

**United Republic of Tanzania
Ministry of Health**

Department of Human Resource Development

**Curriculum
for
Assistant Medical Officer**

October, 2000

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LIST OF ABBREVIATIONS

AMO	-	Assistant Medical Officer
CO	-	Clinical Officer
MOH	-	Ministry of Health
AMOTC-		Assistant Medical Officer Training Center
RMO	-	Regional Medical Officer
HIV	-	Human Immunodeficiency Virus
IMCI	-	Integrated Management of Childhood Illnesses
NLED	-	National List of Essential Drugs
STI	-	Sexually Transmitted Infections
RCH	-	Reproductive and Child Health
BPH	-	Benign Prostate Hypertrophy
ENT	-	Ear Nose and Throat
FB	-	Foreign Body
PEM	-	Protein Energy Malnutrition
PHC	-	Primary Health Care
TSS	-	Tropical Splenomegaly Syndrome
KCMC-		Kilimanjaro Christian Medical Center
APH	-	Antepartum Hemorrhage
VVF	-	Vesico-Viginal Fistula
RVF	-	Recto-Vaginal Fistula
PROM-		Premature Rupture of Membranes
IUFGR		IntraUterine Fetal Restriction
MVA	-	Manual Vacuum Aspiration
PAC	-	Post Abortal Care
T.L	-	Tubal Ligation
IUCDS		Intra Uterine Contraceptive Devices
EOC	-	Essential Obstetrics Care
EPH	-	Edema, Protenuria and Hypertension

RECOMMENDATIONS

To facilitate the implementation of this curriculum, it is recommended that:

1. The annual intake should be 40 students (30 nationals, 10 private/non-nationals) for each school.
2. Realistic budget for the school should be adhered to.
3. Cost sharing guidelines should be revised
4. Principals/Teachers should be proactive in securing funds from other independent sources.
5. Regular course evaluation by current and previous students.
6. The Ministry of Health in collaboration with AMOTCs will arrange for refresher courses for previous AMO students.
7. Arrange for teaching methodology course for Tutors.
8. Strict entry qualification should be adhered to by the MOH Selection Committee.
9. Curriculum should be reviewed after every 3 years.
10. Academic staff in teaching hospitals/training institutions should be officially recognized and motivated.
11. All regional hospitals designated as teaching hospitals, should directly be under the MOH
12. There should be regular supervision visits to the training Institutions by MOH Officials.

1. PHILOSOPHY OF THE COURSE

We believe that:

1. Implementation of the Primary Health Care strategy requires health workers who are adequately trained hence the AMO.
2. Clinical Officers like any other Health Professional need advancement in their carrier hence AMO Training.
3. Promotion of health care in the community require different health personnel hence AMO being one of the cadres.
4. Health sector reforms require the participation of various cadres hence the AMO.
5. Medicine is a multidisciplinary field, thus the need for AMO to provide services is required.

2. RATIONALE OF THE COURSE

Introduction:

AMOs are frequently used interchangeably with graduate medical officers. Because of long training and inadequate output of general Medical Officers, there is a need to have an intermediate, better trained cadre between Clinical Officer (CO) and graduate Medical Officers that is the AMOs.

Justification for training Assistant Medical Officers

This is based on the following facts:

1. The Doctor population ratio is still high (1: 25,000) hence the need to train AMO to bridge the gap.
2. There is Urbanization of graduate doctors despite the fact that 80 - 90% of the population live in the rural areas. This calls for training of AMO to provide Health services to the rural population.
3. Increasing need of Primary Health Care service and Health Sector Reforms requires highly trained Allied health personnel.

3. JOB DESCRIPTION

Job Title: Assistant Medical Officer

Job Summary:

The Assistant Medical Officer is a health personnel who has undergone a two year training course. Based on the fact that this health personnel has worked as a Clinical Officer for at least three years, he/she should have adequate professional skills and competence in the provision of health care services. The AMO should therefore be able to promote and provide curative, training and preventive services to the community .

Specific Duties:

The AMO should be able to perform the following specific duties:

- A. In the District, should be able to:
- Supervise the implementation of Primary Health Care programs.
 - Participate effectively in the district health team.
 - Attend District planning committees.
 - Attend any other meetings which promote health care.
 - Supervise peripheral health workers.
 - Arrange and conduct refresher course for other health workers in order to improve their skills.
 - Oversee the ordering of drugs, equipment and other supplies required by health units.
- B. Within the district hospitals, they may take full responsibility for:
- All aspects of patients care, including emergency surgery and obstetrics
 - Organizing and supervising the running of out - patient department
 - Perform ward rounds
 - Management of financial affairs in the absence of the D.M.O.
- C. Within Clinical Officers Training Institutions they may undertake duties of teaching and supervising students
- D: They may be assigned to perform other duties as required by the respective authority

- E: The AMO is expected to carry out health system research activities in the District on relevant subjects so as to effect intervention measures against basic problems.

4. PRINCIPLES OF THE COURSE

1. Previous training & experience

AMO course takes into account the fact that a foundation has already been laid in the previous training as Clinical Officer in the Basic Sciences and clinical skills. It further takes into account the fact that the student has had a working experience of a minimum of three years in the peripheral health units or District Hospital.

2. Main emphasis

In AMO training, emphasis will be on improving the quality of knowledge and skills acquired in the previous training. Selection of items for inclusion in the curriculum will reflect concern about relevant problem areas in the Primary Health Care Services delivery at the District and peripheral health units.

3. Leadership role

The AMO will be trained in planning, management, organization and supervision of Health services at the District and Peripheral Health Units.

4. Continuing education

The AMO should be able to continuously update his knowledge and skills by integrating with his colleagues, reading Medical Journals, attending refresher courses and seminars and teaching subordinate staff.

5. DESIRABLE LEARNING OUTCOMES FOR THE ASSISTANT MEDICAL OFFICERS

What the AMO should be able to do:

1. **Clinical skills:** Perform history taking, physical examination, interpretation of findings and formulation of diagnosis.
2. **Practical procedures:** Perform procedures related to cardiology, respiratory, gastrointestinal tract etc.
3. **Patient investigation:** Perform laboratory investigation such as: Clinical, biochemical, haematological. Perform radiological investigation such as X-ray, ultrasound etc.
4. **Patient management:** Managing patients by using the following interventions: Drugs, surgery, psychological, physiotherapy etc.
5. **Health promotion and disease prevention:** Implementing disease preventive measures and collaborating with other professionals/ other sectors in promoting health.
6. **Communication:** Communicate verbally/ in writing with patients, relatives and colleagues qualifications.
7. **Appropriate information handling:** Handling patients records, use of computers, HMIS etc.

How will the AMOs approach their task?

8. **Understanding of basic and clinical science and underlying principles:** Medicine, Surgery, Obstetrics and Gynaecology, Child Health, Community Health, Pharmacology etc.
9. **Having appropriate attitude, ethics, and legal responsibilities:** Attitude, ethics, human right issues etc.
10. **Appropriate decision making and clinical reasoning skills:** Research methods and statistical understanding.

6. REGULATION FOR ASSISTANT MEDICAL OFFICER'S COURSE

1. Commencement of the course

The course will commence on the 1st week of October of each year.

2. Duration of the course

The course is a full time one and will last for TWO academic years.

3. Location of Training Institution

The course will be conducted in a Consultant Hospital or equivalent venue with adequate facilities and resources for classes and clinical teaching. In addition, the hospital must have an active Community Health Department which facilitates training , supervision of peripheral health units, mobile and Primary Health Care Programs.

4. Role of the Principal in Assistant Medical Officer training center

The Senior/Principal Medical Officer who shall be designated Principal of AMO Training

Center, shall be in charge of the training course and shall be appointed by the Ministry of health. He/She shall be directly responsible to the Medical Superintendent/Director for all matters pertaining to the administration of the school He/She shall report to the Senior Medical Officer (Training) through the Medical Superintendent/Director. He/She shall be in full consultation with all members of the hospital staff involved in teaching concerning all matters relating to education and training.

5. Requirements of the Assistant Medical Officer training center

The AMOTC should have tutors trained in a recognized University or equivalent.

The training center/hospital shall supply board lodging to the trainees.

The training center must possess a reasonable medical library which also contains medical journals. There should be tutor sets slide projectors, overhead projector and film projector, together with a stock of slides and tapes (audio-video).

6. Entrance qualifications

An applicant must be a Form IV/VI Certificate holder with a Diploma in Clinical Medicine from the Tanganyika Medical Training Board or equivalent.

- a) He/She must be sponsored.
- b) He/She must pass a pre-selection exam set by the Ministry of health except for foreign students
- c) He/She must have a minimum of 3 years of working experience in a Health facility
- d) He/She must have an original certificate for clinical officer training and good recommendation from the employer.
- e) The age limit should not exceed 45 years
- f) Candidates who have been discontinued from AMO course can only be reconsidered after 3 years. Upon recognition of the violation of this regulation, the academic committee of the respective school has the right to terminate the student.

7. Administrative groups

The following outlines the areas of various groups required to supervise the training.

1. Academic Committee.

The members of the committee shall consist of Director/Medical Superintendent/RMO as chairperson. Academic Officer of the school will be the secretary. Other members will be the academic staff.

2. Disciplinary Committee.

The members of the committee shall consist of Director/Medical Superintendent/RMO as chairperson. Principal of the school will be the secretary. Other members will be heads of Department, Warden, representative of students government.

3. Examination Committee

A Committee of external examiners will be appointed by the Ministry of Health. Marking of the final examinations will be done by External examiners and may be

assisted by Internal examiner. Chairperson will be Chief External examiner and the secretary will be the Principal.

4. The Ministry of Health through Department of Human Resources

Development is responsible for:

- Guarantee of fair conduct in student assessment
- Issue of qualifying certificates after receiving the examiners report
- Ensuring the revision of the curriculum every three years.

7.COURSE CONTENT

1. The course will consist of 4 rotations of 14 weeks each. The Community medicine block will have 13 weeks. Introduction to clinical medicine will be taken as a block of 8 weeks by the whole class at beginning of the course.

(a)	Introduction to Clinical Medicine	- 8 weeks
(b)	Internal Medical	- 14 weeks
(c)	Surgery	- 14 weeks
(d)	Obstetrics/Gynecology	- 14 weeks
(e)	Pediatrics and Child Health	- 14 weeks
(f)	Community Medicine	- 13 weeks

2. The community medicine block is conveniently taken by the whole class at one time, after completion of the first year.
3. Lectures, tutorials and ward-teaching will go along with practical duties, according to the time-allocations detailed in the syllabus.
4. The Principal will make special efforts to facilitate student training by showing medical films, organizing clinical rotations, inviting outside tutors and arranging field trips to medical research stations and/or control schemes.

8. RECORDS

1. The training center must keep a file for each student including all administrative details.
2. Records of internal assessments must be available at any time for inspection by other staff or visiting Ministry of Health officials.
3. An annual report of the training center shall be submitted to the Ministry of Health with copies to other AMO training centers and the Ministry of Health will give feedback.
4. Passport photographs of each student with his academic record should be filed for reference. One photograph will be for the student identity card.

9. DISCONTINUATION OF TRAINING

Candidates may be discontinued from training on the following grounds:

1. Ill health considered by a medical board to be detrimental to working ability.
2. If the sponsor withdraws the sponsorship.
3. Serious contravention to the Disciplinary Code.
4. Academic failure proven through assessment/examination reports

The final ruling on discontinuation of a candidate will come from Ministry of Health, Department of Human Resource Development.

10. RULES OF CONDUCT

- The AMO course will be conducted in English
- Trainees are expected to conform to the hours of work and duty assignments and including tutorials which are required by the particular Department in which they are rotating. These hours may cover day time, night time, week ends and public holidays
- Trainees must adhere to the normal ethical and professional conducts/standards of the hospital in which they are training.
- Training must adhere to the Disciplinary Code developed by the Ministry of Health.

11. BOARDING HOUSE CONDUCT

As a community, AMO students should be encouraged to adhere to the laid down hostel regulations to prevent disturbance and inconveniences to each other. Foreign students may have the liberty to find their own accommodation upon approval by the management of the institution.

12. HEALTH

Trainees must have a thorough medical check-up before admission to exclude gross handicaps which could jeopardize their training and execution of their duties. Upon recognition of a gross handicap of the selected candidate, the management of the institution has the right to send back the student to the MOH, employer.

13. COURSE ORGANIZATION FOR AMO'S TRAINING

BLOCK I 1st ACADEMIC YEAR

1 Week	Orientation Week
8 Weeks	Introduction to clinical medicine

Rotation Weeks

8 weeks	Internal Medicine
8 weeks	Surgery
8 weeks	Pediatrics and Child Health
8 weeks	Obstetrics/Gynecology
1 week	Short leave
3 weeks	Revision/Exams
4 weeks	Long leave

Total weeks 49

BLOCK 11 2nd ACADEMIC YEAR

Rotation Weeks

12 weeks	Community Medicine
1 week	Unit Exam (community Medicine)
6 weeks	Surgery
6 weeks	Internal Medicine
6 weeks	Pediatrics and Child Health
6 weeks	Obstetrics /Gynecology
3 week	Revision
2 week	Final Examination

Total 42 weeks

2nd ACADEMIC YEAR**SUBJECTS TUTORIAL/LECTURES PRACTICAL**

SUBJECT	LECTURE	PRACTICAL
1. COMMUNITY MEDICINE		
12 weeks	180 Hours	210 Hours
2. OBSTETRICS/GYNAECOLOGY		
6 weeks	36 Hours	144 Hours
3. SURGERY		
6 weeks	36 Hours	144 Hours
4. PAEDIATRICS AND CHILD HEALTH		
6 weeks	36 Hours	144 Hours
5. INTERNAL MEDICINE		
6 weeks	36 Hours	144 Hours
TOTAL	324 Hours	786 Hours

2nd YEAR GRAND TOTAL: 324 + 786 = 1110 HOURS.

LECTURES 2 HOURS/WEEK

TUTORIALS 5 EVERY WEEK.

15. STUDENTS' ASSESSMENT

INTRODUCTION

Students assessment is an essential component of any curriculum. Assessment is a means of getting information for decision-making. The purpose of assessment is to monitor achievement in learning/teaching objectives and certification. It is centered on three levels of domains: knowledge, practice and behavior. An appropriate assessment should be valid, reliable and practicable. Basically the assessment process involves continuous assessment and final qualifying examination

CONDUCT OF EXAMINATIONS

Continuous Assessment

1st Academic Year:

1. There will be one recorded continuous assessment examination per rotation for each subject taught.
2. Each examination shall comprise a written and clinical/practical part.
3. The Pass mark shall be 50% in the written paper, and 50% in the clinical/practical examination. Failure in the written paper can be compensated for by the clinical examination provided the score in the written paper is not below 45%. Failure in the clinical part shall not be compensated by the written paper.
4. The candidate who fails at the end of rotation examination of a subject shall be given a supplementary examination after 4 weeks. The maximum score for a supplementary examination will not exceed 50%.
5. The candidate who fails a supplementary examination in any subject shall be discontinued

2nd Academic Year

1. 1, 2, 3, 4, and 5, as in 1st year applies.
2. A candidate must pass all the subjects (theory and practical) before being allowed to sit for final year examination.

END OF THE 1ST ACADEMIC YEAR EXAMINATION

A candidate must pass all clinical rotation examinations before being allowed to sit for end of academic year one examination.

1. A candidate failing up to 2 clinical subjects will repeat the clinical subjects after 4 weeks (both theory and practicals).
2. A candidate failing one or two supplementary clinical subjects will repeat a year (theory and practicals). That means he/she will join the first year students.
3. A candidate who fails three or more clinical subjects shall be **DISCONTINUED** or may on special recommendation of the academic committee be allowed to repeat the year.
4. A candidate is not allowed to repeat a year twice.

FINAL QUALIFYING EXAMINATION

A Candidate must pass all clinical rotations to be allowed to sit for the final qualifying examinations.

1. The examination will take two weeks.
2. The examination papers will be set centrally by a panel of experts appointed by the Ministry of Health. The clinical examinations will be arranged by the External Examiners in collaboration with Internal Examiners.
3. The final examination questions will include only topics explicitly stated in the syllabus
4. At least two examiners (external and internal) must agree on the answer to each question.
5. Internal Examiners may also be requested to help marking the papers according to the set answers.

6. Pass mark shall be 50% in the written paper, and 50% in the clinical/practical examination. Failure in the written paper can be compensated for by the clinical examination provided the score in written paper is not below 45%. Failure in the clinical part shall not be compensated by written paper.
7. A Candidates failing one or two subject will be required to re-sit after 6 months and those who fail 3 or more subject shall repeat a year.
8. A Candidate who fails the supplementary examination (No 7 above):
 - a) Those who supplemented in 1 or 2 subject will be re-sit all subject after 6 months. If he/she fails again in any subject shall be **discontinued**.
 - b) Those who repeat a year and fails in any subject shall be **discontinued**.
9. A candidate who passes the final Qualifying examination shall be awarded **Advanced Diploma in Clinical Medicine**. The award of the Advanced Diploma is a prerequisite for registration by the Tanganyika Medical Council.

WRITTEN EXAMINATION

The written examination will consist mainly of 2 parts questions: Objective types and essay questions. These will be composed of the following questions:

1. Multiple choice, matching and true-false questions and they will carry 50%. True and false questions will carry penalty for a wrong answer.
2. Clinical, problem solving essay questions will carry 50%

PRACTICAL/CLINICAL ORAL EXAMINATIONS

An evaluation of clinical skills by several clinical tutors, over a 24 months period, on the basis of repeated real life experience in many varying clinical situations must have a greater statistical chance of grading a candidate than one clinical examinations by no more than one or two examiners. Clinical examinations will consist of one long case examined for 40 minutes followed by an oral examination of 20 minutes.

COMMUNITY MEDICINE ORAL

There shall be an oral examination lasting for not more than 15 minutes for each candidate.

Each candidate will be examined on five (5) questions.

EXAMINABLE SUBJECTS

1st Academic Year

- Introduction Medicine
- Obstetrics and Gynecology
- Pediatrics and Child Health
- Surgery
- Internal Medicine

2nd Academic Year

- Obstetrics and Gynecology
- Pediatrics and Child Health
- Surgery
- Internal Medicine
- Community Medicine

GRADING

The grading of marks in each year including the final year is as follows:

MARKS	GRADE	DESCRIPTION
75 and above	A	Excellent
70 - 74	B+	Very good
60 - 69	B	Good
50 - 59	C	Satisfactory
45 - 49	D	Fail
44 and below	E	Poor

16. TEACHING AND LEARNING METHODS

The course will be centered on adult learning/teaching methods. The following will be the main teaching/learning methods:

1. Group discussions
2. Lecture
3. Lecture discussions
4. Demonstrations
5. Tutorials
6. Case presentations
7. Field visits and work
8. Individual assignments
9. Night duty and ward calls to practice skills.
10. Role plays

17. RESOURCES FOR AMO COURSE

a. STAFFING

- Principal/Vice Principal
- Tutors
 - Specialists
 - Registrars
- Warden
- Secretary
- Storekeeper
- Typist
- Messenger
- Driver
- Watchman
- Cook
- Laborer
- Library Assistants
- Account Assistants

b. TEACHING AIDS

- Medical Library
- Books
- Journals
- Slide projector
- OHP
- Film Projector
- Slides and tapes
- Computers and printers
- Teaching models e.g. skeletons
- Photocopy
- Video/TV
- Typewriters
- Fieldwork equipment
- Calculators
- Duplicating machine

c. TRANSPORT

- An active and reliable transport

PART I

A. INTRODUCTION TO CLINICAL MEDICINE

The Introduction to clinical medicine course is aimed at laying a foundation to the clinical subjects which have to be learnt by the Assistant Medical Officer. The course will be taught as a block of 8 weeks at the beginning of the year.

AIM

To enable AMO student to acquire essential theoretical knowledge in various disciplines which will facilitate his/her understanding of clinical practice.

GENERAL OBJECTIVE

The Assistant Medical Officer student will develop an understanding of how the human body functions and how it can be affected.

ASSESSMENT

At the end of this block there will be assessment examination of each discipline.

COURSE CONTENT

1. INTERNAL MEDICINE

1. **History taking/physical examination in internal medicine.**
2. **Respiratory system disorders**
 - Anatomy, Physiology and Pathophysiology of respiratory diseases
 - Common symptoms and signs
3. **Cardiovascular diseases**
 - Anatomy, Physiology and pathophysiology of heart diseases/body fluids.
 - Common symptoms and signs
 - Common drugs used in cardiovascular medicine.
4. **Haemopoetic System**

- Anatomy and physiology of Haemopoetic system
5. **Diseases of the Digestive system**
 - Physiology/pathophysiology of GIT/Hepatobiliary system
 - Symptoms and signs
 6. **Urogenital system diseases**
 - Renal physiology/pathophysiology of urogenital system
 - Signs and symptoms of urogenital diseases
 7. **Diseases of joints and connective tissues**
 - Anatomical consideration
 8. **Anatomy, physiology and immunology of the skin**
 9. **Central Nervous system disorders:**
 - Anatomy and pathophysiology of Central Nervous System disorders.
 - Signs and symptoms of Central Nervous System disease
 10. **Medical Ethics**

2. SURGERY

1. Outline of the Regional Anatomy of the Musculo-skeletal system

1. Head and Neck

- Anatomy of the scalp
- Important muscles
- Important blood vessels
- Lymphatic drainage

2. Axial skeleton

- Skull
- Spine
- Meninges

3. Upper Limb

- Important bones
- Major groups of muscles: flexors, extensors, adductors and abductors
- Important blood vessels
- Important nerves
- Lymphatic drainage

4. Lower Limb

- Important bones
- Major groups of muscles
- Important blood vessels
- Important nerves
- Lymphatic drainage

5. Trunk

(i) Chest wall

- Anatomy of the chest wall
- Anatomy and physiology of respiratory system

(ii) Abdominal wall

- Emphasis on anterior abdominal wall
- Layers of the anterior abdominal wall
- Topographic anatomy of the internal abdominal organs

- Incisions of the anterior abdominal wall: advantages and disadvantages
- (iii) Pelvis
- Emphasis on anatomy of the bony pelvis

6. **Gastro-intestinal tract**

Basic anatomy and physiology of the gastro-intestinal tract:

- Stomach
- Intestines
- Liver/Gallbladder
- Pancreas
- Spleen

7. **Genito – Urinary System**

Basic anatomy and physiology of the genito – urinary system

- Kidneys
- Ureter
- Urinary bladder
- Prostate
- Urethra

8. **Basic Physiology of:**

- Fluid and electrolyte balance
- Acid base balance
- Homeostasis
- Bone / Calcium metabolism

9. **Shock**

- Causes
- Pathophysiology

10. **Basic General Pathology**

- Cell damage
- Inflammation
- Wound healing
- Neoplasia

11. Postmortem

- Signs of death
- Changes after death
- Changes due to immersion in water
- Identification of human remains
- Basic toxicology

12. History taking and Clinical examination in a Surgical patient

3. PAEDIATRICS AND CHILD HEALTH

1. Definition of Pediatrics and Child Health
2. Child Health Demography
3. PHC programs and their impact on child survival
4. Immunization and expanded program of immunization
5. Reproductive and Child Health Services in Tanzania.
6. The Essential National Interventional packages (IMCI, Malaria control) – their anticipated impact on child survival.
7. Basic Nutrition
 - a) Definition
 - b) Different nutrients and their function in the body
 - c) Nutrient requirements in children
 - d) Different kinds of foods and their function in the body
 - e) Feeding patterns and food requirements in children
 - f) Factors promoting good nutrition
 - g) Breast feeding and its physiology, nutrients in breast milk, comparison of breast milk nutrients to those of cow's milk

- Advantages of breastfeeding
 - Disadvantages of not to breast feed
 - Techniques of breast feeding
 - Promotion of breast feeding
 - Weaning
8. Child growth and development and factors promoting child development
 9. Anthropometric measurements and their interpretation with special emphasis on road to health chart, head circumference chart and growth monitoring.
 10. Assessment of feeding problems
 11. Assessment of the nutritional status of the children in the community.
 12. Basic embryology, anatomy and physiology of:
 - Respiratory system
 - Cardiovascular system, fetal circulation
 - Gastrointestinal and Hepatobiliary system
 - Genitourinary system
 - Haemopoietic and lymphatic system
 - Endocrine system
 - Central nervous system
 - Musculoskeletal system
 - Skin
 - The immune system and immunopathology.
 - Anatomy, physiology, and pathophysiology of body fluids, the physiology of acid base balance and electrolytes.
 13. Introduction to congenital malformations
 14. Shock and its pathophysiology.
 15. Basic parasitology
 - Intestinal parasites
 - Other common parasites
 16. Pharmacology of common drugs in pediatrics
 17. Common symptoms and signs in common pediatric conditions
 18. Disease pattern in children according to age

19. Top ten diseases in children in Tanzania, the present trend.
20. History taking and examination in children

4. OBSTETRICS AND GYNAECOLOGY

1. History/physical exam of a gynecological patient
2. History/physical exam of an obstetric patient
3. Anatomy of the female reproductive organs
4. Fertilization and implantation
5. Embryology of the female genital tract (congenital anomalies)
6. Fetal placental unit and fetal circulation
7. Physiology of menstruation (Normal menstrual cycle)
8. Diagnosis of pregnancy
 - Symptoms
 - Signs
9. Emesis / Hyperemesis gravidarum
10. Physiological changes in pregnancy:
 - Body fluids
 - Glucose metabolism
 - Hematological changes
 - Respiratory changes
 - Gastrointestinal System
 - Genitourinary System
11. Fluid therapy in obstetrics. Emphasis on:
 - Induction of labor
 - PIH and eclampsia
 - Fetal distress
 - Shock
12. Bony Pelvis
 - Types of pelvis
 - Diameters
 - Clinical implications
13. Normal labor
 - Diagnosis
 - Stages

- Mechanism
- Management

14. The Partograph

PART II: CLINICAL ROTATIONS

INTERNAL MEDICINE

INTRODUCTION

An Assistant Medical Officer may work as an independent clinician or health manager at the level of a District hospital. Medical conditions in our set-up constitute the majority of both the common and difficult cases the Assistant Medical Officer will be consulted for. In many occasions, these centers are lacking easy access to Regional hospitals for consultations and referrals.

AIM:

The Assistant Medical Officer therefore, must be able to acquire sufficient practical and theoretical professional skills in the management of all the Medical conditions common in the Tropics.

GENERAL OBJECTIVES:

At the end of the course, AMO should be able to:

1. Recognize and treat the common tropical medical conditions and refer those outside his or her skills.
2. Use rationally the services of a clinical laboratory
3. Prescribe responsibly and rationally according to the Principles laid in the Standard Treatment Guidelines manual of the Ministry of Health.
4. Organize and manage properly a medical ward at District level.
5. Organize, Manage and supervise an out patient department.
6. Keep records, collect and interpret statistics from Medical ward in the district.
7. Acquire self directed learning skills and be able to educate others.

INSTRUCTIONAL OBJECTIVES:

The AMO should be able to:

1. Take proper history and carry out thorough physical examination of a medical patient.
2. Arrive at a reasonable diagnosis and give out logical differential diagnosis.
3. Describe the relevant laboratory investigations to be carried out for common medical condition.
4. Outline management plan for all common medical conditions.
5. Write a good discharge summary and referral letter.
6. Perform common laboratory procedures and interpret their results including x-ray picture.
7. Understand the indications, contraindications, dosages and side effects of commonly used drugs contained in the National List for Essential drugs (NLED).
8. Recognize and manage the side effects and overdose effects of all the above drugs.
9. Identify patients needing special/intensive care therapies and arrange the appropriate facilities.
10. Recognize and isolate/notify infectious diseases.
11. Supervise and maintain ward equipment in good functioning order.
12. Manage a ward round effectively at districts and regional level.
13. Establish and run adequate outpatient facilities at District and Regional level.
14. Make use of medical data for planning purposes at the District level.

C O N T E N T S:

1. Introduction to clinical medicine (to be taught in a block of 8 weeks)
2. Therapeutics to be taught under each disease system.
3. History taking/physical examination in internal medicine.
4. **Respiratory system disorders**
 - Upper Respiratory diseases - Tonsillitis, Sinusitis
 - Lower respiratory diseases - Pneumonia, Influenza, Pleurisy, Suppurative lung conditions, Empyema, Pneumocystis carinii pneumonia, Tracheo-Bronchitis, Pulmonary Tuberculosis .
 - Non - communicable diseases - chronic obstructive airway diseases, bronchial asthma, pneumothorax, Pulmonary embolism, Bronchogenic carcinomas, occupational lung disease.
5. **Cardiovascular diseases**
 - Heart failure/pulmonary edema
 - Rheumatic fever
 - Valvular heart diseases (congenital/acquired)
 - Hypertensive heart diseases
 - Pericardial diseases
 - Arrhythmias
 - Cardiomyopathies
 - Arteriosclerosis and its complications
 - Ischaemic heart diseases
 - Common drugs in cardiovascular medicine.
6. **Diseases of blood and lymphatics**
 - Anemia
 - Leukemia's
 - Multiple myeloma
 - Deep vein thrombosis
 - Bleeding disorders
 - Thrombocytosis

- Lymphomas (Hodgkin's /non-Hodgkin lymphoma)
- Anticoagulants and cytotoxic drugs

7. **Diseases of the Digestive system/Hepatobiliary system**

(1) Upper gastrointestinal disorders

- Oesophagitis
- Esophageal carcinomas.
- Gastritis
- Peptic ulcer diseases

(2) Lower gastrointestinal disorders

- Appendicitis and Diverticulitis
- Inflammatory Bowel Diseases such as Ulcerative colitis, Chron's disease.

(3) Diseases of a liver and Biliary system

- Cholecystitis
- Hepatitis
- Liver abscess
- Liver cirrhosis
- Hepatomas
- Portal hypertension
- Liver failure

(4) Others

- Pancreatic disorders
- Malabsorption syndrome
- Diarrhoeas

8. **Urogenital system diseases**

- Urinary tract infections including Tuberculosis, pyelonethritis/cystitis
- Glomerulonephritis (acute, chronic)
- Nephrotic syndrome
- Renal failure (acute, chronic)
- Urolithiasis

9. **Endocrine disorders**

- Diabetic mellitus
- Thyroid disease (hyperthyroidism/hypothyroidism)
- Diseases of the Adrenal Glands (Cushing's syndrome, Chron's disease,
Addison's disease, phaemochromocytoma)
- Diseases of pituitary gland (Hyper and Hypotuitarism).

10. **Diseases of joints and connective tissues**

- Rheumatoid arthritis
- Pyogenic arthritis
- Systemic Lupus Erythematosus/Osteoarthritis
- Reactive arthritis
- Spondylitis
- Gout

11. **Skin and special senses**

- Anatomy and physiology of the skin
- Eczemas
- Skin hypersensitivity reactions
- Psoriasis
- Bulous dermatosis
- Infections (Scabies and other ectoparasites).
- Leprosy

- Kaposi sarcoma
- Onchocerciasis/Filariasis

12. **Central Nervous system disorders:**

- Headache
- Epilepsy
- Cerebrovascular accidents
- Coma scale
- Paraplegia (TB spondylitis)
- Polyneuropathies
- Infections (meningitis, encephalitis, Guillain Barre Syndrome)
- Space Occupying lesions (Tumors, abscess, subdural haematoma)
- Alcohol and poisoning

13. **Infections and parasitic diseases**

- VIRAL - Yellow fever, Rabies.
- BACTERIAL- Relapsing fever, Typhoid fever, Cholera, Tetanus
- PROTOZOAL - Malaria
- **STI-Genital Ulcer Diseases**
 - Syphilis, Herpes simplex, Chancroid
 - Lymphogranuloma venerium
- **Genital discharge syndrome**
 - Gonorrhoea
 - Chlamydia
 - Trichomonas vaginalis
 - Bacterial vaginosis
 - Candidiasis

14. **HIV/AIDS**

- Clinical presentation
- Management
- Prevention

PRACTICAL ASSIGNMENT/PROCEDURE BOOK

1. Venepuncture/femoralpuncture
2. Set i/v drip
3. Cut down
4. Lumbar puncture
5. Abdominal paracentesis
6. N/G tube insertion
7. Pleural aspiration/diagnostic or therapeutic
8. Gastric lavage
9. Tapping a joint effusion

RESOURCES

Standard Textbooks

1. Hutchison's clinical methods 20th Edition
2. Principles and practice of medicine by Davidson – 20th Edition
3. Clinical pharmacology by Lawrence
4. Standard treatment guidelines manual from Ministry of Health.

Reference Textbooks

1. Medicine in the tropics by Woodruff/Manson Bahr – Tropical diseases
2. Clinical tropical diseases by Adams and Maegraith
3. Bedside diagnosis by Steward
4. Harrison's textbook of Medicine
5. Oxford Textbook of Medicine

15. PSYCHIATRY AND MENTAL HEALTH

INSTRUCTIONAL OBJECTIVES

The trainee must be able to:

1. Conduct a psychiatric interview with the patient and the relatives to elicit relevant

features from the family, marital, personal occupational environmental and medical aspects of the history.

2. Recognize in an identified in a patient the presence of disorders of: mood, perception, consciousness, esteem, contents of thoughts, orientation, memory and insight.
 3. Identify major physical and the psychosocial factors which have predisposed to a patient's psychiatric illness.
 4. Manage common psychiatric conditions.
 5. Understand the objectives of the Mental Health Program.

COURSE CONTENTS

1. Introduction, Etiology of **Psychiatric disorders**
2. Psychopathology: Signs and symptoms of Psychiatric disorders
3. Organic Psychoses (Organic Brain Syndrome)
4. Neuroses and Defense Mechanisms
5. Affective disorders
 - Mania/Hypomania
 - Depression
6. Schizophrenia
7. Personality disorders
 - Sexual perversion, impotence, premature ejaculation etc.
8. Substance/drugs abuse, dependence and withdrawals including Delirium tremens
9. Psychosomatic disorder
10. Psychopharmacology

RESOURCES

1. Audio tapes
2. Mental Health Education Models-TALC

TEXTBOOKS

1. A short textbook of Psychiatry - By Linford Rees

2. Manual - By C. Swift
3. Clinical Psychiatry - By Mayer Gross Elater and Roth
4. Key to Psychiatry - By M.I. Sainbury

16. RADIOLOGY

INSTRUCTIONAL Objectives

The trainee should be able to:

1. determine indications for X-ray examinations
2. identify qualities of a good X-ray pictures
3. read and interpret X-ray pictures
4. describe the hazards of ionizing radiation
5. carry out simple sonographic investigation and identity cases for referral

CONTENTS

- Basic physical of ionizing radiation, biological radiation, protective radiation.
- Equipments for X-rays: Tube, generator, cassette radiation
- Interpretation of various pictures
- Indications for examinations
- Ultrasonography

RESOURCE

Textbook of Radiology - by E & S Livingstone

2. SURGERY

INTRODUCTION:

Surgery is that branch of medicine in which an operation (handicraft or instrumental intervention) may have a great role to play in the treatment of a disease process or injury. It

involves precise understanding of the disease process or injury before a successful application or outcome may be achieved.

AIM:

Training of Assistant Medical Officers in Surgery is aimed at ensuring that students received a comprehensive surgical knowledge both theoretically and practically to enable them to work efficiently and effectively.

OBJECTIVES:

An Assistant Medical Officer should be able to recognize common surgical problems and manage or refer them accordingly.

INSTRUCTIONAL OBJECTIVES:

An Assistant Medical Officer should be able to :

1. Organize and conduct a surgical outpatient clinic at District level.
2. Select surgical patients who should be admitted and treated.
3. Treat surgical emergencies.
4. Assess patients pre-operatively, operatively and post-operatively.
5. Practice aseptic techniques.
6. Write a discharge form properly.
7. Write a referral letter properly.
8. Give concise follow-up instruction.

C O N T E N T S:

SECTION 1: GENERAL SURGERY

1. Head and Neck

Differential diagnosis of head and neck swellings and management.

- Acquired: Sebaceous cyst, lipomas, keloids etc.
- Congenital: cysts and fistulae of the neck

Thyroid gland:

- Outline of anatomy and physiology
- Differential diagnosis of thyroid enlargement and their management

2. Chest wall and Thoracic cavity:

1. Breast:

- Anatomy and lymphatic drainage
- Breast lumps differential diagnosis and management
- Breast carcinoma

2. Chest injuries

- Blunt and penetrating
- Pneumothorax, Haemothorax, Empyema

3. Esophagus

- Differential causes of dysphagia
- Carcinoma of the esophagus

4. Brochogenic carcinoma and other mediastinal tumors.

3. Abdomen:

1. Upper G.I.T. bleeding

- Esophageal varices
- Bleeding Peptic ulcer
- Gastritis
- Gastric tumors

2. Lower G.I.T. bleeding

- Hemorrhoids
- Ulcerative colitis
- Tumor of the rectum
- Diverticulitis
- Anal fissure

3. Peptic Ulcer disease

- Pathophysiology
- Surgical complications and their management

4. Carcinoma of the stomach

5. Acute abdomen:

- Definition
- Differential diagnosis

6. Blunt and penetrating abdominal injuries

7. Appendicitis

- Symptomatology
- Clinical diagnosis and Treatment

8. Intestinal obstruction :

Adults: High and low emphasis on sigmoid volvulus as a cause of low obstruction.

Newborn and childhood:

- Intussusception, congenital hypertrophic pyloric stenosis, Intestinal atresia, anorectal malformations, megacolon congenita

9. Anorectum

- Ischio-rectal abscess
- Fistula in ano (peri-anal fistula), Ano fissure
- Benign and Malignant conditions: Rectal polyp, carcinoma of the rectum, carcinoma of the anus and perianal warts.

10. Colostomy:

- Definition, Indication, Fashioning of Colostomy, Colostomy care.

11. Hernias:

- Definition, causes, clinical features, treatment and complications
- Groin (inguinal/femoral)
- Other hernias: epigastric, incisional, umbilical

4. Urogenital System:

1. Congenital malformations
 - ectopic kidney, undescended testis, posterior urethral valves, bladder exstrophy, hypospadias and epispadias
2. Haematuria:
 - Types and causes
 - Differential diagnosis and management
3. Obstructive uropathy
 - BPH, stricture, stones and malignancy
4. Hydrocele
 - Causes ,clinical features and treatment
5. Tumors of the genito-urinary system
 - Benign and Malignant – Wilm’s tumor ,bladder tumors, testicular tumors and carcinoma of the penis
6. Injuries of the genito-urinary system.

5. Recognition of some correctable congenital malformations and referral:

- Esophageal atresia ± tracheo-oesophageal fistula or vice versa
- Hydrocephalus and spina bifida
- Exomphalus
- Cleft lip and palate
- Club foot
- PDA initial management
- Congenital Hypertrophic pyloric stenosis

SECTION II ORTHOPAEDIC AND TRAUMA

1. Emergency Evaluation and Management of the severely injured patient.
2. Wounds: Classification and Management.
3. Fractures: Classification, Complications and Management.
 - Common fractures of childhood, adulthood and the very old.

4. Dislocation of the upper limbs- Shoulder and elbow joint
5. Dislocation of the lower limbs – Hip and knee joint
6. Peripheral nerve injuries - Recognition and Referral.
7. Spinal and Pelvic Fractures.
8. Amputation surgery: Principles and Indications.
9. Orthopedic Infections
 - Osteomyelitis
 - TB - bone (Pott's disease)
 - Arthritis

SECTION III: MISCELANEOUS RELEVANT SURGICAL CONDITIONS

1. Surgical Infections:

- Hand infections and their management
- Gas -gangrene, Actinomycosis

2. Common Bone Tumors

- Osteogenic Sarcoma
- Erwing's Sarcoma
- Multiple myeloma.

3. Head Injuries:

- Classification, evaluation of cranio-cerebral injured patient.
- Concussion, contusion, acute space occupying lesion, chronic space occupying lesions and their management.

4. Diseases of Blood vessels and the Lymphatics:

- General knowledge on the varicose veins, ulcers, thrombophlebitis, acute venous thrombosis, aneurysm.
- Pulmonary embolism causes.
- Vascular gangrene and diabetic foot.

5. Burns - Definition, classification, patho-physiology and management

6. Common Skin and soft tissue tumors.

- Kaporsis's Sarcoma
- Malignant ulcers
- Melanoma and related lesions.
- Ganglion
- Tumors of muscles

Assignment and Assessment:

During surgical rotation, the student should acquaint himself with procedures which form the minimal requirement before being signed off.

No.	PROCEDURE	ASSISTED	PERFORMED
General Surgery			
1.	Wound- Debridement/primary closure	3	5
	- Secondary closure	2	1
2.	Abscesses and pyomyositis - I & D	3	10
3.	Abdomen: Four quadrant tap	1	2
4.	Technique of Appendectomy	5	3
5.	Technique of splenectomy	2	-
6.	Colostomy fashioning	3	1
7.	Hernia repair.	5	3
8.	Urology: Hydrocelectomy	3	5
9.	Dorsal slit for paraphymosis	2	-
10.	Circumcision	3	5
11.	Suprapubic cystostomy/puncture	3	3
12.	Urethral catheterization	3	5
13.	Chest: insertion of inter-costal tube	3	2

Orthopedics

No.	PROCEDURE	ASSISTED	PERFORMED
14.	Reduction and immobilization of dislocations /fractures	4	10
15.	I & D for Osteomyelitis	2	2
16.	Skeletal and skin traction	2	5

E.N.T

17.	Nasal packing	2	2
18.	Ear syringing	2	2

19.	FB removal: Ear, Nose, Throat	2	2
20.	Tracheostomy	2	2
21.	Postmortem	1	2

BOOKS:

Standard Textbooks

1. A companion to Surgery in Africa by Davey
2. A short guide to trauma - Huckstep
3. TEXTBOOK OF SURGERY - BAILEY AND LOVE

Reference book

1. Operative Surgery - Farquhason
2. Emergency Surgery: Hamilton Bailey.

SECTION IV: ANAESTHESIOLOGY

General Objective

At the end of the course the AMO should be able to:

1. Assess and prescribe pre-operative and postoperative care.
2. Detect patient at risk for anaesthetic.
3. Prescribe appropriate fluid replacement preoperatively, intra-operatively and postoperatively.
4. Identify personally different types anaesthesia given and indications for their

use.

Contents

1. Monitoring patient using eyes, ears, fingers, sphygmomanometer, stethoscope, and thermometer.
2. Signs of the stages of anaesthetic.
3. Pharmacology of anaesthetic drugs.
4. Types, of Anaesthetic:
 - a) Local infiltration
 - b) Regional Anaesthesia
 - Spinal anaesthesia
 - Epidural anaesthesia
 - Saddle/ caudal block
 - (c) General Anaesthesia
 - E.M O and O W V. also adulthood for halothane and triene
5. Anaesthesia to shocked patients
6. Techniques of resuscitation of emergencies such as hypotension, bronchospasm, laryngospasm, cardiac arrest.
7. Anaesthesia to patients with medical problems in a surgical emergency eg. anaemia, heart diseases, malnutrition, and chest diseases.
8. Pediatric anaesthetic.
9. Anaesthesia to patients undergoing cesarean sections.

SECTION V: EAR, NOSE AND THROAT (ENT) DISORDER

INSTRUCTIONAL OBJECTIVES

The student AMO will at the end of the course he able to:

1. Identity and manage common ENT diseases.
2. Identify and refer some ENT disorders.
3. Describe common causes of deafness.
4. Identify and manage foreign body and abscesses in ear, nose, and throat

COURSE CONTENTS

Review anatomy of Ear, Nose and Throat.

Diagnosis and management of the following conditions:

- Allergic rhinitis
- Otitis media
- Catarrhal otitis
- Common causes of deafness, differential diagnosis and advice
- ENT traumas
- Nasopharyngeal tumors and polyps
- Care of patients with tracheostomy
- Mastoiditis
- Chronic ear infections
- Ozaena
- Tonsillitis
- Sinusitis
- Laryngitis
- Epistaxis
- Diagnose and refer complicated ENT cases.

PRACTICAL PROCEDURES

- Check for conductive/perceptive hearing
- Simple audiometric testing
- Screen newborns for deafness
- Indirect laryngoscopy
- Anterior and posterior rhinoscopy
- Syringing of ear canal
- Removal of foreign bodies from ear/nose and throat
- Tracheostomy/tracheotomy
- Posterior nasal packing

RESOURCES

1. Standard textbook - lecture notes on diseases on ENT by Miles Foxen.

2. Reference textbook - Scott - Brown's diseases of ENT by Bollantyne and Growers.

SECTION V1: OPHTHALMOLOGY

GENERAL Objectives

The trainee should be able to examine the eye clinically and select those which he/she can manage and those requiring referral.

INSTRUCTIONAL OBJECTIVE

The trainee should be able to:

- Examine an eye and identify abnormalities
- Estimate visual acuity in both literate and illiterate persons
- List the common causes of blindness in the tropics and state methods of prevention
- Provide the first line of treatments for traumatized eyes
- Manage common types of eye infections
- Diagnose and manage trachoma
- Diagnose and manage ocular complications of leprosy
- Diagnose and give first line management of glaucoma and refer
- Diagnose and know when to refer cataract/s
- Recognize and treat various manifestations of vitamin A deficiency in the eye
- Explain the Primary Eye Care Program - Tanzania
- Repair simple lacerations of the eye lid
- Excision of chalazion
- Remove foreign bodies from the eye.

COURSE CONTENT

1. Ocular anatomy and physiology
2. Ocular history and examination techniques
3. Use of basic diagnostic instruments
4. Basic pharmacology
5. Disease of the eye - Lids, Lacrimal apparatus, conjunctiva, cornea sclera and lens

6. Conditions of the eye
 - Glaucoma
 - Onchocerciasis
 - Tumors
 - Leprosy
 - Cataract
 - Strabismus
 - Amblyopia
 - Myopia
 - Hypertensive and diabetic retinopathies
7. Basic clinical optics and refraction
 - Elementary optics
 - Refractive errors
 - Use of lensometer
8. Preventive Ophthalmology
 - Traditional eye medicine
 - Chloroquine toxicity
 - Methyl alcohol
 - Steroids
 - Sensitization
 - Retinal disorders
9. Community eye health
 - Primary eye care
 - Program for prevention of blindness
10. Eye injuries
11. Common causes of blindness in the tropics with emphasis to Tanzania situation

RESOURCE

1. Handbook of Ophthalmology for Developing Countries - By Bisley
2. Slides and tapes from medical recording foundation UK: By Tomkirp
3. Outline of Basic Ophthalmology - By J. Taylor
4. Primary Eye Care for Health Workers International Eye Foundations.

SECTION VII: BASIC GENERAL PATHOLOGY

AIM

The Assistant Medical Officer with the Basic knowledge of general pathology will understand the disease process.

INSTRUCTIONAL OBJECTIVES

The Assistant Medical Officer should be able to:

1. Define common terms used in pathology in relation to clinical discipline.
2. Describe the pathogenesis sequel and prognosis of diseases.

CONTENTS

1. Tissue and Cell damage:

- cell damage
- neurosis
- fatty change
- atrophy
- amyloid deposition
- endogenous and exogenous pigments

2. Inflammation:

- endogenous and exogenous pigments
- acute
- chronic
- sequela of inflammation
- special type of inflammation i.e. pseudomembranous exudative
- granuloma
- ulcerations- simple and malignant
- general effects of infection - fever etc.
- cells in inflammation and infection

3. Healing:

- wound healing
- fibrosis
- regeneration
- special situations in healing
- pathology and fracture

4. Neoplasia:

- terms, dysplasia, metaplasia anaplasia, hyperplasia atrophy etc.
- cytological differentiation
- simple connective tissue tumors
- malignant epithelial tumors
- carcinomas and their way of spreading
- types of carcinoma
- malignant connective tissue tumors
- basic carcinogenesis

RESOURCES

1. Pathology Illustrated by A D.T. Govan/P.S. Macfarlane and R.Callendar

3.PAEDIATRICS AND CHILD HEALTH

INTRODUCTION

About 45% of the populations of Tanzania are children under 15 years. Almost all of them are born healthy, but approximately 250 out of every 1,000 children born alive die before the age of 5 years. It is quite apparent that, children below 5 years are vulnerable to diseases. Most of the diseases causing morbidity and mortality in children are either curable or preventable with the available resources.

AIM

To equip the Assistant Medical Officer with essential knowledge and skills on curative and preventive aspects in order to enable him/her to manage efficiently and effectively both common pediatrics conditions and PHC programs under his/her jurisdiction.

GENERAL OBJECTIVES

1. To organize and supervise Reproductive and Child Health Service
2. To assess and manage nutritional problems in children.
3. To diagnose and manage common pediatrics conditions.
4. To organize a pediatric in patient set up.
5. To keep records and evaluate the pediatric activities in both out patient and in patients.
6. To teach child health to junior health workers

INSTRUCTIONAL OBJECTIVES

1. REPRODUCTIVE AND CHILD HEALTH SERVICES:

A.M.O. should be able to implement the Reproductive and Child Health guidelines within his/her catchment area.

Contents:

- Organize supplies for R/CH clinics
- Train and supervise staff
- Coordinate R/CH team
- Integrate R/CH activities with other health services

- Keep and interpret R/CH records for planning purposes
- Assess R/CH statistics against population served
- Manage immunization program including ordering storing and handling of vaccines.
- Organize and run R/CH clinic.
- Chart, interpret and use road to health chart. i.e. weight for age.
- Identify risk factors and take relevant actions.
- Teach parents how to interpret weight of the child on the card.

2. NUTRITION

AMO should be able to describe normal feeding patterns and food requirements of children.

Contents:

- Determine nutrients requirements of children.
- Carry out survey on locally available foods and determine their nutritional values.
- Interpret food tables.
- Assess the nutritional status of children in the community.
- Be acquainted with normal anthropometric measurements
- Management of protein energy malnutrition (PEM)
- Prepare and implement appropriate feeding tables
- Prepare suitable rehabilitation program (Community based)
- Treat other nutritional disorders:
 - vitamin deficiencies, A, B, C, D, Niacin, K,
 - mineral deficiencies, iodine, fluoride, zinc.

3. PAEDIATRIC INPATIENT

AMO should be able to:

1. Organize general pediatric ward
2. Organize intensive care corner

3. Organize diarrhea treatment corner
4. Prepare ORS solution
5. Know how to grade dehydration
6. Know how to rehydrate the child orally and intravenous
7. Organize and supervise neonatal care unit
8. Supervise and maintain pediatric equipments in good functioning order

4. PAEDIATRIC OUTPATIENT

AMO should be able to organize and supervise pediatric outpatient department.

5. PAEDIATRIC CONDITIONS

AMO should be able to:

- 1) Manage common pediatric conditions
- 2) Identify and refer those conditions which will benefit from referral
- 3) Do counseling on common pediatric conditions.

6. RECORDS

AMO should be able to make use of medical data for planning purposes in his/her catchment area.

7. EDUCATION AND TRAINING

AMO should be able communicate his knowledge on child health to his/her junior staff

8. DISEASES OF CHILDREN

8.1. Perinatal – Neonatal Medicine

- Definition
- Perinatal mortality in Tanzania
- Studies done in Kisarawe and Hai District
- Why neonatal care in Tanzania? The first forty days follow up.
- Care of the normal newborn
- Problems of the newborn

- Asphyxia neonatorum, Apgar scoring system and resuscitation of the newborn
- Respiratory distress; causes and their management.
- Infections:
 - Congenital; TORCH and syphilis, HIV/AIDS, other congenital infections
 - Neonatal septicemia and other infections
 - Birth injuries
 - Cold injury and hypothermia
 - Neonatal jaundice, causes and management
 - The bleeding neonate:
 - Haemorrhagic disease of the newborn
 - Bleeding from umbilical cord stump
 - Other causes of bleeding in a neonate
 - Neonatal convulsions
 - A neonate with anaemia, causes and management
 - The preterm baby
 - The small for date baby
 - Feeding the neonate

8.2. Respiratory System

- Congenital malformations of respiratory system
- Pathophysiology of respiratory diseases
- Common symptoms and signs
- Upper respiratory diseases: tonsillitis, pharyngitis, acute and chronic otitis media, common cold, the catarrhal child, epiglottitis, laryngitis
- Lower respiratory diseases: pneumonia, laryngotracheobronchitis, bronchitis, lung abscess, bronchiectasis, empyema, pleural effusion.
- Bronchial asthma, etiology and management
- Differential diagnosis of a child with chronic cough
- Differential diagnosis of a child with stridor.

ARI (Acute Respiratory Tract Infections)

- Epidemiology
- Causal factors
- Risk factors
- Prevention

8.3. Cardiovascular System

- Pathophysiology of cardiovascular diseases
- Common symptoms and signs
- Congestive cardiac failure
- Congenital heart diseases
- Rheumatic fever
- EMF and other cardiomyopathies in childhood
- Myocarditis
- Hypertension

8.4. Gastro intestinal and hepatobiliary system

- Embryology
- Congenital malformations
- Pathophysiology
- Common symptoms and signs
- Diarrhea diseases, acute and chronic
- Malabsorption syndrome
- Appendicitis
- Recurrent abdominal pain
- Hepatitis
- Hepatic cirrhosis
- Portal hypertension
- Hepatic failure
- Differential diagnosis of hepatosplenomegaly
- Malaria hyperactive splenomegaly (TSS)
- Pancreatitis, acute and chronic

8.5. Genitourinary system

- Embryology
- Congenital malformations
- Pathophysiology
- Common symptoms and signs
- Urine collection, techniques and methods
- Haematuria, differential diagnosis
- Urinary tract infection
- Acute glomerulonephritis
- Chronic glomerulonephritis
- Nephrotic syndrome
- Renal failure, acute and chronic
- Renal osteodystrophy
- Other diseases of renal system
- Disorder of the genital system

8.6. Edema

- Pathophysiology
- Differential diagnosis

8.7. Diseases of the blood and lymphatics

- Embryology
- Normal blood indices according to the age
- Pathophysiology
- Anemia
- Bleeding disorders
- Differential diagnosis of enlarged lymphnodes

8.8 Central nervous system

- Embryology

- Congenital malformations
- Common signs and symptoms
- Non recurrent convulsions in infancy and childhood
- Epilepsy in children
- Coma (the unconscious child)
- Meningitis
 - Bacterial
 - Tuberculous
 - Viral
 - Fungal
- Encephalitis
- Cerebral palsy
- Mental retardation
- Degenerative diseases
- Polyneuropathy

8.9. Common behavior problems in infancy and childhood

8.10. Endocrine system

- Embryology
- Diabetes mellitus
- Diseases of the thyroid and parathyroid gland
- Diseases of the pituitary gland
- Diseases of the adrenal glands

8.11. Diseases of the joints, bone, and connective tissue

- Embryology
- Congenital malformations
- Acute and chronic osteomyelitis
- Pyogenic arthritis
- Juvenile rheumatoid arthritis

- Others

8.12. Diseases of the muscle

- Embryology
- Duchenne muscular pseudohypertrophy
- Others

8.13. Skin conditions:

- Eczemas
- Skin hypersensitivity reactions
- Prickly heat rash (miliaria)
- Drug eruptions
- Pemphigus
- Skin infections, scabies and other ectoparasites
- Haemangiomas
- Bullous diseases
- Others

8.14. Infections in infancy and childhood:-

- Malaria
- Tetanus
- Measles
- HIV/AIDS
- Whooping cough
- Chicken pox
- Mumps
- Streptococcal infections
- Poliomyelitis
- Mononucleosis
- Typhoid fever
- Roseola infantum
- Fifth disease
- Pyomyositis
- Rubella

- Relapsing fever
- Septicemia
- Diphtheria

8.15. Parasitic diseases

- Intestinal parasites
- Other parasites

8.16. Neoplastic diseases in infancy and childhood

8.17. Accidents and poisoning in children

8.18. Common pediatric emergencies

8.19. Malnutrition

- Definition
- Etiology
- Wellcome trust classification of protein energy malnutrition (PEM)
- Moderate PEM (Underweight), its management.
- Severe PEM, its management
- Vitamin and mineral deficiencies, diagnosis and treatment.
- Vitamins A, B, C, Niacin, D, K
- Minerals iodine, fluoride, zinc.
- Prevention

8.20. Shock – Endotoxic, hypovolaemic, anaphylactic, neurogenic, its management

8.21. IMCI - Refer IMCI Modules

9. PRACTICAL PROCEDURES LIST

1. Setting of i.v. drips (using scalp vein – needles)
2. Shaving of the scalp in children
3. Lumbar puncture
4. Collection of urine including catheterization of bladder
5. Aspiration of chest
6. Paracentesis
7. Resuscitation of the newborn and older children
8. Cutdown
9. Taking venous and capillary blood, femoral puncture
10. Stomach wash out
11. I.V Injection into umbilical cord

10. RESOURCES

Standard Textbooks

1. Child Health Manual – KCMC (Recent edition)
2. Management Schedules Pediatric Department - KCMC
3. Jolly's Diseases of Children (Recent edition)
4. Child Health in the Tropics, By D.B. Jellife (Recent Edition)
5. Practical Pediatric Problems, By Hutchson (Recent Edition)
6. Current Pediatric Diagnosis and Treatment, -Lange (Recent Edition)
7. Pediatric Priorities in Developing World; By Morley (Recent Edition)
8. Diseases of Children in the Tropics and Subtropics, Edited by Paget Stanfield (Recent Edition)
9. Nutrition in Developing Countries By Burges and Felicit King (Recent Edition)
10. Nutrition in Tropical Africa By Latham (Recent Edition)
11. Social and Community Pediatrics in Developing Countries (caring for the rural poor) By G.J. Ebrahim (Recent Edition).
12. Tanzania Food Tables.
13. Hutchsons Clinical Methods (Recent Edition)
14. IMCI Facilitators guides and modules

Reference Text Books

1. Manson and Bahr Tropical Diseases (Recent Edition)
2. Nelson Textbook of Pediatrics (Recent Edition)

4. OBSTETRICS AND GYNAECOLOGY.

INTRODUCTION:

The word gynecology denotes the study of woman-kind. Recently it has been restricted to a study of disorders of the female genital organs. Obstetrics is part of gynecology and deals with the human reproductive process. Obstetrical care in the narrower sense consists of care of the pregnant woman, her safe delivery, her postnatal care and examination, the care of her newly born infant and the maintenance of lactation.

AIM:

This curriculum intends to improve the knowledge, attitude and practical skills of the Assistant Medical Officer to enable him/her to provide a better obstetrical and gynecology service to the community.

GENERAL OBJECTIVES:

The Assistant Medical Officer should be able:

1. To recognize and manage the common obstetrical and gynecological problems.
2. To distinguish between those conditions which he/she can, adequately manage and those which require referral.
3. To organize and supervise Reproductive and child health services in the catchment area.
4. To keep proper records, analyze and interpret them in order to improve the services provided.
5. To teach other health workers and the community the principles, concepts and practices of Reproductive and child health care.

PART I OBSTETRICS

Instructional Objectives

The Assistant Medical Officer should be able to:

- Plan, organize and supervise Reproductive and Child Health clinics.
- Perform routine antenatal examination procedures.
- Define and set criteria for the detection of the pregnant women who need comprehensive obstetric care.
- Keep Reproductive Child Health records and be able to analyze, interpret the data and then take appropriate measures.
- Organize and conduct health education campaigns in maternal and child health and the community
- Diagnose, treat disorders of pregnancy.
- Diagnose and manage normal labor as well as the problems arising during labor.
- Determine when operative vaginal or abdominal delivery is indicated and be able to perform such operations.
- Prepare a resuscitating tray and be able to resuscitate the new born
- Diagnose and treat postpartum complications.
- Diagnose and treat problems of the newborn
- Identify and assess congenital abnormalities of the newborn and be able to refer those who can benefit from referral.
- Counsel clients for various methods of family planning

A. ANTENATAL CARE

1. History taking during ANC should be able to reveal a pregnant woman such as:

- Age below 16 years or above 35 years
- Parity more than 5
- Perinatal Mortality
- Previous PPH and retained Placental
- Prolonged labor
- Birth trauma
- Abortions
- PROM and Preterm Labor
- Hypertensive disorder of pregnancy
- APH
- Multiple pregnancy
- Assisted or previous operative deliveries e.g. (VE Forceps and C/S).
- Repaired Fistulae (VVF/RVF)

2. The physical examination should include a thorough general examination to reveal.

- The stature below 150 c.m.
- Anemia
- High Blood Pressure
- Edema (Generalized)
- Disproportion and Contracted Pelvis
- Malpresentation
- Discrepancy in Fundal height

Note: The need for speculum examination should be stressed more especially at booking

B. Common conditions which complicate pregnancy:

- Malaria in Pregnancy
- Anemia in pregnancy and other hematological diseases.
- Heart disease
- Diabetes Mellitus
- Intrauterine Fetal death
- Renal diseases in Pregnancy
- PHI (Pregnancy Induced Hypertension).
- Placentae previa and Abruption Placentae
- Coagulation disorders in obstetrics.
- PROM and Preterm Labor
- IUGR(Intra Uterine Fetal Growth Restriction)
- Multiple gestation and malpresentations
- Postmaturity
- ISO-immunization in Pregnancy(Rh)
- HIV/AIDS (Vertical transmission)

C. ABNORMALITIES OF LABOUR AND PUERPERIUM

1. Prolonged 1st Stage of Labor:

- Diagnosis
- Causes
- Management

2. PROLONGED 2ND STAGE: OF LABOUR

- Diagnosis
- Causes
- Management

3. COMPLICATIONS OF THE 3RD STAGE

- Diagnosis
- Causes

- Management
- Emphasis to be placed on 3rd degree tears, PPH, retained placenta, uterine inversion and post-partum collapse.

4. Malpresentation during labor

- Breech and Twin delivery
- Face presentation
- Brow presentation
- POPP presentation
- Shoulder and compound presentation
- Cord presentations and prolapse

D. ELECTIVE DELIVERY

- Trial of labor
- Induction of labor

E. SAFE MOTHERHOOD INITIATIVE

F. ESSENTIAL OBSTETRIC CARE

- Basic EOC
- Comprehensive EOC

G. OPERATIVE DELIVERIES:

1. Cesarean Section

- Indications for C/S.
- The pre and post operative care
- The operative Technique
- Complications
- Care of patient with previous scar

2. The Ventouse:

- Indications
- The pre and postoperative care

- The Technique
- Complications

3. Episiotomy:

- Indications
- Types
- Technique
- Repair and postoperative care
- Complications

H. PROBLEMS OF THE NEWBORN.

- Asphyxia(Apgar scoring system)
- Birth injury
- Sepsis
- Jaundice & Hemolytic disease of the newborn
- Idiopathic Respiratory distress syndrome.
- Low birth weight baby - Prematurity
- Congenital malformation
- Cold injury and Hypothermia

Note: That the safe transfer of premature baby should be dealt with to prevent Hypothermia.

I. POST PARTUM Complications:

- Anemia
- Puerperal sepsis
- Breast infections
- Primary & Secondary PPH and postpartum collapse

- Puerperal Psychosis
- Malaria
- Deep Vein thrombosis
- Transient Hypertension of pregnancy

J. PRACTICAL OBSTETRICS AND OPERATIVE PROCEDURES:

(A Procedure book is needed to be signed by a supervisor during clinical rotation)

	PROCEDURE	ASSISTED	PERFORMED
1.	Normal delivery	5	10
2.	Repair Episiotomy	2	10
3.	Multiple pregnancy delivery	2	2
4.	Breech delivery	2	3
5.	Vacuum Extraction	3	2
6.	Ruptured Uterus & Laparotomy	1	-
7.	Cesarean Section	5	3
8.	Examination of uterus in case of P.P.H	2	2
9.	Manual Removal of Placentae	2	3
10.	Puerperal-Interval tubal ligation	5	2

PART 11 GYNAECOLOGY

INSTRUCTIONAL OBJECTIVES

The Assistant Medical Officer should be able to:

1. Take a good gynecological history
2. Perform a gynecological examination

3. Recognize the common gynecological problems in patients and manage them or refer.
4. Perform simple gynecological investigations e.g. Wet smear, Pap smear etc.
5. Perform certain emergency and elective gynecological procedures.

COURSE CONTENT:

A. ABNORMALITIES OF MENSTRUATION

- DUB
- Amenorrhoea
- Dysmenorrhoea
- Menorrhagia
- Metrorrhagia

B. REPRODUCTIVE FAILURE (INFERTILITY)

- Female and Male factors
- Investigations
- Treatment
- Counseling

C. ABORTIONS

The following types of abortions will be discussed under these sub-headings

- Causes
- Diagnosis and differential diagnosis
- Treatment
- Complications
- Prevention

Types of Abortions:

- Threatened abortion
- Inevitable abortion
- Incomplete abortion
- Septic abortion

- Induced Abortion
- Habitual abortion
- Therapeutic Abortion
- Missed abortion

D. ECTOPIC IMPLANTATION AND ADVANCED ABDOMINAL PREGNANCY

- Causes
- Diagnosis an differential diagnosis
- Treatment
- Complications

E. GESTATIONAL TROPHOBLASTIC DISEASES

(a) Molar pregnancy

- Presentation
- Diagnosis
- Treatment
- Follow up
- Complications

(b) Chorion carcinoma

- Presentation
- Diagnosis
- Treatment
- Follow up
- Complications

F. INFECTIONS IN GYNAECOLOGY

- Lower genital tract infections
 - Trichomonas vaginalis
 - Candidiasis
 - Syphilis
 - Gonococcus

- Viral warts
- Bartholin Abscess & Cysts
- Bacterial Vaginosis

- Upper Genital Tract Infections
 - Salpingitis and Salpingoophritis
 - Pelvic Abscess
 - Endometritis
 - Genital T.B.
 - Schistosomiasis
 - Chlamydia Trichomatis

G. GYNAECOLOGICAL TUMORS:

- Carcinoma of the cervix
- Endometrial carcinoma
- Uterine Fibroids
- Benign Ovarian tumors
- Malignant Ovarian tumors
- Metastatic Ovarian tumors

H. TRAUMA IN GYNAECOLOGY

- FGM (Female Genital Mutilation)
- Sexual assault – Medical Legal consideration
- Gynecological Fistulae

I. UTERINE DISPLACEMENT

- Prolapse of vagina & uterus
- Retroversion of the uterus

J. CONTRACEPTIONS:

- Contraceptive technology.
- PAC (Post abortal care)- MVA (Manual Vacuum Aspiration).
- Perform family planning procedures.

- Should be able to counsel couple on family planning.

Different method of contraceptives

- Natural family planning methods
- Barrier methods of family planning
- Vaginal tablets and foams
- IUCDS
- combined oral contraceptive and progesterone only pills
- DMPA
- Implants
- Surgical
 - Laparotomy T.L.
 - Minilap T.L.
 - Laparoscopic T.L.
 - Vasectomy

K. GYNAECOLOGICAL PROCEDURES

- Evacuation
- IUCD insertion
- Tubal ligation (Minilap)
- Marsupialization of Bartholin Cyst/abscess
- Laparotomy for ruptured Ectopic & Autotransfusion
- Cervical cauterization
- Pap smear
- MacDonald Suture
- Hysterectomy
- Laparotomy for ovarian cystectomy

BOOKS:

Student Text books

1. Fundamental of obs/gyn: Vol.1 and II Dereck Llewellyn - Jones
2. Obs/gynaecology in the Tropics by Lawson and Stewart
3. Obstetric illustrated - Garrey
4. Gynecology illustrated - Covan Hodge and Calender
5. Current obs/gyn. Diagnosis and Treatment by Martin L. Pernoll & Raph C. Benson

Other Textbooks:

1. Obstetrics: Clayton, Fraser, and Lewis
2. Gynecology: Clayton, Fraser, and Lewis

PART III

COMMUNITY MEDICINE

INTRODUCTION:

Community medicine is the science and art of preventing disease, prolonging life, and promoting physical and mental health. It requires organized community efforts for the sanitation of the environment, the control of community infections and the education of the individual. Equally important it requires the development of social machinery which will

ensure to every individual in the community a standard of living adequate for the maintenance of health. The focus of community medicine in the community is through Primary Health Care (PHC) concept and strategy.

AIM:

The aim of community medicine course is to enable the Assistant Medical Officer to manage both effectively and efficiently the PHC programs under his/her jurisdiction.

GENERAL OBJECTIVES:

The Assistant Medical Officer should be able to:

1. Assess the health priorities within an area by estimation from available data and by means of simple surveys.
2. Maintain supplies and equipment regularly in all peripheral units under his/her care.
3. Supervise activities on the control of major endemic/epidemic diseases.
4. Advise relevant authorities on the control of major endemic/epidemic diseases.
5. Teach, train and conduct refresher courses for all health workers under his/her care.
6. Plan, manage, supervise and evaluate all programs under his/her care.

UNIT I: DEMOGRAPHY, EPIDEMIOLOGY, MEDICAL STATISTICS

SPECIFIC INSTRUCTIONAL OBJECTIVES:

The assistant Medical Officer should be able to:

1. Interpret population pyramid.
2. Design, conduct, analyze and present survey findings.
 - Apply epidemiological knowledge in describing disease patterns and distribution.
 - Apply statistical knowledge in interpreting descriptive and analytical findings of studies or available information.

CONTENT:**UNIT 1.1. DEMOGRAPHY**

Definitions of: Demography, census, population pyramid, vital statistics, population growth rate, population projection, fertility rate, fecundity, immigration, emigration, doubling time, sex ratio, standardization.

UNIT 1.2. EPIDEMIOLOGY

- Definition of epidemiology
- Types of epidemiological studies. Descriptive, analytical, retrospective, cross sectional, prospective, experimental.
- Calculations of morbidity and mortality rates: Incidence rate, prevalence rate, crude and specific rates
- Natural history of disease
- Levels of prevention: Primary, Secondary and tertiary levels/types of prevention
- Sample and sampling methods: random, convenient or purposeful sample
- Types of random sampling. Simple, systematic, multistage, cluster sampling.
- Screening tests: Validity, reliability, specificity, sensitivity, predictive value, relative risk value.

- Research/Survey methodology: Selection of topic or hypothesis, literature review, statement of broad and specific objectives, methodology, logistics, budget and action plan. Data analysis, interpretation, presentation and discussion .

Health Management Information System

- Definition
- Source of data
- Quantity and quality of data
- Source of error
- Storage of data/data bank
- Retrieval and analysis of data
- Interpretation of data
- Feedback.

- Record keeping

UNIT 1.3 MEDICAL STATISTICS

- Definition
- Measures of central tendency: Mean, mode, median
- Measures of dispersion: range, variance, standard deviation and confidence interval
- Tests of significance; t-test, P-value, chi-square.
- Calculation of ratios, proportions and percentages.
- Data presentation methods: Summary tables, graphs, histograms, frequency polygon, pie charts, scatter diagram, maps, correlation of graphs.

PRACTICAL ASSIGNMENT

A group of Assistant Medical Officer students should:

- Draw a map and attempt a population estimate of the catchment areas of a dispensary - using the last census, district office estimates and local discussion with local executive.
- Calculate the probable annual, monthly, weekly, number of various, vital statistics on the basis of the national average, within the catchment area.
- Estimate the percentage health service coverage of this catchment area by comparing the actual number served with the estimated number needing service - for example, of antenatal mothers, children under 5 years, tuberculosis and leprosy patients.
- Report to group and discuss methods of increasing coverage.

UNIT 2 ENVIRONMENTAL AND OCCUPATIONAL HEALTH

SPECIFIC INSTRUCTIONAL OBJECTIVES

The Assistant Medical Officer should be able to:

- Sensitize local people to take self help remedial measures on environmental hazards.
- Assist and reinforce the work of the health officer.
- Prevent/advise on occupational/professional health hazards

CONTENT

UNIT 2.1 ENVIRONMENTAL HEALTH

UNIT 2.1.1. WATER SUPPLY

- Sources of water supply and the advantages and disadvantages of each type of sources
- Main methods of water storage
- Sources of water contamination
- Methods of protecting each type of water source
- Diseases spread by contaminated water
- Simple methods of water purification: boiling, chlorination, iodine and filter.

UNIT 2.1.2. REFUSE DISPOSAL

- Types of refuse and their sources in different communities
- Danger of poor refuse disposal
- Main methods of refuse disposal and their indications

UNIT 2.1.3. EXCRETA DISPOSAL

- Main methods of disposal of human excreta
- Economic and practical considerations which determine which methods are used
- Construction of different types of latrines, deep pit, shallow pit, trench, bore holder and ventilated improved latrine, sewage system.
- Common faults in latrine construction and their dangers
- Disease which are caused by improper faeces disposal

UNIT 2.1.4. HOUSING

- Criteria for an adequate rural house
- Health hazards of poor housing
- Permanent and temporary houses advantages and disadvantages
- Adequate sleeping space
- Types of ventilation and lighting.

UNIT 2.1.5. FOOD HYGIENE

- Diseases spread by contaminated food and the mode by which food is contaminated
- Diseases spread by milk
- Diseases which may be contracted from meat
- Regulation necessary to safeguard the public in relation to the public sale of food
- Methods used to preserve various food stuff e.g. fish, meat and vegetables in rural conditions.

UNIT 2.1.6. VECTOR CONTROL

Methods which would practically adopted by a village community on a self-help basis to control the following factors of diseases:

- housefly
- mosquito
- bilharzia snails
- house ticks (ornithodorus)
- fleas
- cockroaches
- rodents
- simulium
- bedbugs

UNIT 2.2 OCCUPATIONAL HEALTH

- Main functions of an occupational health service
- The main industrial hazards occurring in Tanzania (physical, chemical, biological and sociological)
 - Safety precautions which may be used in the control of these hazards
 - Inspections or Agencies involved in the control or prevention of occupational health hazards
 - Group occupational health, Food commission, environmental health association, Labor officer, Commissioner of Lands, Municipal Engineer. The role of the

employer in the control of occupational health hazards e.g. noise, vibration, light etc.

PRACTICAL ASSIGNMENT

1. A group of Assistant Medical Officer should make a detailed environmental report on the catchment area of a dispensary/health center on: various types of water supply of the area, adequacy, protection and safety. Students should visit excreta disposal (sewage system) and water source.
2. Methods of excreta disposal, number, conditions of repair and usage of latrines.
3. Methods of refuse disposal and problems flies and vermin.
4. Type and prevalence of fecal and water borne diseases within the area.
5. Prevalence of helminthiasis - preferably using the equipment of the local dispensary or health center - if any.
6. Identify any occupational hazards in the area-whether related to Agriculture or small scale industries. Write a report and suggest preventive measures.
7. Where possible, each visits a food factory, textile, dump according to a prepared formula - e.g. checklist.

UNIT 3: COMMUNICABLE DISEASE CONTROL

SPECIALIST INSTRUCTION OBJECTIVE

- The Assistant Medical Officer should be able to initiate the investigation and the management of an outbreak of major epidemic disease like cholera, plague and meningitis. Endemic diseases like malaria, schistosomiasis, intestinal helminthes, tuberculosis , leprosy and HIV/AIDS.
- Emphasis on each disease mentioned above should be on the following headings:
 - Aetiology
 - occurrence

- reservoir
- mode of transmission
- incubation period
- susceptibility and resistance
- isolation
- quarantine/surveillance
- immunization
- investigation of contacts
- specific treatment
- epidemic treatment
- disaster implications
- international measures

PRACTICAL ASSIGNMENT

Within the catchment area of the assigned dispensary or health center choose a prevalent endemic disease.

- Make a rough estimate of the prevalence of this disease within the area
- Draw up several possible methods of control and calculate the cost of each method
- In group seminars present the findings and discuss with fellow-students under guidance.
- Present the cheapest, most practical method to the local District Medical Officer for discussion in the appropriate District Development Committee.

N.B. This assignment should be detailed. If latrines are required cost of material should be estimated. If chemoprophylaxis, the number and cost of tables, etc. labor estimates should be self-help as far as possible, with some skilled supervision.

UNIT 4

PLANNING, MANAGEMENT, SUPERVISION AND PHC PROGRAMMES

SPECIFIC INSTRUCTIONAL OBJECTIVE

The assistant Medical Officer should be able to initiate, plan, manage, organize, supervise and participate in PHC programs.

UNIT 4.1 PLANNING, MANAGEMENT, SUPERVISION

CONTENT

Planning

- Definition of Planning
- PIE - Planning, Implementation and Evaluation.
- Problem of planning

Management

- Management by crisis
- Management by objectives
- Principles of management
- Concept of management
- Management styles
- Authority
- Power
- Influence
- Delegation
- Basic human needs
- Problem solving and
- Decision making process.

UNIT 4.2 PRIMARY HEALTH CARE AND HEALTH SECTOR REFORMS

CONTENT

Primary Health Care

- PHC concept
- PHC strategy
- PHC elements
- PHC programs – e.g. FP, EPI,RCH etc.

Health Sector Reforms

- Definition
- Key reforms

UNIT 5 BEHAVIOURAL SCIENCE, HEALTH EDUCATION AND EDUCATIONAL THEORIES/PRINCIPLES

5.1 BEHAVIOURAL SCIENCE

SPECIFIC INSTRUCTIONAL OBJECTIVE

The assistant Medical Officer should be able to identify and describe the social, cultural factors which affect health development in the community.

CONTENT

- Family and social relations
- Customs, beliefs and taboos
- Drives and inhibitions which operate within communities and directly or indirectly affect health standards

5.2 HEALTH EDUCATION

Effective delivery of Health Education entails knowledge and use of theories and practices of Information Education and Communication (IEC). Therefore, the AMO should understand the concept of IEC in order to deliver Health Education to an individual, family and the community.

CONTENTS

- Definitions of: Information, Education, Communication, health promotion, and Health Education.
- Methods
 - ⇒ Interpersonal Communication
 - ⇒ Mass media
 - ⇒ Print
 - ⇒ Radio/TV/Video
 - ⇒ Folk media.

⇒ Communication skills and counseling

5.3 EDUCATIONAL METHODOLOGY

An Assistant Medical Officer should be equipped with theories, practices, teaching and learning methodologies.

CONTENTS

Teaching and Learning

- Introduction to learning
- Principles of adult learning
- Selection at use of learning/teaching aids.

Strategic for Teaching

- Cognitive domain
- Affective domain
- Psychomotor domain

Teaching methods

- Lecture discussion
- Group discussion
- Practical
- Field visit
- Tutorials
- Assessment of student
- Planning as organization of workshop/seminar

Assessment

- Definition
- Types of assessment

PRACTICAL

1. Choose a management problem related to functioning in the assignment area and analyze it according to the problem solving process
2. Take a specific topic and after defining the objectives, train a group of Health personnel in that specific skill

FIELD WORK

This follows the layout presented under research/survey methodology. Because of constraints of manpower and financial resources, it is only feasible to teach all units in this discipline during the 8 weeks. The last four weeks are then spent on survey methods as follows:

- 1st week survey protocol design at the school
- 2nd week collection in the field
- 3rd week data analysis and report writing while at school
- 4th week report presentation in class plenary where there could be invited guests.

This last four weeks of the survey exercise is a reflection of all the knowledge learned in the five units.

In the background information of the final report of the survey, the group makes a community diagnosis of the situation the survey was conducted.

BOOKS

Students text books

1. Lucas A.O. Gilles H.M. A new Short Textbook of Preventive Medicine for the tropics
3rd Edn. Edward Arnold, London 1990.
2. Banker, D.J.P. Practical epidemiology
3rd edn. ELBS. English language, Book Society/Churchill Livingstone
U.K. 1982

3. Kanani, S. Maneno, J. Scholter, P.
Health Services Management Administrative Support Unit, Ministry of Health, Kenya, and Training Department, MREF.
4. Benenson, A.S. Control of Communicable diseases in Management 14th Edn.
The American Public health Association, Washington, D.C. 1985.
5. Primary Health Care - Alma Ata 1987.
6. Primary Health Care - Ministry of Health
Tanzania and DANIDA - Jan. 1992.
7. Manso Barr –Medicine in the Tropics.
8. C. Hood, J.P Vaughan, H. de Glanville- Community Health.

OTHER RECOMMENDED REFERENCE BOOKS

1. Mwaluko G.M.P., Kilama W.L., Mandara M.P., Murru M. Macpherson C.N.L.
Health and Disease in Tanzania
Helper Collins Academic. London 1991.
3. C. Andrew Person. Medical Administration for Front-line Doctors. A practical guide to the management of district level hospitals in public service or the private sector.
FSG Communications Ltd. Publishers of Africa Health Journal, London. 1990.

4. Burt Scanlan and J. Bernard Keys. Management and Organizational Behaviour.
John Wiley & Sons, Inc. New York. 1979.

5. W. Lutz. Community health surveys. A practical Guide for Health Workers.
Published by the International Epidemiological Association. Switzerland. Second
Edn. 1978. They are in a set of 5.
 1. Planning and Organizing
 2. Surveying sampling
 3. Using available information
 4. Questionnaire design
 5. Interviewing and recording.