose and manage medical and obstetric conditions in pregnancy
5. Diagnose and manage sexually transmitted infections (STIs) and pelvic inflammatory disease (PID)

Module Units

Module Name	Hours	
	Theory	Practicals
1) Normal and abnormal labor and childbirth	10	10
2) Normal and Abnormal Puerperium	8	0
3) Obstetric Disorders	14	0
4) Medical Conditions in Pregnancy	12	0
5) STI and Pelvic Inflammatory Disease	6	0

Module Content

Normal and Abnormal Labor and Childbirth: definition, stages, management of first stage and use of partograph; management of second stage of labor and mechanisms of labour, management of third stage (AMTSL); respectful maternity care; abnormal labor: prolonged labor; precipitate labor, obstructed labor/CPD; malpositions/malpresentations; breech presentation; multiple pregnancy; assisted vaginal delivery; cesarean Section; **Normal and abnormal puerperium:** normal puerperium, targeted postnatal care; puerperal pyrexia and sepsis; postpartum blues/depression/psychosis; postpartum breast diseases. **Obstetric disorders:** obstetric hemorrhage: APH and PPH; PROM, Oligo- and poly-hydramnios, IUGR and IUFD preterm and post-term labor, cord prolapse/presentation, fetal distress, rhesus incompatibility **Medical disorders** in pregnancy: hypertension in pregnancy (PET and Eclampsia); anaemia and

sickle-cell disease in pregnancy; DVT in pregnancy; malaria and sepsis in pregnancy; DM in pregnancy; asymptomatic bacteriuria and UTI in pregnancy, and EMTCT of HIV. **STIs and pelvic inflammatory disease:** urethral/Cervical/Vaginal discharge conditions; GUD; bartholin's abscess and bartholin's cyst; genital warts, PID.

Teaching Strategies

Interactive lectures, small group tutorials, demonstrations and return demonstrations, video interactions, student directed learning

Teaching/Learning Resources

Projectors, flipcharts, whiteboard, simulated patients, resource center, videos, skills lab.

Assessment Strategies

Formative; end of semester examination, oral assessment, OSCE, CAT, clinical assessments

Summative: Final qualifying examinations; OSCE

Reference/Further Readings

- Bickerstaff, H. and Kenny, L.C. eds (2017). Gynecology by Ten Teachers (20th Edition, London, UK; CRC press
- Collins, S., Arulkumaran, S., Hayes, K., Jackson, S. and Impey, L. (2013) Oxford Handbook of Obstetrics and Gynecology (3rd Edition); London, UK. Oxford University Press.
- Cunningham, G.F., Leveno, L.K., Bloom, S.L., Hauth, C.J., Rouse, J. and Spong, C.Y. (2018) Williams Obstetrics (25th Edition). Mc Graw Hill companies Ltd. New York, USA.
- DeCherney A. Nathan L., Laufer N., Roman A. (2019) Current Diagnosis & Treatment: Obstetrics & Gynecology, 12th Edition, San Francisco, USA: McGraw Hill/Lange
- Kenny, L.C. and Myers, J.E. eds (2017). Obstetrics by Ten Teachers (20th Edition, London, UK; CRC press
- Konar, H. (2016) DC Dutta's Textbook of Gynecology, 7th Edition, Calcutta, India: Jaypee Brothers Medical Publishers (P) Ltd.
- Konar, H. (2017) DC Dutta's Textbook of Obstetrics, 9th Edition, Calcutta, India: Jaypee Brothers Medical Publishers (P) Ltd.
- Lobo R., Gershenson D., Lentz G., Valea F. (eds.), (2016) Comprehensive Gynecology, 7th Edition, Philadelphia USA: Elsevier
- MOH (Kenya) Guidelines on Reproductive Health - Updated
- Oats, J. and Abraham, S. (2016). Fundamentals of Obstetrics and Gynecology (10th Edition), Churchill Livingstone, Elsevier Ltd. Philadelphia, USA.
- Symonds, E.M. and Symonds, I.M. (2013). Essential Obstetrics and Gynecology (5th Edition), Churchill Livingstone. Elsevier Ltd. Philadelphia, USA.

MODULE 41: MEDICINE II

Code:	MED226
Hours:	60
Credit:	6

Pre-requisite: Medicine I

Module Competence

This module is designed to equip the learner with knowledge, skills and attitudes to manage medical conditions.

Module Outcomes

By the end of this module the learner should:

1. Diagnose and manage Gastro-intestinal tract, Hepatobiliary System and Peritoneal Diseases
2. Diagnose and manage Haematological, Lymphoreticular Disorders and Administer Blood Transfusion.
3. Diagnose and manage Urinary System Disorders
4. Diagnose and manage Endocrine Disorders

Module Units

	Hours	
	Theory	Practicals
1. Gastro-intestinal tract, hepatobiliary system and Peritoneal diseases	20	0
2. Haematological, Lymphoreticular Disorders and Blood Transfusion	16	0
3. Urinary system	10	0
4. Endocrine disorders	14	0

Module Content

Gastro-intestinal tract; overview of anatomy and physiology of gastrointestinal tract system, history taking, physical examination, features of gastrointestinal tract diseases, investigations and treatment of GIT diseases. **Hepatobiliary System and Peritoneal Disorders;** overview of anatomy and physiology of hepatobiliary system and peritoneum, history taking, physical examination, features of hepatobiliary system and peritoneum, investigations in hepatobiliary system and peritoneum, hepatitis, liver failure, liver cirrhosis, hepatic encephalopathy, portal hypertension / Varices, hepatoma, cholecystitis, pancreatitis, cancer of pancreas. **Peritoneal Disorders;** peritonitis, ascites. **Hematological disorders;** overview of anatomy and physiology of haematological disorders, history taking, physical examination, features of haematological disorders, investigations, anaemias, (membranopathies, spherocytosis, elliptocytosis, haemoglobinopathies, (thalassaemias and sickle cell syndromes,) enzymopathies, (Glucose 6 Phosphate Dehydrogenase (G6PD) deficiency, pyruvate kinase deficiency), acquired haemolytic disorders, polycythaemia. **Lymphoreticular Disorders and Blood Transfusion;** myeloma,

lymphoma, (burkitts lymphoma, Hodgkin's and non-Hodgkin's lymphomas), acute chronic, myelocytic and lymphocytic leukaemia, blood and blood products, blood grouping and cross matching, indications, complications and their management. **Urinary System Conditions;** overview of anatomy and physiology of renal system, history and physical examination in renal diseases, features of renal diseases, investigations in renal diseases, congenital renal conditions/malformations, urinary tract infections (cystitis, pyelonephritis), glomerulonephritis, nephrotic syndrome, acute renal failure, chronic renal failure, renal osteodystrophy, dialysis; renal calculi, renal cell carcinoma, HIV nephropathy, **Endocrine Disorders;** overview of the anatomy and physiology of endocrine glands, history taking and physical examination, anterior pituitary gland and hypothalamic disorders, hypopituitarism, empty sella, pituitary masses, hyperprolactinemia, growth hormone,(growth hormone deficiency, acromegaly), disorders of posterior pituitary gland, thyroid disorders, parathyroid gland disorders, adrenal gland disorders, diabetes mellitus and its complications.

Teaching Strategies

Interactive Lectures, Small Group Tutorials and Small Group Assignments.

Teaching/Learning Resources

Computer, Overhead projector, LCD projector, White board markers, Permanent markers, White board, Charts.

Assessment Strategies

Formative; Continuous Assessment Tests, Individual Assignments and Group Assignments
Summative; End of semester examinations

References/Further readings

- Benjamin J, Robert.C, and Wing J (2019) Cecils essentials of Medicine (9th edition) Elsevier Publishers ISBN13978-1437718997
- Colledge (editor 2010), *Davidsons principles and practice of medicine* 21st edition, London.
- Douglas. (2005), *Macleod's clinical examination*. 11th edition Elsevier Churchill Livingstone Vol.1 and 2 Elsevier Churchill Livingstone publishers ISBN13 978-0071802154
- Kasper D, Fauci A, Hauser S and Longo D, (2018) *Harrisons principles of internal Medicine* (19th) 17th edition, New York. McGraw Hill publishers ISBN:9780443074059 publishers.
- Kumar and Clark. (2005), *clinical medicine*. 6th edition. London. Elsevier Saunders publishers
- Michael G. Drake, W. (2012) *Oxford Textbook of Medicine*, (23rd Edition), London, UK.

MODULE 42: CLINICAL PATHOLOGY II

Code: CLP223
Hours: 30
Credit: 3

Pre-requisite(s): Basic sciences

Module Competence

This module is designed to enable the learner relate clinical features of diseases to their pathological processes.

Module Outcomes

By the end of this module the learner should:

1. Describe the causes and pathogenesis of the disorders of the GIT.
2. Explain the causes and pathogenesis of the disorders of the hepatobiliary systems
3. Explain the causes and pathogenesis of the disorders of genitourinary systems.
4. Describe the causes and pathogenesis of the disorders of the nervous system

Module Units	Hours	
	Theory	Practicals
1) Disorders of GIT	12	0
2) Disorders of the hepatobiliary system	08	0
3) Disorders of the genitourinary system	06	0
4) Disorders of the nervous system	04	0

Module Content

Gastrointestinal tract: Introduction to GIT pathology, congenital disorders of upper and lower GIT (hair lip, cleft palate). Inflammatory conditions of upper GIT glossitis, parotitis, oesophagitis, gastritis. Neoplastic conditions; tumours of the tongue, parotid and oesophagus, stomach and duodenum. Conditions of lower GIT; (dysenteries, ulcerative colitis, enteritis, Congenital abnormalities; hirsprungs disease, megacolon). Neoplastic condtions of lower GIT (cancer of colon and small intestines). **Hepatobiliary system:** Congenital conditions; biliary atresia. Inflammatory conditions(viral hepatitis, cirrhosis of the liver, cholecystitis, pancreatitis) Metabolic conditions (diabetes mellitus). Neoplastic conditions (tumours of the liver, biliary tract and pancreas) .**Genitourinary pathology:** Congenital conditions(renal agenesis, polycysti

kidney). Renal inflammatory disorders (all forms of glomerulonephritis, nephrotic syndrome, renal failure, renal necrosis, pyelonephritis, cystitis, urethritis). Neoplastic disorders (hepatoma, cancer of biliary ducts and pancreatic cysts and cancers). **The nervous system:** Congenital conditions (bifidas, anencephaly, hydrocephalous). Inflammatory conditions(bacterial, viral and fungal meningitis, rabies, syphilis, peripheral neuritis, myelitis). Neoplastic conditions (gliomas, ependimonas).

Teaching Strategies

Lectures, tutorials and group assignments.

Teaching/Learning Resources

Laptop computer, overhead projector, LCD projector, white board markers, permanent markers, white board, Charts, 3D Pictures.

Assessment Strategies

Formative: Continuous assessment tests, individual assignments and group assignments

Summative: End of semester examinations

References/Further readings

Kishasha M (2016). *Textbook of human pathology*. (1st edition), Acrodile publishers, Nairobi, Kenya.

Harsh M (2014). *Textbook of Pathology*. (1st edition). New Delhi: Jaypee Brothers, Medical Pub, India

Nigton C, & Muir (2014). *Textbook of Pathology*. (15th edition), New Delhi. Jaypee Brothers, India

MODULE 43: CLINICAL PLACEMENT IV**Code:** CPL 229**Hours:** 180**Credit:** 5**Prerequisite(s);** Psychiatry, Basic Sciences and Clinical placement I and Clinical Placement I**Module Competence**

This module is designed to enable the learner acquire competencies to diagnose and manage patients with various diseases.

Module Outcomes

By the end of this module the learner should;

1. Take a relevant history and perform a complete Physical examination
2. Participate in ordering of and interpreting relevant investigations
3. Participate in some diagnostic procedures like venepuncture, fixing of IV lines
4. Monitoring of patients taking of vital signs, performing puloximetry, etc

To check the logbook and clinical guideline book

MODULE 39: SURGERY II

Code:	SUR 226
Hours:	60
Credit:	6

Pre-requisites: Human Anatomy, Clinical Methods, Pharmacology, Medical Physiology General Pathology and Surgery I.

Module Competence

This module is designed to enable the learner diagnose and manage patients with gastrointestinal and abdominal surgical conditions, orthopaedic disorders, injuries of upper and lower limbs, and be able to perform minor surgical procedures.

Module Outcomes

By the end of this module, the learner should;

1. Carry out diagnosis and management of gastrointestinal tract and abdominal conditions
2. Manage orthopaedic conditions
3. Manage injuries of upper and lower limbs
4. Perform minor surgical procedures
5. Perform voluntary Male circumcision

Module Units

Unit Name	Hours	
	Theory	Practicals
1. Gastrointestinal Tract and Abdominal Conditions	20	0
2. Orthopaedics	14	0
3. Injuries of Upper and Lower Limbs	10	0
4. Minor Surgical Procedures	02	6
5. Voluntary Male Medical Circumcision	4	6

Module Content

Gastrointestinal Tract and Abdominal Conditions; disorders of the oesophagus, disorders of stomach and duodenum, disorders of lower GIT, ano-rectal conditions, hernias, hepatobiliary disorders, abdominal trauma. **Orthopaedics;** deformities, inflammatory lesions of soft tissue, tumours of soft tissue, tumours of bone, infections of bone, arthritis. **Injuries of Upper and Lower Limbs;** fractures of upper limb, dislocations of upper limb, pelvic and hip joint injuries, fractures of femur, injuries of the knee, fractures of tibia and fibula, injuries of the ankle and foot. **Minor Surgical Procedures;** surgical instruments, suture materials, catheterization, incision and drainage, wound closure, removal of ganglion, surgical toilet, escharotomy and

fasciotomy, underwater seal drainage. **Concepts and Principles of medical Male circumcision ;** comprehensive male adolescents and adults health services, appropriate commodities used in male medical circumcision,, documentation in medical male circumcision, principles of infection prevention and control in male medical circumcision, education and counselling of clients, medical male circumcision methods and procedures for infants. Adolescents and adults, post procedure care for medical male circumcision

Teaching Strategies

Interactive Lectures, Small Group Assignments, and Small Group Discussions

Teaching/Learning Resources

Computer, LCD Projector, White Board Markers, Permanent Markers, White Board, Charts, Chalk, Chalk Board.

Assessment Strategies

Formative: Continuous Assessment Tests, Individual Assignments and Group Assignments

Summative: End of Semester Examination

References/Further Readings

- Aaron, A. R., Tobian, M. D., Serwadda, D., Quinn, T. C., Kigozi, G., Gravitt, P. E., et al. Atingà, J. E., Mutiso, V. M., & Otsyeno, F. M. (2014). *AORF Text Book of Orthopaedics*. Nairobi: Acrodile Publishing.
- Auvert, B., Taljaard, D., Lagarde, E., Sobngwi-Tambekou, J., Sitta, R., & Puren, A. (2005). Bailey, R., Moses, S., Parker, C., Agot, K., Maclean, I., Krieger, J., et al. (2007). Male Burkitt, H. G., Quick, C. R., & Reed, J. B. (2014). *Essential Surgery - Problems, Diagnosis and Management*. London: Churchill Livingstone, ELSEVIER.
- Centre for Disease Control and Prevention (CDC).. MMWR Morb Mortal Wkly Rep. 2013 Circumcision (EIMC) under Local Anaesthesia, September 2014, Nairobi
Circumcision for HIV prevention in young men in Kisumu, Kenya: a randomised Circumcision under local Anaesthesia for Adolescents, boys and Adults, April 2019, Nairobi
Controlled trial. *Lancet*, 369, 643 - 656.
- Dandy, D. J., & Edwards, D. J. (2009). *Essential Orthopaedics and Trauma*. London: Churchill Livingstone, ELSEVIER.
- Ebnezar, J. R. (2016). *Textbook of Orthopedics*. New Delhi: Ansari.
- Garden, O. J., & Parks, R. W. (2018). *Principles and Practice of Surgery*. London: ELSEVIER.

Government of Kenya, Ministry of Health. NASCOP., (July,2015). National Voluntary
 Gray, R. H., Kigozi, G., Serwadda, D., Makumbi, F., Watya, S., Nalugoda, F., et al. (2007).
 guidance on Tetanus prevention in voluntary medical male circumcision settings in
 Kenya, Nairobi

Guide of Kenya Medical Male circumcision Programme, April 2019, Nairobi
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