##### UNITED REPUBLIC OF TANZANIA

##### MINISTRY OF HEALTH



# TANZANIA FOOD AND DRUG ADMINISTRATION (TFDA)

ACCREDITED DRUG DISPENSING OUTLET (ADDO)

TRAINING MANUAL

(revised version)

**November 2005**

Accredited Drug Dispensing Outlet (ADDO) Training Manual (revised version)

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# Introduction and course description

The Ministry of Health in collaboration with Management Sciences for Health (MSH) carried out an assessment of the current Part II Drug shops in April-May 2001. The assessment revealed, among other major problems, that sellers of drugs in these outlets either have inadequate or no knowledge and skills required in handling and dispensing drugs. The assessment also revealed that, although Part II Drug shops operate in an unregulated manner and are not evenly spread throughout districts, they are an essential service to the majority of the rural population. Furthermore, since these outlets are restricted to providing only Part II drugs, some of the genuine and basic drug needs of the rural population are unmet.

On the basis of findings from the assessment it was concluded that there was a need to improve access to affordable, quality drugs and pharmaceutical services in retail drug outlets in rural and peri-urban areas where that are few or no registered pharmacies. It is to this end that the Tanzania Food and Drug Authority (TFDA) with technical assistance from MSH has developed a comprehensive programme that includes accreditation of drug dispensing outlets. One requirement of the programme is that all personnel involved with the operation of an accredited dispensing outlet must successfully complete a training program. Therefore, a training programme has been designed for both dispensers and owners.

This manual has been developed as an educational tool for eligible Part II dispensers and owners to become knowledgeable in all aspects pertaining to their responsibilities as a dispenser or owner in an accredited drug dispensing shop (ADDO), now known as Duka La Dawa Muhimu. Upon successful completion of the ADDO dispensers training course, a trainee shall receive an ADDO dispenser certificate. Every owner of an ADDO must successfully complete an owner’s ADDO training course based upon relevant sections of the manual. The authors hope that dispensers and owners will regularly review the contents of this manual and refer to it when necessary to provide their clients with the best possible services

# MODULE 1:

# Legal Requirements and Code of Ethics

1. **Program Overview and General Definitions**
2. **Standards of Operation**
3. **Code of Ethics**
4. **Program Overview and General Definitions**

## PURPOSE:

This session introduces the participants to the ADDO program (accreditation, training and regulations) and provides an overview of the program.This session provides an opportunity for participants to discuss their experiences while working on *Duka la Dawa Baridi* and understand the difference between *Duka la Dawa Baridi* and *Duka la Dawa Muhimu.*

## OBJECTIVES:

## By the end of this session, participants will be able to:

1. Describe the difference between *Duka la Dawa baridi* and *Duka la Dawa Muhimu.*
2. Understands the objectives of ADDO program and its building blocks.

## TIME:

**General Definitions:**

Much of the Tanzanian population purchases pharmaceutical products from small drug shops called *Duka la Dawa baridi* (DLDB), which are licensed to sell only over-the-counter drugs but frequently also sell prescription medicines. Tanzania is served by approximately 339 pharmacies registered with the Tanzania Food and Drugs Authority (TFDA) and more than 4,600 DLDB, or Non pharmacy drug outlets. Seventy-six percent of all pharmacies are concentrated in three urban centers—Dar es Salaam, Arusha, and Mwanza—yet the majority of Tanzania’s population live in rural areas. Approximately 17 percent of the population has access to a registered private pharmacy.

***What is Duka la Dawa Baridi?***

*What is Duka la Dawa Muhimu?*

**Why Do People Use DLDB Instead of Public Health Facilities?**

• Close proximity

• No consultation fees

• Flexible payment methods (e.g., credit, daily dose/daily payment, barter)

• Perception of greater privacy and confidentiality

• Perception that expertise and quality of care are adequate

• High stock-out rates at primary health care facilities

**What Are the Problems with DLDB?**

• Insufficient number of qualified staff

• Lack of drug quality assurance

• High drug prices

• Prescription drugs often sold illegally to meet consumer needs

• Inadequate enforcement of regulations

• Source of drugs is unreliable

**ADDO Program Objective and Building Blocks for an ADDO System**

Using a combination of training, marketing, commercial incentives, inspection, and support strategies, the program seeks to transform DLDB into a regulated system of profitable ADDOs, providing a range of quality drugs and professional services to underserved populations. The building blocks for the ADDO system will be:

• Advocacy

• Selection of pilot districts

• Gathering information and formative research

• Regulatory activities

• Training program for dispensers and shop owners

• Commercial incentives to strengthen and improve profitability

**ADDO Minimum Required Standards**

Aspects of ADDO operations covered include—

• Building design and layout

• Personnel

• Application and approvals procedure

• Sanitation and hygiene

• Training and continuing education

• Drug list-Primary health care drugs not always available in the public sector

• Selected lifesaving drugs such as oxytocin and certain IV fl uids

• Drug quality

• Stock control and handling

• Record keeping

• In particular, ADDOs will be required to account for the purchase and sale of all prescription drugs.

• Shop location

• Inspection and sanctions

• ADDO restricted wholesalers

**Preparing Owners and Dispensers for ADDO Responsibilities**

All ADDO dispensing staff must be accredited through a Pharmacy Board–approved\* dispenser’s course developed by the Muhimbili University College of Health Sciences School of Pharmacy and conducted jointly by the TFDA and MSH. The course provides basic dispenser training on ADDO-approved drugs, common indications and contraindications, common dosages, side effects, patient information, and effective communication skills. Training for owners also provides an understanding of the laws governing dispensing practices, teaches skills in management and record keeping, and discusses pharmacy practice ethics. The Mennonite Economic Development Association (MEDA), which is administering the Microfinance component of the ADDO program, will conduct the business skills and management training. Recertification will be required at intervals through completion of continuing education programs.

**ADDOs: The Role of Regulation**

**Regulation and Monitoring at the Local Level**

Close regulation and monitoring both of accredited drug dispensing

outlets (ADDOs) and nonaccredited drug shops will be required to ensure

that established service and product standards are maintained. Because the Tanzania Food and Drugs Authority (TFDA) does not have the resources to regulate all retail drug shops, local governments, acting on behalf

of the TFDA, will be responsible for routine inspections and reporting on ADDOs and *duka la dawa baridi* (DLDB). However, the TFDA will retain overall responsibility for regulation. For remedial actions and sanctions, local inspectors

will report deviations and findings to a district body composed of health and other government officials, as well as consumer representatives.

**Why Regulation and Monitoring?**

• Previous regulation violations at DLDB (e.g., selling prescription drugs, engaging in clinical practice)

• Prescription drugs will be introduced into shops without pharmacists

• New ADDO regulations need supervision and enforcement

• Need to prevent the sale of prescription drugs in nonaccredited shops

**TFDA’s Role and Limitations**

• Has legal responsibility and authority for all drug regulatory matters

• Has regulatory and inspection staff

• Has the authority to appoint officials and individuals from other bodies to act as inspectors on its behalf (e.g., Regional Pharmacist, Regional Medical Officer)

• Does not have sufficient resources for all regulatory activities (more than 4,600 DLDB nationwide) ü Has fewer than 10 full-time inspectors, and additional, part-time inspectors have other responsibilities competing for their time ü In 2002, inspected just 148 of more than 4,600 DLDB

**Expanding the TFDA’s Inspection Capability at the Local Level**

• Work in partnership with local government and health sector reforms

• Appoint a District Drug Technical Advisory Committee (DDTAC),

consisting of—

ü District Commissioner, chair

ü District Executive Director, vice-chair

ü District Drug Inspector or Regional Drug Inspector, secretary

ü District Medical Officer

ü Four other local government officials

**Session 2:** **Standards of Operation**

## PURPOSE:

## To provide an opportunity for participants to understand standards of operation (SOPs), drug quality and dispensing, records documentation and inspection aspects of Duka la Dawa Muhimu practices.

Also review the Duka la Dawa Muhimu Approved Drug List

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Describe standard operating procedures for personnel, hygiene, store management and record keeping
2. Describe drug quality and dispensing requirements
3. Identify Duka la Dawa Muhimu Approved Drug List
4. Discuss the inspection process and TFDA legal roles

## TIME:

## Standards of Operation

Personnel Training

In the current system, most of the sellers of drugs in DLDB lack the requisite knowledge of handling drugs. The only widely available trained cadre of personnel working as dispensers in the current Part II drug outlets is that of Nurse Assistants. The current requirements according to the Guidelines for Dealings in Part II Poisons are that, the seller (Dispenser) must have basic knowledge of pharmaceutical sciences, medical sciences, veterinary science, agricultural sciences. In the absence of such persons, the Tanzania Food and Drug Authority may approve a suitable person after consultations with other relevant authorities such as the Tanzania Veterinary Board, Tanganyika Medical Council, Tanganyika Medical Training Board, Nurse and Midwives Council and others.

Duka la Dawa Muhimu Requirements in Training

(i) Basic qualifications-every Duka la Dawa Muhimu dispenser should preferably have been trained as:

* pharmaceutical technician
* pharmaceutical assistant
* a nurse
* nurse midwife
* clinical officer
* assistant clinical officer

However, the minimum qualification of the Duka la Dawa Muhimu dispenser shall be a nursing assistant with at least one year training from a recognized institution or as may be required by the Tanzania Food and Drug Authority.

(ii) Additional training:

In addition to the basic training requirements, an Duka la Dawa Muhimu dispenser shall undergo and successfully complete Duka la Dawa Muhimu dispenser training course approved by the Tanzania Food and Drug Authority.

The content and duration of the course shall depend on the minimum qualification attained by the applicant and whether the applicant is Duka la Dawa Muhimu dispenser or owner.

#### Continuing Education

It is important for Duka la Dawa Muhimu dispensers and owners to undergo continuing education so as to keep pace with the rapid changes in the world of science in general and pharmacy in particular.

To this effect all Duka la Dawa Muhimu dispenser and owners shall be required to attend and complete annual continuing education to be organized and approved by the Tanzania Food and Drug Authority or Pharmacy Council.

The continuing education provided shall be mandatory and shall constitute a prerequisite for annual license or permit and their renewals.

#### Personal Hygiene

This is a set of protective measures an Duka la Dawa Muhimu dispenser should exercise to protect him or herself from being contaminated or to contaminate others or pharmaceuticals around him. This include among others, use of handkerchief to cover the nose and mouth when sneezing, coughing; to avoid handling drugs with contaminated hands.

**Good Appearance**

One of the principles embedded in the practice of pharmacy is cleanliness; others are accuracy and politeness. When the dispenser’s appearance to patients is good and attractive, the patients tend to build confidence on the services they will receive from him. If the appearance of the dispenser is shabby the patients would not have trust on whatever service is rendered to them by such a dispenser. The dispenser should put on white professional coat or white dress and avoid working under the influence of alcohol and or illicit drugs.

#### Working conditions and personnel identification

The working environments need to be clean and tidy. This condition again builds confidence and trust of the services provided by the dispenser.

The dispenser is required by law so display his Duka la Dawa Muhimu certificate and wear a name tag bearing his photograph that identifies him as Duka la Dawa Muhimu dispenser. Wearing of this badge again adds trust on the part of the patients served by the dispenser.

#### Contract

Past experience shows that where there is no such contract there has been tendencies on both owners and dispensers to deceive one another. Terms of services of dispensers have been terminated without prior notice; some owners have failed to adhere to remuneration agreements since most of these agreements were made verbally. On the part of dispensers, some/many of them have left the premises without prior notice to the owner, mainly when they get better pay from another proprietor. These incidences have caused a lot of problems to the two parties and more so to the community served. In some cases the business collapsed altogether causing losses to the owners.

Requirements of the law on Contract-The law requires the Duka la Dawa Muhimu owner and dispenser to enter into a contract specifying the terms and condition of service. It is further required by law that a copy of such contract be deposited with the DDTC.

Advantages

The main advantages are:

* Each party is protected by the contract from any deception move
* The contract provides for review of terms of service and remuneration packages
* The contract gives sufficient time for the owner to finding a replacement Dispenser in case the one on post does not wish to continue with the employment
* Generally, the contract provides room for openness and discussion especially in cases of disputes

Premises

#### Location

In the current practice of Part II drug outlets, the location of premises is not given its deserved consideration henceforth; the outlets in many instances have been located in unsuitable places. The location of Duka la Dawa Muhimu premises is important since it may hinder accessibility of its service to the public if improperly located.

#### Duka la Dawa Muhimu Minimum Required Standards for the Premise

* Duka la Dawa Muhimu shop should be located in a place which is far from any building in which alcoholic drinks are sold or taken
* Easily accessible to the members of the community
* Not yet secured by another Duka la Dawa Muhimu shop to avoid congestion and unnecessary business competition
* Priority shall be given to Duka la Dawa Muhimu shop located nearby dispensaries and health centers

#### External and Internal Conditions of Duka la Dawa Muhimu Premises and its Identification.

The External and Internal conditions of many premises in the current practice of Part II drug outlets are not conducive for the nature of the business being undertaken therein. Some of the roofs do leak during rainy seasons, they are not pest-proof and their floors and walls are not smooth for easy cleaning. The rooms in these premises are tiny and again many of them are a single room in which the activities of drug dispensing and storage are carried out. There are, in most of these premises, no provisions of space/room for patient counseling services. Most of their features cannot be differentiated from the shops selling regular commodities.

Minimum Recommended Standards

* The Duka la Dawa Muhimu shop shall be built with strong and durable material capable of preventing leakages and vermin (rodents, birds, and pests).
* The premises shall have enough space and rooms to cater for dispensing, drug storage and patient counseling services.
* It should be lockable with sufficient ventilation means and smooth floor and oil-painted walls.
* The Duka la Dawa Muhimu shop shall have features that differentiate clearly from DLDB with a “NO SMOKING” sign.

Drug Quality and Dispensing

#### Product requirement

Drugs that are required to circulate in the Tanzania market must be registered. Drug registration is done by the Tanzania Food and Drug Authority. The registration process involves a number of steps, one and very important being the verification of the quality of drugs by the Board. Drugs are subjected to analytical and physical tests and upon passing the tests are authenticated for circulation into the market. This process eliminates the substandard and counterfeit products from the market. It is with this background information for which Duka la Dawa Muhimu should purchase, store and dispense registered drugs only.

Packaging of drugs is meant so protect the drugs from the hazards resulting from normal handling. Poor packaging will therefore guarantee the integrity of the drugs. Even if the drugs produced are of good quality, poor packaging will spoil this good character and render the drug into being poor quality drug. Packaging should protect the drugs from moisture light and other hazards.

#### Registered Drugs

Drug registration is the process of authentification of drugs that enter or intended to enter the Tanzania market that they are quality drugs and their attributes recorded by the Tanzania Food and Drug Authority. As aforesaid, drugs are registered in order to assure the consumers of drugs that the drugs are of good quality and on the other hand protect them from taking products (drugs) that are of poor quality, substandard, counterfeit or even dangerous products

#### Dispensing Requirement

Drug dispensing requires that adequate and correct instructions are given to the patient by the dispenser on proper use of drugs.

There are drugs which are in common use easy to use and do not pose great danger to patients lives. These are called “over the counter (OTC)” drugs. They can be sold without the necessity of bearing a prescription by the patient.

#### Prescription Drugs

These are drugs which shall only be dispensed against a written prescription given by a duly qualified medical practitioner, dentist or veterinary surgeon. The prescriptions shall be retained in the premises for which the drugs were dispensed for a period of not less than two years. The name and quantity of each drug dispensed shall be entered in the prescription book.

Record Keeping and Documentation

Records are kept to serve as reference material in cases of problems and as a means of checks and balances on the performance of the Duka la Dawa Muhimu shop. Correct records are as important as the materials (e.g. drugs) themselves thus they should be kept in a manner in which permits easy retrieval of these records.

Types of records:

* invoices and receipts
* drug ledgers
* register of expired drugs
* complaints handling book with respect to drug reactions information obtained from patients
* correspondences in relation to drugs
* inspections records and reports

#### Documentation

Documentation is a process of recording something (e.g. drug particulars) in an official or formal paper, form or book.

 Documents:

* special file for keeping all correspondences related to drugs, directives and services from the regulatory authorities
* Inspector’s Register Book and
* Other Registers.

Reference Materials

The importance of obtaining and keeping reference materials in the premises is similar to that of keeping up-to-date records. Vast knowledge is found in reference materials. No one is capable of remembering every thing he learnt from any set of training. It is therefore very important to maintain an up-to-date set of relevant reference materials all the time. The Duka la Dawa Muhimu owners and dispensers must develop a good culture of buying and using reference materials most frequently.

For the purpose of easy reference and as required by law, each Duka la Dawa Muhimu shop should maintain a copy of the following reference materials:

* Drug use Guidelines for Pharmacy Health care facilities
* Good Dispensing Manual (English and Kiswahili versions)
* Current Pharmacy Laws and Regulations
* Duka la Dawa Muhimu Drug lists
* Current listing of Registered Pharmaceutical products
* Duka la Dawa Muhimu standards and Code of Ethics
* Current listing of Duka la Dawa Muhimu Wholesaler
* Any other references as may be recommended by the licensing authority

It is important to have them for quick reference and accurate performance of drug delivery practice. They are needed for use at any one point in time of Duka la Dawa Muhimu shop viability.

The list above is not exhaustive. It is therefore necessary for the Duka la Dawa Muhimu shop to up-dating the list of reference materials from time to time. One way of keeping the list up-to-date is by keeping in contact with the Tanzania Food and Drug Authority for the latest information concerning drug matters.

#### Duka La Dawa Muhimu Extended Prescription Drug List

The basis for selecting these drugs centers on community need, level of prescribers/dispensers, stability and storage conditions.

General consideration has been made that these drugs will be managed appropriately at these levels and easing the problem of availability of key drugs to the community.

Wholesalers

#### General wholesalers

These are wholesalers registered by the Tanzania Food and Drug Authority as distributors of registered Part I and II drugs. They shall also sell the approved Duka la Dawa Muhimu extended drug list to the Duka la Dawa Muhimu shops.

**INSPECTION**

Inspection is important in ensuring that the established Duka la Dawa Muhimu/DLDB services and product standards are maintained. Since the non-accredited drug outlets are likely to continue with their operations, at least until when the Duka la Dawa Muhimu system is in full operation within a district, it is necessary to inspect these facilities. It is unlikely that the current and projected Tanzania Food and Drug Authority inspection capability will be sufficient to meet the inspection requirements for both Duka la Dawa Muhimu and non-Duka la Dawa Muhimu shops. Thus, a supplementation of the Tanzania Food and Drug Authority resources is required to provide the routine inspections and reporting under the Duka la Dawa Muhimu/DLDB system. The involvement of the four levels of governance is necessary, that is, local, district, regional and national (Tanzania Food and Drug Authority). The inspection and monitoring activities of Duka la Dawa Muhimu/DLDB is therefore meant to be a partnership undertaking.

#### Local level inspection

A sub-committee under the Ward Health Committee will be

responsible for carrying out inspection at the local level of Duka la Dawa Muhimu and non Duka la Dawa Muhimu drug outlets. The inspection and monitoring will be a day to day activity of the sub-committee. The authority for decision making at this level of inspection is delegated to the Ward Health Committee and Ward Development Committee, the latter being the higher authority committee than the former, at this level.

#### District level inspection

The DDTC will receive the inspection reports from all Ward Development Committees and may carry out additional inspection where it deems necessary. The authority for decision making at this level of inspection is delegated to the DDTC.

#### Regional level inspection

This was the lowest level of inspection recognized by the law in the current system. In the proposed Duka la Dawa Muhimu/DLDB system, RDTC may carry out inspection of Duka la Dawa Muhimu and Part II drug shops where it deems necessary. The authority for decision making at this level of inspection is delegated to the RDTC.

#### Tanzania Food and Drug Authority inspection

The Tanzania Food and Drug Authority shall be responsible for inspection and monitoring activities at the national level. The Tanzania Food and Drug Authority may carry out inspection in respect of any premises which provide pharmaceutical services such as pharmacies, Part II Drugs shops and Duka la Dawa Muhimu. The Board is the final decision making body with respect to all drug/pharmaceuticals related matters.

Appointment of Inspectors

In the current system, the inspection involved only the regional and national inspectors, while at the district and further lower levels there are no legally appointed inspectors. As the number of DLDB is very large (estimated to be over 4,000 outlets countrywide) averaging between 30 to 40 outlets per district and taking into account the limited number of inspectors at the Tanzania Food and Drug Authority and Regional level, very few facilities were covered during inspection per year. As most of the facilities were not inspected/not monitored, their services were as well not controlled resulting into high level of non-compliance by almost all DLDB outlets.

#### Powers of the TFDA

* All Duka la Dawa Muhimu and Part II Drugs shops inspectors are appointees of the Tanzania Food and Drug Authority. They are required to receive special Tanzania Food and Drug Authority training course and operational tools such as Identification cards and inspection forms.
* The Tanzania Food and Drug Authority has the power to appoint and withdraw any appointment of an inspector if it feels that such steps are necessary in the public interest and the decision of the Board on this matter is final.

#### Inspectors’ interests

* Inspectors are required to declare their business interests by filling- in an “observation form” provided by the Tanzania Food and Drug Authority before they are appointed as inspectors.
* Inspectors are expected to carry out their duties without prejudices and in a professional and ethical behavior.
* Inspectors are directed to refrain from corruption tendencies.
* Duka la Dawa Muhimu personnel/owner relationship should be that of an employer and employee covered by a written contract.
* Both Duka la Dawa Muhimu personnel/owners should co-operate with the inspectors since they (inspectors) are important partners in the Duka la Dawa Muhimu business and not enemies. They are enforcers of the law who are charged to seeing that rules and regulations are observed in all Duka la Dawa Muhimu operations.

#### Accusations and/or complaints

Accusations/complaints laid against an inspector between him and owner/seller about corruption syndicate will be reported to higher regulatory authority who upon thorough investigation report to the appropriate government organs dealing with issues of corruption.

#### Inspection Procedures

Requirements on how to carry out inspection:

* Inspectors are required to carry out inspection in teams of at least two inspectors and no circumstances permits individual inspection. This conditionality is important on both sides, the inspectors on one hand and the Duka la Dawa Muhimu owners/dispensers on the other hand. The main reasons are:
	+ To avoid bias in the exercise of inspection
	+ To avoid abuse of powers by individual inspectors
	+ It is quite insecure for an inspector to carry out inspection lonely.
	+ Individual inspection may be associated with corruption tendencies.
* It is very important for all Duka la Dawa Muhimu and Part II Drug inspectors to inform (in writing) the local authorities before and after they have conducted the inspection. This act builds trust and rapport to each other.
* Use of TFDA/TFDA) Identification cards adds trust to the Duka la Dawa Muhimu personnel and owners and see that the exercise is authentic and official.
* End of Inspection

At the end of each inspection exercise, the inspectors are required to complete all the required information in the Inspectors’ Register Book and the owner or seller and all inspectors in the team should sign therein.

Report writing and submission

Requirements

The quarterly summary reports of inspectors carried out should be submitted by the Ward Health Committee to the Ward Development Committee. The Ward Development Committee will take actions on matters pertinent to its level and the report will be submitted to the DDTC. The DDTC will act on the reports accordingly and appropriately and shall submit the report to the Tanzania Food and Drug Authority and copies to the RDTC.

#### Duka la Dawa Muhimu Owner/Dispenser collaboration with Inspectors

There is a dire need for the owners/dispensers of Duka la Dawa Muhimu shops to collaborate effectively with the inspectors and vice versa so as to avoid to seeing each other as enemies.

Offences and Penalties

#### Offences

Upon violation of laws and regulation any subject is liable on conviction for punishment under the exact laws and regulation.

*Example:*

Offence Duka la Dawa Muhimu selling drugs which are not registered by the Tanzania Food and Drug Authority.

#### Penalties

The shop may be closed by the Board. Further to it the person in question may be subjected to imprisonment, paying a fine or both.

Duka La Dawa Muhimu Approved Prescription Drug List

The Duka la Dawa Muhimu approved prescription drugs list has been drawn up taking into consideration the prescribing levels in line with the national Standard Treatment Guidelines (STG). A consideration has also been made to ensure that the public get reasonable access to the most essential (key) drugs needed to treat the common diseases found in the community.

**Session 5: Code of Ethics**

## PURPOSE:

Pharmacy practitioners enjoy a special trust and authority based on the professions’ commitment to a code of ethical behavior in its management of patient- centered pharmaceutical care: The inculcation of a sense of responsible professional behavior is a critical component of professional education, and high standards of ethical, conduct are expected of Duka la Dawa Muhimu dispensers.

To provide an opportunity for participants to discuss and become familiar with code of ethics incorporated in ADDO practices.

To stimulate and promote high ethical standards in Duka la Dawa Muhimu dispensers and owners.

## OBJECTIVES:

## By the end of this session, participants will be able to

* 1. Describe the terminologies applicable to basic ethical requirements for Duka la Dawa Muhimu
	2. Identify the categories of ethical problems
	3. Identify Code of Ethics and conduct for Duka la Dawa Muhimu
* Honesty and integrity in the course of discharging duties
* Promotion of Rational Use of Medicines
* Collaboration with other health care providers to improve patient outcome
* Responsibility for maintaining competence
* Adherence to ADDO regulations

## TIME:

**The Code of Ethics**

1. Discharging duties with honest and integrity:

***Honest***: - is telling the truth.

Example: Telling a patient that “I am not going to issue you this because it has already expired. I shall soon get a new stock of the drug”.

***Dishonest:*** - is lying, cheating, stealing.

Example 1: Giving an expired drug to a patient and telling him/her that the drug is from a new stock.

Example 2: Changing the label of an expired drug

***Integrity:-*** is the state of being whole, not divided; being honest and having strong moral principle.

Example: Protecting the territorial integrity of the country.

2 All Duka la Dawa Muhimu service providers shall provide their services in a caring manner.

### You should be very caring for the problems of your patients. Show concern and be ready to help if you can though that might not bring you any financial benefit.

3. Duka la Dawa Muhimu providers shall put patient needs first (i.e. service first) and business later.

In the current DLDB the target is business first, and in some cases sale of unregistered low quality drugs is done with personnel who are not adequately trained to do the job.

4. The Duka la Dawa Muhimu service providers shall:

(a)Be under obligation, and take a high stand in return for the trust given to them by the community.

(b)Respect the autonomy, individuality and dignity of each patient

(c)Acknowledge patient right in participating in decisions related to their health. In many occasions the DLDB does not give the patient the right to know why they are given a particular medicine.

(d)Respect personal, cultural and religious differences and shall not in any way practice any form of discrimination.

This must be taken into account because the health of an individual has nothing to with his religion or his culture. Handle all patients equally

5.Every Duka la Dawa Muhimu service provider shall make sure that patient information is not disclosed to any other person except when agreed upon by the patient or when required by the law.

### For example: When you know that this patient is suffering from HIV/AIDS, gonorrhoea ,TB etc. never tell any person but you can remind him his/her social obligation of not spreading the diseases and however you take any reasonable measures to prevent that happening especially when the affected person does seam to be responsible others or the community.

6.The Duka la Dawa Muhimu service providers must respect the dispensing procedures laid down and shall not issue/ promote or distribute pharmaceutical services which are not of good quality (eg. expired drugs).

They should also never participate in encouraging improper use of drugs (irrational use) ,like giving more drugs than necessary because of financial gains. Furthermore they should respect the service given by other health providers. They should not boast that –They are better than other providers, I am more educated etc.)

7. The Duka la Dawa Muhimu service provider shall be required to communicate with other health care providers to achieve the best results for the patient.

 In the current practice some DLDB will not refer patients or seek advice from others for fear of loosing customers and eventually it is the patient who suffers. It is important to understand that each health care provider has a role to play.

8. Each Duka la Dawa Muhimu service provider shall improve his knowledge on drugs. Drug/treatment changes rapidly due to rapid developments in science.

For example Chloroquine was the drug of choice for malaria, today – Sulphadoxin Pyrimethamine (SP) is the first line anti malarial drug. It is important to update your knowledge on drugs by attending continuing education programs wherever possible. Duka la Dawa Muhimu service providers shall give advice to patient but they should not prescribe as this is outside their responsibilities.

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9. The Duka la Dawa Muhimu owner shall not interfere with the performance of the dispenser; like influencing them to dispense contrary to the rules

For example:

* telling them to dispense prescription drugs without a prescription
* Instructing him to sell drugs that have expired or
* replacing expired drugs into another container

The dispensers should be independent and this will lead to quality service.

10. Each Duka la Dawa Muhimu service provider must advice community on how to use drugs safely, and discourage self medication.

Inform them that; not all disease conditions need drug treatment. For example diarrhea diseases can be avoided by careful hand washing before meals and after visiting toilets and worm infestation can be reduced by drinking boiled water and avoiding eating raw foods

11. Commercial relationship between Duka la Dawa Muhimu providers and health care practitioners can interfere with the quality of service rendered to the patient.

For example if the owner has dispensary and Duka la Dawa Muhimu shop, the likelihood of irrational prescribing increases. When some antibiotics are nearing expiry they might be prescribed and pushed to the patient even if their conditions do not call for such drugs.

# MODULE 2

# Good Dispensing Practice and Drug Quality.

1. Basic Terminologies and Definition in Dispensing Practice
2. Storage Conditions and Stability of Drugs
3. Dispensing Procedures and Practices
4. Record Keeping

**Session 1: Basic Terminologies and Definition in Dispensing Practice**

## PURPOSE:

## The dispensing of pharmaceuticals is a very important aspect of Duka la Dawa Muhimu services. For ADDO dispensers to be effective in dispensing, they need to be familiar with terminology and environment associated with good dispensing practices.

In this session, participants will learn basic concepts and elements of good dispensing practices.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Discuss terminologies, elements associated with good dispensing practices.
2. Describe elements of good dispensing environment

## TIME:

# DEFINITIONS

Read this chapter carefully. It will help you to understand words and technical explanations which will be used later in the manual.

What is a drug?

A drug is a medicine used for the prevention and or treatment of diseases. The term “drug”, “medicinal preparation” or “pharmaceutical preparation” have the same meaning and are often used interchangeably.

Drugs: These are chemical substances which by interacting with biological

systems of the body are able to cure or provide relief or support life. However, drugs are potential poisons, when not correctly used, that is why you should always be careful about the correct use and dose of each drug you give out to patients.

A drug has different names:

#### Brand/Trade name

The name of a pharmaceutical product given by the manufacturer. One drug may have many brand/trade names. It is like different boys or girls who have different names given by their parents, but they are either boys or girls.

**For example**: Panadol, Shelladol and Calpol are brand/trade names, which contains Paracetamol as an active substance.

#### Generic name / Non-proprietary Names

This is the name given to a drug, which will be recognized all over the world. It remains the same regardless of which company manufactured the drug.

***Paracetamol*** is a generic name.

The Tanzania Drugs, Food and Cosmetics Law of 2003 require that all registered products carry their generic names in addition to trade names if any. This makes the necessary recognition of product and their proper use easier. Trade products are in many cases more expensive than generic ones although this may have nothing to do with the quality of the products. There are many factors that contribute to the final price of the product.

#### What is a dose?

A Dose is the amount of the drug taken at a time.

#### What is dosage?

This describes how often a drug has to be taken e.g. every 8 hours, every day, every week or every month etc. When explaining to a patient how to use a drug, state the dosage in terms of hours instead of “one times two or three” but instead say “every 12 hours or 8 hours” respectively.

Dose: The amount of drug given at once time

Minimum dose: The smallest amount of a drug that can give the desired effect.

Maximum dose: The largest amount of a drug that can be used without causing toxic side effects.

Dosage: The total amount of drug given over a period of time

Therapeutic dose: A dose between the minimum and the maximum doses which produces the desired effect without toxic effects.

Toxic dose: **An amount of a drug causing serious unwanted effects.**

#### What is Course of Treatment?

This term describes for how long a drug has to be taken. It gives the duration one has to take the drug for complete treatment or management of the health problem.

#### What is dosage form?

Drugs are produced in factories using different types of equipment and production methods. Therefore drugs are available in different forms; tablets, capsules, injections, powders, syrups, solutions, ointments, creams etc. These forms are called dosage forms. Always read the label of a drug container carefully to understand the right dosage form.

### Drug Allergic reactions

### Allergy is an undesirable reaction specific for some drugs and to some individuals. For example, penicillin formulations have a very wide tendency of causing very serious allergic reactions to some individuals. However there are some individuals who do not get such reactions after taking penicillin products. It is very important for you to ask the patient before you dispense to him/her penicillin products, if he/she has had any

reaction after using the drug.

Side effects: These are the effects of a drug other than those desired. No drug is entirely free from undesirable side effect

BASIC TERMINOLOGIES

#### Manufacturing date

This is the date on which the drug was manufactured. This date expresses also the month and year of manufacturing. Try to understand them as they are important for the quality of the drugs

Expiry date

All drugs must carry expiry dates. This is the date after which a drug is believed to have lost its potency (effectiveness). Some drugs may become toxic due to deterioration and presence of toxic products. This date is determined experimentally by the manufacturer before it is given to a drug.

**Example:**

|  |
| --- |
| TabletsPARACETAMOL500 mgBatch no. 9312101Date of Manufacture: 12/01Expiry Date: 11/06 |

**Never use drugs beyond their expiry date**. You can avoid having expired drugs at your facility by maintaining an effective stock control system and practicing “first expired, first out” (FEFO) to avoid stock expiring on your shelf.

#### What is dispensing?

Dispensing covers all the activities involved from receiving the prescription to issuing the prescribed medicine to the patient.

#### Weight

The weight informs you about the mass of the material. In simple words: how heavy is a certain material. The base unit is the kilogram (kg), in pharmacy practice you will come across the following commonly used units for mass:-

|  |  |  |
| --- | --- | --- |
| **Name** | **Abbreviations** | **equivalent to** |
| 1 kilogram | Kg | 1000g |
| 1 gram | G | 1000mg |
| 1 milligram | Mg | 1000mcg |
| 1 microgram  | Mcg | 0.001mg |

#### Volumes

Volume informs you about capacity. That is what space does a material occupy? for example the content of a bottle. The base unit for volume is the litre (L).

In pharmacy practice you will come across the following commonly used units for volume:

|  |  |  |
| --- | --- | --- |
| **name** | **Abbreviations** | **equivalent to** |
| 1 liter | L | 1000 mL |
| 1 milliliter | mL | 0.001L |

#### What is pharmacy?

Pharmacy: The science of preparing, compounding and dispensing Medicines

Pharmacy is a profession that deals with drugs. While dealing with them, it:

* Renders services to the public through proper selection, procuring, storing, distribution, compounding and dispensing of drug and medical supplies.
* Develops and prepares from natural and synthetic sources suitable and convenient material for treatment and prevention of diseases.
* Makes the public aware about the proper use and the dangers of improper use of drugs.

Water for dispensing purposes:
Potable water

Is normal drinking water, freshly drawn from the public main water supply. If its quality is assured it is suitable for the preparation of pharmaceutical products for oral or external use. If the quality is not assured, you have to boil and cool it before use.

**NOTE**: Most of the domestic potable water available in Tanzania is not suitable for direct preparation of pharmaceutical products.

#### Purified water

Is made out of potable water by different process including deionization, distillation or reverse osmosis to make it purer. If it is not freshly prepared it needs to be freshly boiled and cooled before use in making pharmaceutical products.

#### Water for preparation

May be either fresh potable water or purified water freshly boiled and cooled.

**NOTE:** Potable water, purified water and water for preparations cannot be used for preparation of injections.

What is a prescription?

This is a written and signed order from an authorized/qualified prescriber to a dispenser. It contains instructions to supply /dispense specified medicines to a clearly mentioned patient. It should be clearly written for easy reading and to prevent unnecessary mistakes in interpretation. If a prescription is not written clearly check with the prescriber. Never guess! **All Part I drugs require prescription for dispensation.**

What is compliance with therapy?

Compliance or patient compliance is a measure of the extent to which a patient follows instructions on the use of a drug. These instructions should be given by the prescriber and the dispenser. The better a patient follows the instructions, the higher the compliance. The results of the use of a medicine will be better when compliance is high. Prescriber and dispenser should always aim at high patient compliance.

## DISPENSING ENVIRONMENT

Dispensing environments must be clean because most drug products are taken internally, making it important that they are hygienic and uncontaminated.

The environment must also be organized so that dispensing can be performed accurately and efficiently. The dispensing environment includes;

* Staff
* Physical surrounding
* Shelving and storage areas
* Surfaces used during work
* Equipment and packaging material

Staff involved in dispensing must maintain good personal hygiene and should wear clean protective clothing.

The physical surroundings must be maintained as free of dust and dirt as possible. Although the shop must be accessible to patients, care should be taken to locate it in a protected place and not beside, or open to, a road or other area where dust, dirt and pollution are common.

Maintaining a clean environment requires a regular routine of cleaning shelves and daily cleaning of floors and working surfaces. There should be a schedule for checking, cleaning, and defrosting the refrigerator.

Spills should be wiped up immediately especially if the liquid spilled is sticky, sweet, or attractive to insects and flies. Food and drinks must be kept out of the dispensing area, with the refrigerator used strictly for medicines.

Dispensing environment is used for measuring liquids or counting tablets or capsules. Uncoated tablets normally leave a layer of powder on any surface they touch, which can easily be transferred to other tablets or capsules counted on the same surface. This is called cross-contamination and could be dangerous if the contaminating substance (for example aspirin or penicillin) is one to which a patient is sensitive. It is essential to clean any equipment used for different products, both between uses and at the end of the day.

The dispensing environment must be organized to create a safe and efficient working area. There should be sufficient space to allow for movement by staff during the dispensing process. However the distance that a dispenser must cover during the dispensing process should be minimized to maintain efficiency.

Stock arrangement

Stock container and repacked medicines must be stored in an organized way on shelves, preferably according to dosage forms (for example tablets, capsules, syrups and mixtures) or in a alphabetical order.

All stock containers in use must be clearly labeled to ensure the safe selection of the correct preparation and to minimize the risk of error.

Drugs and other medical supplies should never be placed permanently on floors. This makes cleaning difficult and moisture and dirt may spoil the supplies.

Always use the generic names and not the trade names when you arrange your drugs. If you are not certain about the right generic name from the container, ask for help.

**You are advised to label your shelves:**

The position where you store a specific drug should carry that label in a proper and clear manner so that you cannot be confused when taking medicines from the shelves. It helps you in storing your drugs always in the same place.

Stock rotation

In addition, a system of stock rotation should determine which items are to be used first, on either a first-in/first- out (FIFO) or first- expiry/first-out (FEFO) basis. Nevertheless; always check your new supplies for expiry date. The new supplies may have a shorter expiry date than the old stock. Those that expire first should always be used first.

All drugs must have an expiry date but, if you are uncertain about expiry dates, check with your supplier. You should not use a drug after its expiry date because:

* The drug is no longer as effective:

This is very important, especially with the use of antibiotics. You may not be giving the patient enough dose/strength; this may cause resistance to the antibiotic.

* The drug may become toxic as some drugs breakdown, they form toxic substances, which gradually build up, and become harmful to the body.

Recommended storage conditions relating to temperature, light and moisture should be followed as closely as possible to maintain product quality. Stock bottles must be kept closed except when actually in use. A limited range of preparations will be used with the greatest frequency, and these “fast movers” can be placed in the most accessible areas for the convenience of dispensing.

It may happen that you receive a drug without a label or with incorrect label**. Never guess**, what it is! Do not use it; send it back to the supplier.

**Session 2: Storage Conditions and Stability of Drugs**

## PURPOSE:

Drug and Medical supplies should always be stored in a proper storage space because they are expensive and valuable. If drugs are not properly stored they may deteriorate, lose their potency or develop toxic degradation products that might be damaging to the health of the patients.

## This session…

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Identify factors affecting drug storage
2. Identify basic requirements for good storage of medicines

## TIME:

##  Storage Conditions and Stability of Drugs

Locate a secure room at your facility as a store. This should be a secure storage space where all drugs and supplies can be kept. Windows should have burglar bars and double lock on the door.

The store must be separate from the area where drugs are dispensed.

Factors affecting storage of drugs

* Temperature
* Moisture
* Light
* Bacterial and fungi
* Pests/animals

#### *(i) Temperature*

All drugs are sensitive (affected) to heat, therefore your dispensing area and storeroom must be cool.

The following measures are necessary to protect your drugs from extreme temperatures:

* Make sure there is a ceiling in the store and dispensing area
* Install a ceiling fun or air vents in the store
* If you have a metal roof, this can be thatched, insulated, or painted with white paint to reflect the heat.
* You can open windows during the day to allow air to move freely and ventilate the room
* Use the refrigerator for storage of drugs which require a storage temperature of between 2o and 8oC but do not allow the drugs to freeze, because this may affect drug potency as it is in case of high temperatures. However most of the drugs you are allowed to keep can be stored under normal temperatures.

Never store food or water in the refrigerator together with drugs. They may contaminate each other and it will be more difficult to control the temperature of the refrigerator.

#### *(ii) Moisture:*

There is a lot of moisture in the air, even when it is not raining. If there is moisture drugs may absorb it leading to deterioration.

You should do the following to protect drugs from absorbing moisture easily:

* Store your drugs in dry place
* Keeps drugs in the original packs all the time
* Always put the lid back on the container even if you are going to use the same container later in the day.
* Containers of tablets and capsules often have sachets of desiccant (non-edible drying crystals) packed in them. The desiccant keeps the inside of the container free of moisture. Keep the sachets of the desiccant in the container after you have opened it.
* Get all leaks repaired as soon as possible to reduce moisture and water damage.
* Make sure there is good drainage. There should be drainage channels around the outside of your shop/store and gutters with pipes that run down from the roof. Ventilate your store with windows, secure all ventilation and drainage areas will grills or bars to prevent theft.
* Do not store supplies directly on the cement floor, as cartons might absorb humidity from the floor. Store boxes on planks of wood or crates.

#### *(iii) Light*

Many drugs are affected by light (sunlight). You should always protect you drugs from light by:

* Drugs packed in amber (brown) bottles or vials are light sensitive and should be kept in dark or in the original containers.
* Keep drugs, especially ampoules in closed containers unless you are dispensing them.
* Store sensitive drugs in a dark cupboard e.g. chlorpromazine injection
* Windows in your drug store room should have curtains
* Paint window panes white.

#### *(iv) Bacterial and fungi*

Drugs can be contaminated by bacteria or fungi therefore there is a need to exercise high hygienic standards. To prevent this happening you should:

* Keep containers closed to prevent drugs from becoming contaminated by bacteria, fungi, and dust.
* Keep your dispensing area clean and free of dust
* Wipe your dispensing spoon after dispensing each drug.
* Always wash your hands regularly during dispensing.

#### *(v) Pests/animals*

Keep your store free of pests. Common pests which may damage the supplies in your store are rodents, ants, and wasps. Spilled items like sugary liquids attract ants and rats. They can be eliminated or prevented through:

* Removing any broken or spoiled product in your store, especially the one containing sugar or food components.
* Keeping all bottles and containers closed when not in immediate use
* Cleaning the store regularly by wiping the shelves to clear dust and sweeping and mopping the floor regularly.
* Removing empty cardboard boxes and waste
* Contacting your environmental health officer to obtain pesticide if other measures do not help.

All drugs have storage requirement

Drugs are precious, expensive and sensitive items. They have to be stored in such a way that they remain clean, without any contamination to prevent them from getting bad. Only under good storage conditions they remain safe and of good quality until their expiry date is reached.

 **Session 3: Dispensing Procedures and Practices**

## PURPOSE:

## This session describes the process and procedures of dispensing practices, covering activities from when the prescription is received by a dispenser to issuing prescribed medicines to the patient. Communicating key instructions and recommendations for prescribed medicines is also part of good dispensing procedure.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Identify skills and personal attributes for good and successful dispensing process
2. Describe steps of dispensing process
3. Identify frequently used abbreviations and meanings
4. Identify information required for proper labeling of prescription
5. Discuss key information and instructions required to inform patients about the medicines they are purchasing
6. Describe procedure for reconstitution of dry powders and dilution of liquids

## TIME:

## Dispensing Person

A superficial look at dispensing suggests that it is a process of supplying goods to a patient on the basis of a written order, and that it can be done successfully by **anyone** who can read a prescription, count and pour. As a result, dispensing is often delegated to any staff member who has nothing else to do, who then performs this function without any training or supervision. This situation is irrational and dangerous.

One major difference between supplying medicines and medical supplies and supplying other goods is that with medicines the patient usually does not know the correct use, and is unable to judge the quality of the product he/she receives. Therefore the responsibility for the correctness and quality of medicines supplied lies entirely with the person dispensing them, and the patient always relies on the dispenser’s ability.

In addition to reading, writing, counting and pouring, the dispenser needs additional knowledge, skills and attitudes to complete the dispensing process, including;

* Knowledge about the medicines dispensed
	+ common use
	+ common dose
	+ precautions to be taken while using the drug
	+ common side effects
	+ common interactions with other drugs or food
	+ storage needs
* Good calculation and arithmetic skills
* Skills for assessing the quality of preparations
* Attributes of cleanliness, accuracy and honesty
* Attitudes and skills required to communicate effectively with patients

Dispensing personnel must receive an appropriate level of training. That allows them to correctly dispense the range of medicines prescribed. This is true of the private and the public sectors. Dispensers in community pharmacy shops including DUKA LA DAWA MUHIMU should also be trained in the basics of good dispensing practices and the care of medicines.

## Dispensing Practice

We have tried to explain to you in section one what a prescription is and how it should look like to be legal and appropriate. We also gave you a very short definition of the word dispensing. In this section we are going to inform you about all the important procedures that you should follow when you dispense drugs to patients.

A Properly Written Prescription

It should contain the following information:

* Name of the Health facility
* Date of prescribing
* Name and address of the patient
* Age and/or body weight of the patient
* Name and signature of the prescriber together with professional qualifications eg. ACO, CO, AMO, MD etc
* Name of the drug (preferably generic name), dosage form (tablet, capsule, ointment etc), strength and quantity to be dispensed.
* Instructions for use: how to take the drug, how many times per day, when to use it and any other instructions considered important for the patient to know.

**Examples:**

* One capsule every 8 hours
* Take with or without meals
* Do not use alcohol as long as you are on medication
* Finish all drugs as directed for success of treatment
* Do not drive a vehicle when using this drug.

**Example of a properly written prescription:**

|  |
| --- |
| MARUNGU HEALTH CENTRE NO. 34000P.O. BOX 68 PANGANI  |
| Name: John Kazi Date: 04.04.2002Adress: KivukoniAge: Adult Weight 70 kg |
| Rx1. Co-trimoxazole tablets ii b.i.d. x 5/7
2. Paracetamol tablets ii tds x 3/7

Name of Prescriber/qualifications K. Maneno (MD) Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Frequently Used Abbreviations in Prescriptions and their Meaning

In the table below there are some of the regularly used abbreviations together with their meaning. Nevertheless in some case prescribers use local abbreviations which are not standard and that may not be known to you, in such cases ask for an advice from the prescribers about the meaning of the different abbreviations used in the prescription. **Do not dispense whenever you are not sure of the meaning of the abbreviation written.**

| **Abbreviation** | **Meaning** |
| --- | --- |
| **a.c.** | Take medicine before meals/food  |
| **b.d. or b.i.d** | Twice a day |
| **gt or gtts** | Drop (one) or drops (more than one) |
| **noct. or nocte** | At night |
| **oint.** | Ointment |
| **p.c.** | Take medicine after meals/food |
| **p.o** | Take medicine by mouth |
| **p.r.n** | Take medicine when required |
| **q.i.d** | Four time a day |
| **Stat.** | Take immediately |
| **t.i.d. or t.d.s.** | Three time a day |
| **t.s.p** | Teaspoonful |
| **Occul or occulent** | Eye ointment |
| **p.a.a.** | Apply medicine to affected parts of the body |
| **Rx** | Take |
| **h.s.** | At bed time |
| **i.m.** | Intramuscular |
| **i.v.** | Intravenous |
| **Inj.** | Injection |
| **Tab.** | Tablet |
| **Cap.** | Capsule |

## Basic Dispensing Procedures

If drugs are not dispensed properly to patients, all attempts to correctly prescribe and select the best treatment can be useless.

It is very important to concentrate while dispensing. **Remember not to carry out more than one activity at the same time, because if you do that you are likely to confuse yourself or the patient. If you pick up a prescription complete the whole procedure in filling that prescription before you start anything else.**

Keep your dispensing area and yourself clean, tidy and organized. **An untidy, dirty and unorganized dispensing area is the major cause of confusion and possible dispensing errors.**

Dispensing steps

The consistent and repeated use of good dispensing procedure is very important in ensuring that errors are noticed and corrected at all stages of the dispensing process. The term dispensing process covers all the activities involved, from receiving the prescription to issuing the prescribed medicine to the patient. There are five major areas of activity.

1. Receive and validate the prescription

2. Understand and interpret the prescription

3. Prepare items for issue

4. Record the action taken

5. Issue medicines to the patient with clear instructions and advice.

#### Step 1: Receive and validate Prescription

Upon receiving a prescription, the staff member responsible should confirm the name of the patient. This is particularly important because there is a possible risk that staff or patients may mix up prescriptions. Cross-checking the name and identity of the patient must also be done when issuing the drugs.

#### Step 2 Understand and Interpret Prescription

Interpreting a prescription must be done by a staff member who can;

* Read the prescription
* Correctly interpret any abbreviation used by the prescriber
* Confirm that the doses prescribed are in normal range for the patient (noting sex, weight and age)
* Correctly perform any calculations of doses and issue the right quantity
* Identify any common drug-drug interaction.

It is assumed that the prescription will be in written form. If you have any doubt what is required by the prescriber, you must check with the prescriber. **Checking a prescription may save a life.**

#### Step 3: Preparing items for issue

Preparation of items for issue is the central part of dispensing process, and it must include procedures for self-checking or counter-checking to ensure quality. This part of the process begins once the prescription is clearly understood and quantity has been calculated.

(i) Select Stock Container and Pre-pack:

You must read the container label at least twice during the dispensing process.

 When looking for the correct drug read the label; never pick a drug by looking for

* A particular color label
* A particular size of bottle/container
* A particular shape or color of the drug

This could be very dangerous because many drugs and containers look alike. Secondly the appearance of drugs and containers may change depending on the pharmaceutical company which manufactured them. For example Doxycycline capsule can be yellow or white but all contain the same drug. Read the **generic name** of the drug. This name always stays the same, whereas the trade/brand name changes depending on the company which made it. You should remember this rule when picking up a container for dispensing: **As you pickup a container of any drug, read the label, take out the required quantity, label the patient package and pack the drugs. Before you return the container to its place/shelf, read the label again and refer to the package you labeled. Before handing out the drug to the patient read it again to ascertain yourself. Do these every time you pick up a container, never assume that you know it all by heart? This procedure ensures you that the drug you have taken and labeled is the same**.

(ii) Checking the expiry date and quality of the drug

Once you have found the drug you need, check the expiry date and the quality of the drug.

* When checking the expiry date**,** make sure that you do not confuse the expiry date with the date of manufacture, which may also be on the label.

***Never dispense expired drugs.***

* When checking the quality of the drug, you should look for the following:

- Injections must have no particles or cloudy areas (growth of bacteria or fungi), check that the glass is not cracked; there are no holes in the Intravenous (I.V). Infusion bottle and the seal is not broken.

- Tablets and capsules must not be chipped, cracked, broken or sticky. Check that the smell and color have not changed.

- If you are dispensing a liquid, check that the bottle is not cracked or chipped. Check the color and smell, and look for any unusual cloudiness, or crystal in the liquid or foreign particles.

- When dispensing creams and ointments, check that the tubes are not cracked, and that any large open tins do not contain any growth, have not change in colour and smell and the tube has not hardened.

**Measuring or Counting Quantities from Stock Containers**

(i) Counting of solid dosage forms; (mainly tablets and capsules).

You may have noticed during your daily dispensing work that a high proportion of medicine you dispense consists of tablets and capsules. You spend much of your time counting such medicines. Try to organize this counting activity in a systematic way. This makes your job easier, more efficient and above all ensures accuracy*.***Remember that re-packaging of large quantities of drugs out from their original containers may lead to deterioration of drug quality due to exposure to moisture and other environmental conditions. Re-pack drugs only when you have to dispense them to patients at that moment.**

(ii) Equipment Used in Dispensing Solid Dosage Forms (mainly Tablets and Capsules)

* The simplest or (easiest) way is to use a clean spoon. ***You should never use your hands for counting!***

Using hands is ***a bad dispensing practice*** that is very unhygienic and it carries a high risk of multiple cross-contaminations and even transfer of communicable diseases like cholera, worms to patients etc. **Do you remember how many articles have you touched or hands have you shaken with various fiends up to this time?. Can your hands still be that clean to touch oral products?**

By using a spoon, you simply take medicine with the spoon out of the original container and count on the spoon without touching the medicine. Empty the spoon into the container/bag for the patient.

**Make sure that the spoon is cleaned after every count to avoid cross-contamination.**

You can have several spoons in you dispensing area for that purpose. When you have counted the tablets or capsules, put the remainder back into the container, if any. Check the label once more to see that you have taken the correct drug. Close your container well and put it back on its correct place.

**Measuring of liquid dosage forms (mainly mixtures and syrups)**

You often need to use graduated measures when you dispense liquid dosage forms. These liquids are meant for oral or external use.

Example, syrups are for oral use and liniments are for external use. While working in the DUKA LA DAWA MUHIMU shop, in most cases you may not be required to measure liquids; however you will be required to instruct the patient how to correctly measure required volumes of a given dose as instructed by the prescriber or manufacturer. You should therefore know this well.

(i) Equipment used for measuring liquid dosage forms:

You should be sure that you have the following basic equipment available:

* Graduated measures, cylindrical or conical, preferably with the following capacities: 10, 25, 50, 100, 250 mLs.
* Glass beakers with the following capacities: 50-250 mLs.

(ii) How to measure liquids?

* If you have a choice, use cylindrical measures because they are more accurate
* Choose a measure of a capacity that is closest to the volume you want to measure. This keeps possible errors low. For example if you want to measure 75mL of water, use a measure of 100mL and ***not*** one of 250mL.
* Before you start measuring check very carefully the label on the bottle from which you are pouring the liquid in order to make sure that you are using the right drug. Do this checking twice: first when you collect the bottle from a place (shelf or cupboard) where it is kept and the second time after finishing the measurement. This increases your accuracy of work!
* While pouring the liquid you should hold the bottle with its label in an upward position. In this way the liquid will not run over the label. This method keeps your label clean and readable.
* Check the level of the liquid in the measure horizontally and at eye level to get correct measurements.
* Open the original bottle, transfer (measure) the required volume and close it immediately after that. This prevents contamination of the liquid from the environment.
* Transfer the measured liquid immediately by pouring it into the dispensing container or vessel.
* Thoroughly clean the measuring tool immediately after use.

**Packaging and Labeling of Medicine**

(i) Labeling of Medicine

Before packing the drug you should write the label. It is better to write the label before, counting or measuring the drug. If you are dispensing more than one drug you are less likely to mix up the drugs and write the wrong label. It will also be easier to write clearly without damaging or spilling the medicine.

It is not enough just to tell the patient how to take the drugs(s). By the time he reaches home, he may have either forgotten the instructions or have them mixed up.

It is very important that you attach written labels to the drugs as well as giving verbal instructions. Even if the patient cannot read, it is likely that another member of the family will be able to help.

(ii) What information should be found on the label?

* Name of the patient
* Name of the drug
* Strength of the drug
* Quantity of the drug supplied
* The instructions on how the drug is to be used.

- How much each time

- How often per day

- With or without meals

- With plenty of fluids etc

* Date supplied
* Name and address of the health care facility/DUKA LA DAWA MUHIMU shop.

Written labels must be neat and easy to read. The instructions must be clear so that the patient understands them. Always write instruction in full, avoid abbreviations such as t.d.s. or 1 x 3 only, instead write also every 8 hours etc. on you label.

**Packaging of Medicine**

After writing the label, and measuring or counting the correct quantity of medicine, the medicine should be packed into an appropriate container. It is very important that the correct container is chosen for each drug, as this will ensure that the medicine is kept clean, dry, and free from contamination so that it remains effective.

(i) Packing of solid dosage forms (tablets/capsules)**:**

Packing material for these includes:

* Plastic dispensing bags
* Paper envelopes
* Small sterilized bags (avoid this if possible as they are expensive)

(ii) Packing of liquids dosage forms: (Mixtures/Syrups etc)

Packing of liquid dosage forms is sometimes a problem if dispensing bottles are out of stock. You could get around this problem by:

* Washing and re-using old medicine bottles. If you are re-using old medicine bottles it is very important that they are thoroughly washed with soap and water, and then dried. Once they have been washed, store them carefully with lids on; so that they do not get dusty or dirty. **Do not dispense medicines in soft drink, beer or food bottles etc as children may mistakenly think it’s a normal drink or food.**

#### Step 4: Record Action Taken

Records of issues to patients are essential in an efficiently run DUKA LA DAWA MUHIMU shop. Such records can be used to verify the stocks used in dispensing, and they will be required if there is need to trace any problems with medicines issued to patients.

* When the prescription is retained, the dispenser should sign it and either file it or enter the details in to a record book (prescription/poisons book).
* When the prescription is returned to the patient, details of the medicines dispensed must be entered into a record book (prescription /poisons book) before the items are issued to the patient. Enter the date, patients name and age, the medicine name and strength, the amount issued the prescriber and your name as the dispenser.

#### Step 5: Issue medicine to patient with clear Instructions and Advice

The medicine must be given to the named patient, or the patient’s representative, with clear instructions and any appropriate advice about the medicine. The amount of detailed advice that should be given about possible side effects varies from patient to patient. Verbal advice is important because both illiteracy and poor labeling may be the cause of problems.

Apart from emphasizing the dose, frequency, length of treatment and route of administration, the priority is to give the patient information that will maximize the effect of the treatment. Advice should therefore concentrate on:

* When to take the medicine (particularly in relation to food and other medicines)
* How to take the medicine (chewed, swallowed whole, taken with plenty of water)
* How to store and care for the medicine.

Warnings about possible side effects should be given with care. Common but harmless side effects (nausea, mild diarrhea, urine changing colour) should be mentioned to prevent a frightened patient from stopping the treatment.

Every effort should be made to confirm that patient understands the instructions. Every patient must be treated with respect. The need for confidentiality and privacy when explaining the use of some types of medicine (e.g. suppositories, Pessaries etc) must be recognized***.***

**It must be emphasized that the success of the treatment rests on the accuracy of the dispenser’s communication with the patient. You should understand that dispensing out the drug and counseling are some of the most important aspects of drug dispensing process. Your task is not only to ensure that a patient receives medication, but also to ensure that the patient knows how to use it properly to achieve adequate results from treatment.**

All the efforts that have been invested into pharmaceutical preparations, from the time of production through all the stages of buying and distribution until the point that you dispense the product will be wasted if your patient does not use the prescribed medication in the correct way.

You have to ensure that the use of the medicine is explained to the patient in such a way that he or she fully understands how to use it in the most effective and prescribed manner.

**You should try to follow the following steps to ensure this**

* Call the patient by reading loudly the name written on the prescription. This confirms that the right prescription is dispensed to the right patient.
* For each drug dispensed repeat the instruction on the label verbally you may add any additional information specific for each drug.

NOTE: Always try to ask a female patient if she is pregnant or lactating and check for proper instructions to be given to pregnant women.

* Before you hand the medicines over the patient, you should confirm that your instructions are well understood. You may ask the patient to repeat the essential part of your explanations. If they repeat your instructions correctly you will know that they have understood. This exercise may take some time, but it will considerably increase compliance by the patient.
* Do not forget to give all the necessary information on how to store the drugs safely for them to remain effective. E.g. some drugs have to be stored in cool places just like you do with vaccine and insulin preparations.
* Provide warning to store drugs away from reach of children

Useful Drug Information for Patients

#### (i) How much is to be taken (dose)?

Some people think that if they take more tablets together, they will get better more quickly. This could be very dangerous. You must clearly explain exactly the amount that the patient should take.

#### (ii)How often should it be taken (frequency)?

It is important to explain how many times a day the dose should be taken and how many hours apart they should be taken. The dose taken should be spread evenly throughout the day. For example two capsules to be taken ***every six hours*** instead of simply ***two capsule four times a day (or 2 x 4).***

#### (iii)For how long should it be take (duration)?

Some patients only take their medicines until they feel better. It might not be serious if the treatment was for a minor problem such as headache. However, if the drug was for treatment of high blood pressure or an infection such as blood diarrhea and the patient stops taking the drugs he/she could become seriously ill or the microorganism might become resistant to the drug. Always tell the patient for how many days or weeks he/she should take the medicines, ***and stress the importance of completing the full course of treatment.***

#### (iv) Why are they taking the drug (indication)?

If the patient is told the condition for which the medicine has been given, they will be more motivated to take the medicine as they have been instructed. If a patient doesn’t know why he/she has been told to take a particular medicine, they are unlikely to take it correctly or to finish the whole course of treatment***.* While informing the patient why she/he should take the medicines, bear in mind the need for privacy. It will be embarrassing if a very private problem would be announced openly to the rest of the patients in the counseling room.**

#### (v) What other information does the patient need to know?

* Some medicines work best if they are taken on empty stomach, for example, Amoxycillin taken at least half an hour before meals is better absorbed.
* Antacids e.g. Magnesium trisilicate work best if taken one or two hour before meals.
* Iron and Aspirin tablets may cause gastric irritation and should be taken with food.
* Doxycycline should not be taken together with antacids and iron tablets because they decrease their effectiveness. They should also be taken after meal or during meals.

#### (vi) Drugs with alcohol

Alcohol ***interacts*** with a number of drugs, so patients must be advised accordingly. Forexample, alcohol should not be taken with Metronidazole, Phenobarbitone, Paracetamol, Antihistamines etc.

#### (vii) Side effects of drugs

The patient must be told or warned about the side effects of the drugs given. Example, antihistamines (e.g. chlorpheniramine) may cause drowsiness and if affected they should not drive or operate machinery.

#### (viii) Oral contraceptives

Some drugs such as Antibiotics e.g Ampicillin when taken together with oral contraceptives, renders the oral contraceptives less effective and the patient may get pregnant. Always ask your female patients if they are on oral contraceptives and advise them accordingly.

#### (ix) Drug storage by patient:

\Advise your patient to keep their drugs out of the reach of children. Some drugs which are very brightly colored are very attractive to children.

Reconstitution / Dissolving of Dry Powders

#### How to re-constitute dry powders?

Most of antibiotics/antibacterial preparations like Amoxycillin syrup are supplied in bottles as dry powders because they are not stable in liquid form. You need to add a specified amount of purified water immediately before you dispense it to the patient. The amount to be added is usually indicated on the bottle or label.

Some manufacturers have their bottles marked showing the final level of the reconstituted volume. The following is the procedure for correct reconstitution of powders:

* Disperse the dry powder by first shaking the powders. This disperses any powder lamps in the bottle that would be difficult to disperse if water was added without this step.
* If the volume to be added is given on the label, measure that amount; if only a mark is given on the bottle, you need not measure any volume of liquid
* Now add the water in small volumes, shaking the bottle each time you add a portion of water. Do so until the liquid is homogeneously dispersed in the water.
* Finally add the remaining water to make up to the marked point or to finish the given volume of liquid you had measured.

The reasons why you should add the water in small portions are:

* Dispersion of powder becomes not ease as a lot of gas is trapped in the bottle. If there is a lot of gas in the closed bottle, it may even blow up during the shaking process
* Where only the mark point is given, adding water up to that level will result into adding access water thus diluting the syrup.

#### (ii) How to dissolve powders?

In the treatment of diarrhea Oral Rehydration Salt (ORS) are frequently used. ORS are usually supplied in pre-packed sachets which contain a mixture of salts and sugar, sufficient to make half or 1 liter of ORS.

When you dispense such sachets to patients for use at home, give the following instructions to ensure proper preparation:

* Measure half or one liter of clean boiled and cooled potable water in a clean container or pot.

Tell your patients that the volume of one or two SAFARI beer bottles equals half or one liter respectively.

* Add the contents of one sachet into the water, stir until the liquid is clear and without visible powder particles. The powder is now dissolved.
* Please note that ORS solutions should be used within 24hours. If any of it remains it should be discarded because older solutions may have bacterial growth due to presence of sugar. Prepare larger amounts of ORS only if you are sure that it will be used within 24 hours.

**Session 4: Record Keeping**

## PURPOSE:

## Good record keeping and documentation is vital for Duka la Dawa Muhimu business and performance needs. Record keeping includes financial, inventory and dispensing records regularly maintained and easily accessible fore reference.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Identify type of records needed for Duka la Dawa Muhimu
2. Identify reference materials required by law to be available in each Duka la Dawa Muhimu shop
3. Describe how information collected and maintained at Duka la Dawa Muhimuis used

## TIME:

**Record Keeping and Documentation**

DUKA LA DAWA MUHIMU shop should be required to keep the following records/documentations: All invoices and receipts for non-prescription and permitted prescription drugs.

This is important because once they are required for a certain purpose, they can

 be easily retrieved. These should be kept for at least 2 years

The shop should maintain for each permitted prescription drug a ledger of receipt and issues/dispensation. The ledger should include the following information:

* 1. date received and dispensed
	2. name of patient, drug and quantities dispensed
	3. balance remaining

This important record will enable the DUKA LA DAWA MUHIMU shop to;

* + - Monitor and establish prescription record of every permitted prescription drug and thereby avoiding stock-outs.
		- Identify adverse drug reactions if at all it occurs to patients through the records.
		- \Assist the Pharmacy Board Inspectors when conducting their supervision duties.

This record should be maintained at the premises for two (2) years.

Further more the DUKA LA DAWA MUHIMU shop is required to keep and maintain

* 1. A special file for keeping all correspondences related to drugs directives and services from the regulatory authorities.
	2. An Inspector’s Register Book to be provided by the Pharmacy Board for the purpose of recording all inspections undertaken at the shop.

|  |  |  |
| --- | --- | --- |
|  | **Anti-Asthmatics** |  |
|  | Aminophylline injection (ampoules) | 25mg/mL in 10mL  |
|  |  |  |
|  | **Anti-Bacterial/Antibiotics** |  |
|  | Amoxycillin trihydrate capsules | 250mg, 500mg |
|  | Amoxycillin trihydrate oral suspension | 125mg/5ml, 250mg/ml |
|  | Benzyl Penicillin powder for injection | 3gm (500,000 IU) in vial |
|  | Co-trimoxazole suspension | 240mg/5ml in 100 mL Bottle |
|  | Co-trimoxazole tablets | 480mg |
|  | Doxycycline capsules/tablets | 100mg |
|  | Erythromycin oral suspension | 125mg/5ml, 250mg/5ml. |
|  | Erythromycin tablets | 250mg, 500mg |
|  | Metronidazole tablets | 200mg, 250mg, 400mg, |
|  | Metronidazole suspension | 200mg/5ml in 100mL |
|  | Nitrofurantoin tablets | 50mg, 100mg |
|  | Oxytetracycline Hydrochloride eye ointment | 5% (w/v), 10% (w/v) |
|  | Phenoxymethylpenicillin suspension | 125mg/5ml, 250mg/5ml in 100mL |
|  | Phenoxymethylpenicillin tablets | 250mg |
|  | Procaine Penicillin Fortified | 4g (400,000IU) - 4MU |
|  | Silver sulfadiazine cream | 10mg |
|  | Anti-Inflammatory/Analgesics |  |
|  | Diclofenac sod. Tablets | 25mg, 50mg |
|  | Indomethacin capsules | 25mg |
|  | Hydrocortisone ointment/cream  | 1%, 0.5% |
|  |  Anesthetics, local |  |
|  | Lignocaine injection | 1% in 10ml vial, 2% in 30ml vial |
|  | Anti-Fungal |  |
|  | Nystatin oral suspension | 100,000IU/ml in30mL Bottle |
|  | Nystatin pessaries | 100,000IU |
|  | Nystatin skin Ointment | 100,000IU/gm |
|  | Nystatin tablets | 500,000IU |
|  | **Anti Malarials** |  |
|  | Quinine tablets (sulphate or bisulphate) | 300mg |
|  | Quinine injection (as dihydrochloride) | 300mg/ml in 2mL |
|  | Cardiovascular(Anti-arrhythmic drugs) |  |
|  | Propranolol tablets (Hydrochloride) | 10mg, 40mg, 80mg |
|  |  (Diuretics) |  |
|  | Bendrofluazide tablets | 5mg |
|  | Oxytocics |  |
|  | Ergometrine Injection (maleate) | 0.2mg/mL in 1mL ampoule, 0.5mg/mL in 2mL ampoule |
|  | Oral Contraceptives |  |
|  | Ethinylestradiol (0.03mg) + Novethisterone (0.3mg) |  |
|  | Ethinylestradiol (0.03mg)+ Levonorgestrel (0.15mg) |  |
|  | Anti Emetic |  |
|  | Promethazine Hydrochloride Injection | 25mg/ml in 2mL ampoule |
|  | Fluids and Electrolytes |  |
|  | Dextrose  | 5% |
|  | Normal Saline Injection | 0.9% |
|  | Water for Injection |  |
|  | Anti-Epileptic |  |
|  | Phenytoin tablets/capsules (Sodium salt) | 50mg, 100mg |

# MODULE 3:

# Common Medical Conditions

1. Overview of Disease and Pharmacological Classification of Drugs
2. Malaria
3. Respiratory Infections
4. Diarrhea Diseases and Gastrointestinal Conditions
5. Skin Conditions
6. Eye, Ear, Nose and Throat Conditions
7. Chronic Conditions (Hypertension, Epilepsy and Asthma)
8. Family Planning and Reproductive Health

## Session 1: Overview of Common Medical Conditions and Pharmacological Classification of Drugs.

## PURPOSE:

Diseases affecting living body can be classified into infectious and non-infectious. Infectious disease is that which is caused by a particular micro-organism and can be spread to different people. Non – infectious disease is caused by changes on body functions or physiology.

The Accredited Drug Dispensing Outlet (DUKA LA DAWA MUHIMU) dispenser need to identify this and acquire some basic knowledge on drugs used for proper treatment and general procedures/measures to be taken to prevent diseases.

This session introduces participants to common medical conditions (infectious and non-infectious) in Tanzania. Common pharmacological categories of medicines dispensed by ADDOs as treatment for these conditions will also be discussed.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Identify and define the most common diseases in Tanzania, their symptom and treatment
2. Identify common pharmacological categories of medicines available at Duka la Dawa Muhimu shops
3. Describe routes of administration of medicines; advantages and disadvantages of each method
4. Describe common adverse drug reactions; when to treat and when to refer

## TIME:

## Most Common Diseases

Although the importance in terms of spread of a disease in different parts of Tanzania may be different, they are mostly within the list given below. It may be therefore that in your areas Malaria may not be a number one problem but it is still among the common problem too. You should also note that almost all these diseases are infectious stressing the importance of educating the public on how to avoid them and if contracted they should be treated properly. The most common diseases in Tanzania are:

* + Malaria
	+ Upper respiratory tract infections
	+ Diarrhea diseases
	+ Pneumonia
	+ Intestinal worms
	+ Anemia
	+ Sexually transmitted infections (STI)

In this chapter an attempt has been made to highlight the major disease, briefly describe signs and symptoms and the use of DUKA LA DAWA MUHIMU list of drugs to treat them. Relevant unwanted effects and contraindications are also included.

## Microbial Infection

Microbial infection is a process where by micro organisms (microbes) invade/attack the living body, resulting into tissues, organs damage, and inflammation and even malfunctioning of a physiological system. Micro-organisms include bacteria, viruses, fungi and protozoa.

There are a so many micro-organisms that cause different types of diseases. Micro-organisms are found every where such that in the air, in foods we eat, drinks (such as water, milk), on our skins etc. Micro-organisms are classified depending on their common characteristic and types of diseases they may cause. We will only deal with diseases that can be managed by antimicrobials that are within the approved list for DUKA LA DAWA MUHIMU.

### Bacterial infection

These are common diseases caused by various types of bacteria. The most common infections that are caused by bacteria can be categorized as follows:

* Respiratory Infections
* Gastro-intestinal system infections
* Sexually Transmitted Diseases (STD)
* Eye, Ear, Nose and Throat Infections
* Skin infections

### Classification of Antimicrobials Agents

Antimicrobials drugs may be classified according to the type of organism against which they are active such as:

### (1) Antibacterial – kills or prohibits growth of bacteria. Antibacterial:

These are drug agents that kill or inhibit the growth of infectious micro-organisms.

(2) Antiviral – kills virus

(3) Antifungal – kills fungus

(4) Antiprotozoal – kills protozoa

Mode of Action:

Depending on the mode of action, antibacterial drugs are classified further into two main groups. There are those which destroy the infecting micro-organism by prohibiting growth or multiplication of microbial cells; they are called Bacteriostatic. Common examples within the approved list are tetracycline, Doxycycline and Sulphonamides. The second group includes those agents which destroy micro-organisms by killing the cells; they are called Bactericidal. Common examples within the approved list are the penicillin’s.

### Combination of antibacterial

Sometimes it is necessary to give more than one antibacterial in order to obtain an improved therapeutic effect. This is described as potentiation effect. This combination should be carefully rationally selected otherwise it will result into improper and irrational use of antibacterial. There usually very few situations were combination of antimicrobials can be said to be rational. You should therefore look carefully every prescription where a multiple of antibacterial or antimicrobials have been prescribed. Two very rational combinations which have been approved by WHO are that of Cotrimoxazole, containing sulphamethoxazole and trimethoprim and that of SP, a combination of Pyrimethamine and Sulphadoxin.

### Selection of antibacterial drugs

Before selecting an antibiotic or antimicrobials, two factors must be considered. These are the patient and the causative organism. Factors that are related to the patient which must be considered include history of allergy, renal and hepatic function, resistance to infection (i.e. whether immunocompromised), ability to tolerate drugs by mouth, severity of illness, ethnic origin, age and if female whether pregnant, lactating or taking an oral contraceptive.

Knowing the likely causative organism and its antibiotic sensitivity, in association with the above factors, one will be able to suggest one or more antibiotics, the final choice depending on microbiological, pharmacological and toxicological properties.

As you can see that the situation of the DUKA LA DAWA MUHIMU and your knowledge background, you are not able to make any rational judgment if you were to issue antibiotic without a prescription. The above selection factors clearly limit you to dispense prescription antibiotics and other prescription drugs only based on a fully written prescription. You have all reasons to believe that the one who produced the prescription took into consideration all the above factors before making a decision. However, as a trained dispenser you have the right also to see that that prescription is rational, and if not you have to inquire explanation from the prescriber.

## Disinfections and Disinfectants

Disinfectants, Antiseptics, and Preservatives are chemicals which have the ability

to destroy or inhibit the growth of microorganisms and they are used for this

purpose. Disinfectants are used to treat objects and materials, and for the skin

and other mucous membranes, body cavities, antiseptics are used.

The antiseptics must be capable of preventing septic and must therefore be non

toxic. Preservatives are included in medicinal preparations to prevent spoilage

by bacteria. They are included in oral, topical eye and ear, preparations. There

are many antimicrobials used in pharmacy as antiseptics, disinfectants

and preservatives. Examples include:

* + - 1. Alcohol
			2. Iodine (tincture)
			3. Hydrogen peroxide
			4. Chlorhexidine (ditto)
			5. Phenolics (Lysol)
			6. Eusol (hypochlorite)

**Pharmacological Classification of Drugs**

**Routes of Administration of Drugs**

There are several routes by which the drugs reach the site of action.

|  |  |  |
| --- | --- | --- |
| **Route of Administration** | **Advantages** | **Disadvantages** |
| **Oral route**: The safest and most convenient, where the drugs are taken through the mouth.  | * + Convenience
	+ Acceptability
	+ If the gut is being treated, the drug is placed at the site of action
	+ Quick e.g. sublingual.
	+ Uncomplicated, does not need technical supervision
 | * Gastric irritation
* Erratic absorption, depends the status of the GIT ( with without food, age etc )
* Destruction of drug in the GIT before absorption
* Not all drugs can be taking by mouth.
 |
| **Parenteral:** This is the route of injection. The drug can be injected sub-continuously (s.c) (under the skin) intramuscular (I. M) (into the muscle), intravenous (I.V)) (in the vain) and other routes. | * rapid absorption
* useful in emergencies, when patient is vomiting or unconscious or when the condition is severe
 | * Route is not easy, needs technical expert to administer
* It is painful
* If not properly done may cause serious damage to tissues or even paralysis
* Not acceptable by children even some adults
 |
| **Rectal :** Some drugs are inserted into the rectum to either get systemic or local effect. Drugs usually used for rectum insertion are in the form of suppository or special solutions | * Useful for drugs that are irritant to the stomach, for example Aminophylline, Aspirin, Indomethacin.
* Suitable in vomiting, motion sickness (travel sickness)
* For patient with difficulty in swallowing or unconscious status
* Lack of cooperation (e.g. Sedation in children).
 | * Patient may be embarrassed
* Rectal inflammation may occur if the patient uses the route very often
* Absorption can be unreliable especially if rectum is full of feces.
* Incorrect insertion may lead to poor absorption
 |
| **Inhalation:** Inhalation is taking a drug through the respiratory system by breathing in. It is mostly used to effectively control asthmatic attacks or other serious problems that need immediate effect. Drugs mostly administered through this method are bronchodilators such as Salbutamol although some drugs may be administered this way as well.  | * very effective and fast
 |  |
| Topical application:Drugs are topically applied to get either topical or systemic effect. You should always take care that drugs which are meant for topical treatment are not applied on open skin because it may be absorbed internally and cause serious problem. Drugs containing steroid products for topical application may be absorbed especially when used to children. | * Provision of high local concentration
* Easy to apply, self treatment
 | * Skin irritation
* Drugs for topical use only may be absorbed
* Uncertainty of absorption for drugs meant to produce systemic effect
 |

## Drug Reaction-Allergy

Generally allergy is a reaction acquired through exposure to a provoking substance. This provoking substance is referred to as antigen or allergen. For allergy to occur, an individual must be previously exposed to the allergen. For example for somebody to get reaction after using say a drug like SP he/she must have used SP or any sulphur containing compound/drug once in the past. If he/she takes SP or any sulphur containing compound/drug in the second time a serous allergic reaction may result.

This is why, it is very important to always ask your patients if they had taken a drug such as SP or co-trimoxazole before and how many times and if they have had any time of reaction, even a minor one. The answers provided can help you to provide a correct advice to the patients.

## Introduction to Pain and Inflammation

Pain may be defined as the sensory and emotional experience associated with actual or potential tissue damage. It may be a characteristic sign of a disease. The nature of a pain may help in the diagnosis of underlying condition. The location of a pain may indicate the part of the body affected.

#### Symptoms

 Pain varies in severity from mild to severe. It may appear at a certain time of the day or night or be continuous for some, hours. Patient is characterized by stabling, crushing, burning or stabbing pain. Approximately one-third of the patients that seek medical help do so because of primary complaint of pain. Pain may be acute or chronic depending on occurrence time, intensity and duration or its repeated ness.

### Inflammation:

Inflammation is a non- specific reaction of tissue or organ as a response to a disease process, allergy or physical trauma (injury). It is a very important physical sign of many forms of disease particularly those in which tissue damage occurs. Inflammatory processes may involve the blood vessels, connective tissues or organs. Depending on the extensiveness of the process and the repeated ness of the process inflammation may be characterized as acute or chronic.

Signs or symptoms of inflammation include:

* Swelling-oedema due to liquid accumulation
* Redness-or heat.
* Loss or impairment of function
* Scaring-skin irritations
* Pain

**Treatment**

Simple inflammatory reactions can be managed with simple essential drugs which usually have two functions. They reduce the pain an inflammation through special reaction with inflammatory agents (substances within the body which cause inflammation).

## Antipyretic (fever reducing), and Analgesic (pain reducing) and Anti-inflammatory Drugs

For such conditions drugs that can used for first management of such conditions should be **Non-Steroidal Anti-Inflammatory Drugs. (NSAIDS).** **This group of drugs include Aspirin, Paracetamol, Ibuprofen Indomethacin and Diclophenac**. They should be used cautiously in pregnancy, the elderly, asthmatic patients, patients with renal/liver impairment. They should be avoided in patients with peptic ulcer and should be taken with food. Below each drug is explained separately.

* **Aspirin**
* **Paracetamol**
* **Ibuprofen**
* **Indomethacin**
* **Diclophenac**

*Aspirin (OTC)*

**Presentation**

* 300mg tablets

**Indication**

* Light to moderate pain
* Light to moderate fever
* Alternative to Paracetamol

**Dosages (for children and adults**

* 5 years not recommended
* 6 – 12 years 150 – 300mg every 6 hours
* Adult 300 – 1200 mg every 6hours max. 4g/24hours

**Precautions**

* Not to be given to:

-patients with epigastric pain

-peptic ulcer

-asthmatic

-children under 6 years

**Side effects**

* Stomach pain
* Occult blood loss
* Nausea
* Vomiting and allergic

**Vital information to the patient**

* Take the drug with food and water
* If it smells strongly like vinegar, do not take them
* Store in a dry place and away from reach of children

*Paracetamol (OTC)*

**Presentation:**

* 500mg tablets
* 120mg/5mL syrup

**Indication:**

* Light to moderate pain
* Light to moderate fever
* Alternative to Aspirin

**Dosages (for children and adults)**

* Children 2.5 – 10 mL every 8 hours
* Adult 500mg – 1000mg every 6-8 hours max. 3g/24 hours

**Precautions**

* Avoid giving patients with liver-kidney diseases
* Avoid giving to alcohol addicts

**Side effects**

* Rare

**Vital information to the patient**

* Store the drug away from reach of children
* If pain persists go for medical advice

*Ibuprofen (OTC)*

**Presentation:**

Tablets 200mg and syrup 100mg/5mL

**Indication:**

Pain and inflammation in rheumatic disease, dysmenorrhoea, fever and pain in children

**Dosage (for adult and children)**

**Adult:** 200 to 400mg every 6 to 8 hours per day.

**Children**: 1-2 years 2.5 mL every 6 to 8 hours per day

 3-7 years 5mL every 6 to 8 hours per day

 8-12 years 10mL every 6 to 8 hours per day

**Precautions**

- History of gastro-intestinal diseases, hepatic and renal impairment, gastro-intestinal ulceration or bleeding, history of hypersensitivity to aspirin

**Side effects:**

Gastro-intestinal discomfort, nausea, diarrhea occasionally bleeding and ulceration

**Vital information to the patient:**

Do not any other NSAID while taking this drug; keep away from children?

*Indomethacin (OTC)*

**Presentation:**

Capsules 25mg; suppositories 100mg

**Indication:**

Pain and moderate to severe inflammation in rheumatic disease and other acute musculoskeletal disorders; acute gout; dysmenorrhoea

Dosage ( for adult and children):

**Adult:**

- rheumatic disease 50 – 200mg daily in divided doses

- Acute gout 150-200mg daily in divided doses

- suppositories 100mg at night

**Child:** Not recommended

**Precautions/Contraindications**

As for Ibruprofen

**Side effects:**

As for ibuprofen

**Vital information to the patient:**

As for ibuprofen

*Diclofenac*

Presentation:

Tablets 25 mg; 50mg; 100mg

Injection 75mg/mL Ampules

**Indication:**

Severe pain and inflammation in rheumatic disease, other musculoskeletal disorders, acute gout and postoperative pain.

**Dosage ( for adult and children)**

**Adult:**

50 to 150 in 2-3 divided doses per day. Total daily dose by any route should not exceed 150mg

**Precautions**

See under previous NSAIDs above.

**Side effects**

As for other NSAIDs

**Vital information to the patient:**

As for Ibuprofen, take with food or after meal with plenty of water

**Nutritional Supplements**

## The ADDO list of drugs contains several nutritional supplements for the treatment of nutritional related disorders such as anemia and vitamin deficiencies. Dispensers need to be familiar the appropriate treatment for common nutritional disorders and recognize the signs and symptoms that require referral to higher health facility.

### Haematological supplements

Anemia is a state in which the level of hemoglobin in the blood is below the expected value for age and sex. Anemia may be due to blood loss, haemolysis (excessive breakdown of cells) or decreased production of red blood cells. The aim of treating iron deficiency anemia is to remove the cause and to increase red cell mass by giving iron. Iron may be given orally or by injection.

#### *Treatment:*

Ferrous sulphate: Tablets/syrup

Fefol tablets: contain both ferrous salt and folic acid for use in pregnancy.

Adult: Ferrous sulphate: tablets 200mg three times a day

Children: Syrup 1 tea spoon three times a day

Unwanted effects: gastrointestinal disturbance.

Folic acid: tablets

Adult: 5 mg daily

In iron deficiency anemia continue for three months after the normal hemoglobin has been achieved.

### Vitamin Deficiencies

#### Vitamin A deficiency

It is the most serious nutritional disease in developing countries. It is usually associated with protein energy malnutrition and measles infections. Features of vitamin A deficiency include night blindness.

#### Treatment:

Adult: vitamin A 200,000 orally on day 1, 2,7,14

Infants: vitamin A 100,000 orally on day 1, 2,7,14

### Vitamin D deficiency:

### Features:

Rickets is a disease of bones in infants and children. (Requires vitamin D and sunlight).

Uses: in vitamin D deficiency due to inadequate diet, malabsorption or repeated pregnancies. In osteomalacia (bone resorprtion) caused by anticonvulsant drugs and in rickets.

Unwanted effects:- Hypercalcaemia (increase in blood calcium )

Precautions: patients on phenytoin.

#### Treatment:

Prevent deficiency by exposing to sun

Ergocalciferol 1000-5000 iu per day for 2 weeks and follow up this with 400 14 day for 2 months.

### Thiamine Deficiency:

Thiamine (B1) deficiency leads to beriberi. In Tanzania beriberi is commonly caused by consumption of highly milled cereals or in food containing thiamine’s (anti thiamine factors) and in alcoholics.

#### Treatment

Thiamine 5-25 mg in every 12 hours for 3 days followed by the same dose orally for four weeks.

**Riboflavin Deficiency:**

Features: Sore throat, angular stomatitis, anemia

Treatment: Vitamin B complex: 1 tablet every 8 hours for 1 month.

Pyridoxine Deficiency:

#### Features

As in riboflavin deficiency may occur during isoniazid therapy.

#### Treatment

Pyridoxine 50mg every 8 hours until recovery.

For isoniazid induced B1 deficiency replace isoniazid with ethambutol.

### Ascorbic acid Deficiency: Scurvy

#### Features

Swollen, purple and spongy gums which bleed easily. Hemorrhage may occur in other sites.

#### Treatment

Ascorbic and 100 mg orally every 8 hours until maximum of 4 g and then 100mg orally for one month.

**A diet rich in vitamins should be administered.**

## Session 1: Malaria

## PURPOSE:

Malaria is still the most common dangerous disease in Tanzania. It ranks number one in terms of morbidity and mortality. The goal of appropriate malaria diagnosis and treatment is to reduce mortality, morbidity and social economic losses.

ADDOs are uniquely positioned to provide good quality malaria treatment because the majority of the population first seeks care for malaria in Duka la Dawa Balidi or ADDOs.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Recognize signs and symptoms of complicated and uncomplicated malaria
2. Identify appropriate treatment for malaria for each age group
3. Recognize the signs and symptoms that require referral to higher health facility

## TIME:

### Introduction to Malaria

The purpose of this guide to the Management of *Malaria at Health Center and Dispensary Level* is to promote prompt, effective and safe treatment of malarial disease whenever it is encountered at these levels.

The guide has been adapted from the *National Guidelines for Diagnosis and Treatment of Malaria*, published by the Ministry of Health in November 2000.

In recent years there has been a rapid development and spread of parasite resistance to the previous first line anti malarial drug Chloroquine. Studies in Tanzania indicate that the total Chloroquine treatment failure is now 52%. These findings prompted the Ministry of Health to change the malaria treatment guidelines.

Of the drugs available now, **Sulfadoxine/Pyrimethamine (SP)** fulfils best the requirements for efficacy, safety, affordability and availability. **SP** will replace Chloroquine in drug kits supplied to government facilities through MSD. As there will be instances where SP will not be recommended, Amodiaquine and Quinine will also be provided in drug kits at levels previously supplied with Chloroquine alone.

The following anti malarial drugs are therefore recommended for the treatment of malaria in Tanzania.

|  |
| --- |
| * The first lien drug is Sulfadoxine/Pyrimethamine
* The second line drug is Amodiaquine
* The third line drug (where Sulfadoxine/Pyrimethamine and Amodiaquine have failed or are contraindicated) is Quinine
* The drug of choice for the treatment of severe malaria is Quinine
 |

## Recognizing and Assessing Malaria

### Uncomplicated Malaria

Patients with uncomplicated malaria usually present with fever, chills and profuse sweating. The clinical features of malaria infection vary considerably according to the species of the parasite present, the patient’s state of immunity, the intensity of their infection and the presence of condition such as malnutrition, anemia or other diseases.

Fever is the most common feature of malaria. It may persist for several days, accompanied by headache, aching joints and general discomfort. In infants the early signs and symptoms of malaria may be quite variable and hard to recognize. They may be limited to poor appetite, restlessness and loss of normal interest in the surroundings. Children may present with a cough and/or diarrhea.

Patients who have received no or inadequate treatment may continue in poor health for several weeks or months. Anemia, weakness and febrile episodes are characteristic of these cases. Anemia is a major cause of the morbidity and mortality associated with malaria especially in young children and pregnant women. It is important to look for anaemia in patients and to remember that malaria infection might be the cause.

### Features of uncomplicated malaria

|  |  |
| --- | --- |
| FeverHeadacheSplenomegaly (enlargement of spleen)Nausea and vomitingChest painIrritability | Body weaknessJoint painCough (in children)Abdominal pain and diarrhoeaPoor appetite |

## Severe Malaria

Severe P. falciparum malaria is a medical emergency. Delay in diagnosis and provision of appropriate treatment especially in pregnant women, infants and small children may lead to serious complications and death. One or more of the following features indicate severe malaria.

### Features of severe malaria

|  |  |
| --- | --- |
| ConvulsionsBehavioral changesSevere anaemiaHaemoglobinuriaExtreme weaknessHypoglycemia | ComaAcute renal failureShockJaundiceBleeding tendencyAcidosis |

## Assessment of patients

The assessment of any sick patient will depend upon the respurces available to a clinician.

In health facilities without laboratory services diagnosis is based on signs and symptoms.

A detailed history should be obtained for every patient. This combined with a thorough physical examination, should then guide differential diagnosis, management and treatment.

In order to provide satisfactory carte for patients in whom malaria is suspected the Integrated Management of Childhood illness chart (appendix i) and the algorithms for assessment and treatment of a patient with suspected malaria (appendix ii & iii) should be applied. /they detail questions, decisions and actions that are required when a patient is seen.

## Treatment of Uncomplicated Malaria

|  |
| --- |
| The objectives of treatment of malaria are to:* Provide rapid and long lasting clinical cure
* Reduce morbidity including malaria related anaemia
* Halt the progression of simple disease into severe and potentially fatal disease.
* In order to achieve these objectives uncomplicated malaria must be diagnosed early and the correct treatment administered without delay.
 |

Treatment of uncomplicated malaria with first line drug:

Sulphadoxine /Pyrimethamine (SP)

|  |
| --- |
| Dose: Treatment with Sulfadoxine/Pyrimethamine SP should be given as a single dose of 25mg/kg body weight of the sulfa component. |

Dosage schedule for treatment of uncomplicated malaria using Sulfadoxine 500 mg + Pyrimethamine 25 mg (SP) tablets

|  |  |  |
| --- | --- | --- |
| Age(years) | Weight(kg) | SP tablets as single dose |
| 2 up to 4 months | 5 up to 7 | ¼ |
| 4 up to 12 months | 7 up to 11 | ½ |
| 1 up to 5 | 11 up to 19 | 1 |
| 5 up to 9 | 19 up to 30 | 1 ½ |
| 9 up to 14 | 30 up to 45 | 2 |
| 145 and above | Over 45 | 3 |

#### Treatment of Fever

SP is effective in clearing parasitaemia but it has little anti-pyretic action so it produces a less dramatic clinical cure than that which used to be associated with Chloroquine.

Patients with fever should be given an anti-pyretic drug like Paracetamol (see table) or aspirin. Children below 12 yrs should not be given aspirin because of the risk of developing severe side effects.

Dosage schedule for Paracetamol, 500 mg tables.

(child dosage: 10 mg/kg/BW)

|  |  |  |
| --- | --- | --- |
| **Age (years)** | **Weight (kg)** | **Dose** |
| 2 mo up to 3 yrs | 4 up to 14 | ¼ |
| 3 up to 5 | 14 up to 19 | ½ |
| 5 up to 10 | 19 up to 35 | 1 |
| 10 up to 14 | 35 up to 45 | 1 ½ |
| **14 and above** | **Over 45** | **2** |

Management of non-response to malaria treatment with SP

Where a patient returns within 4 to 14 days after treatment with SP, complaining of continued symptoms of malaria, non-response should be considered and the following recommendations followed after a full history and examination (see algorithms):

Where laboratory facilities are not available and malaria is still suspected, treatment with Amodiaquine should be started immediately with strick follow up

Where laboratory facilities are available, a blood smear should be started and treatment failure recorded. If parasites are not found other causes for the symptoms must be sought and treated accordingly

If no other obvious causes are found a blood smear should be repeated after 6 hours and follow up continued

#### Treatment of uncomplicated malaria with second line drug:

**Amodiaquine**

|  |
| --- |
| Dose: Treatment with Amodiaquine should be given at a total dose of 25 mg/kg over three days. |

Dosage schedule for treatment of uncomplicated malaria using Amodiaquine tablets 200mg, over three days

|  |  |  |
| --- | --- | --- |
| **Age****(years)** | **Weight****(kg)** | **Number of tablets of 200 mg base** |
| **Day 1****10****mg/kg** | **Day 2****10****mg/kg** | **Day 3****5** **mg/kg** | **Total tablets** |
| **Up to 4 month** | **5 up to 7** | **¼** | **¼** | **¼** | **¾** |
| **Up to 12 months** | **7 up to 11** | **½** | **½** | **¼** | **1 ¼** |
| **1 up to 3** | **11 up to 15** | **¾** | **¾** | **¼** | **1 ¾** |
| **3 up to 5** | **15 up 19** | **1** | **1** | **¼** | **2 ¼** |
| **5 up to 8** | **19 up to 25** | **1 ¼** | **1 ¼** | **½** | **3** |
| **8 up to 11** | **25 up to 36** | **1 ½** | **1 ½** | **1 ¼** | **4 ¼** |
| **11 up to 14** | **36 up to 50** | **2 ½** | **2 ½** | **1 ¼** | **6 ¼** |
| **14 up to 16** | **50 up to 60** | **3** | **3** | **1 ½** | **7 ½** |
| **16 and above** | **Over 60** | **3** | **3** | **2** | **8** |

Non response to treatment with Amodiaquine

Patient with persistent symptoms at follow up should be fully assessed in order to exclude other possible causes. Where blood smear microscopy reveals persistent parasitaemia and in cases where it is not possible to rules out malaria treatment with oral quinine should be started (see algorithms in appendix ii & iii).

Treatment of uncomplicated malaria with third line drug: oral quinine

|  |
| --- |
| Dose: Treatment with oral quinine (salt) should be given for 7 days at a dose of 10 mg/kg every 8 hours. |

Dosage schedule for treatment of uncomplicated malaria using oral quinine salt tablets 300mg

|  |  |  |
| --- | --- | --- |
| **Age****(Years)** | **Weight****(kg)** | **Number of tablets****(300mg salt)** |
| **Up to 12 months** | **5 up to 11** | **¼** |
| **1 up to 5** | **11 up to 19** | **½** |
| **5 up to 8** | **19 up to 25** | **¾** |
| **8 up to 11** | **25 up to 36** | **1** |
| **11 up to 14** | **36 up to 50** | **1½** |
| **14 up to 16** | **50 up to 60** | **1 ¾** |
| **16 and above** | **Over 60** | **2** |

**Session 3: Respiratory Infections**

## PURPOSE:

Like malaria, respiratory tract infections are responsible for high rates of morbidity and mortality in Tanzania, especially among children under five years of age. This session introduces participants to common causes of respiratory infection and appropriate treatment needed.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Identify common signs and symptoms for respiratory tract infections
2. Identify appropriate treatment for respiratory tract infections
3. Recognize the signs and symptoms that require referral to higher health facility

## TIME:

**Respiratory Infections**

### Pneumonia

**Brief description of the medical condition (to include cause):**

Pneumonia is inflammatory of lungs with the production of exudates, which causes consolidation. Most cases of pneumonia are due to infection with bacteria. Some bacteria are capable of invading the lungs while others can do so only when resistance to infection is lowered (opportunistic infection).

#### Presentation-Symptoms and Signs:

**Treatment (in relation to drugs available in the expanded ADDO list):**

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

#### Common Cold

**Brief description of the medical condition (to include cause):**

Common cold – infective rhinitis – is caused by many rhinoviruses infection of the nose, nasopharynx and upper respiratory tract. However other viruses such as corona viruses can also be responsible.

Infection spreads rapidly, especially in crowded conditions, via droplets which may be inhaled directly or passed indirectly on fingers. Hand transmission is very significant for this type of disease. Children are more affected and may several episodes per year.

#### Presentation-Symptoms and Signs:

The incubation period is 1 to 4 days. The on set is abrupt and is characterized by discomfort in the eyes, nose, and throat, with nasal congestion and discharge. There may also be sore throat and cough. Mild fever occasionally occurs in children, but very unusual in adults. There is usually complete recovery within 4 to 10 days of onset, if there are no complications.

**Treatment (in relation to drugs available in the expanded ADDO list):**

Unless there are signs of secondary bacterial infection, the treatment is symptomatic and may include, non-opioid analgesics (aspirin, Paracetamol), systemic decongestants (pseudoephedrine or ephedrine hydrochlorides) or nasal decongestants of the same products above and antitussives such as codeine.

The value of this therapy is doubtful especial when the infection is viral, however some relief is provided to the patient. Nevertheless, it is very important to remember that decongestant preparations should be avoided in patients with hypertension, hyperthyroidism, coronary heart diseases, diabetes and patients taking monoamine oxidase inhibitors (be careful for patients taking antidepressants). Many such products also contain antihistamines which may cause drowsiness and affect ability to drive or operate machinery. Patients should be warned against this.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

### Cough

**Brief description of the medical condition (to include cause):**

Coughing arises through a defective reflex mechanism caused by the stimulation of receptors in the upper respiratory tract by irritant substances (dust, foreign bodies, mucus, or smoke). It is characterized by forced expiration against a closed glottis, which opens suddenly to expel air and unwanted substance from the lungs. It is a symptomatic of different underlying disorders such as asthma, brochiectasis, bronchitis, lung cancer, heart failure, pneumonia, and tuberculosis. Usually it is self-limiting if it is a minor infection or irritation.

#### Presentation-Symptoms and Signs:

Dry cough is characterized by the absence of sputum, may be irritating, hacking, short, and repetitive or harsh, hoarse and painful (croup) when associated with laryngitis. Any appearance of sputum, which may be clear to white or yellowish-green and offensive, is a sign of infection.

**Treatment (in relation to drugs available in the expanded ADDO list):**

Treatment involves the administration of cough suppressants (preparations containing codeine or the like) to control dry cough, demulcents (preparations containing ammonium chloride, ipecacuanha and squill) for their smoothing action on the pharyngeal mucosa and expectoration, resulting into increased bronchial secretions and thus facilitate the expulsion of tenacious mucus. Water is of great value in treating dry and productive cough if taken orally or inspired humidified air. If the problem is prolonged, the possibility of underlying disorder should be considered.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

## Session 4: Diarrhea Diseases and Gastrointestinal Conditions

## PURPOSE:

* Acute Watery
* Persistent chronic diarrhea
* Bloody Diarrhea

## OBJECTIVES:

## By the end of this session, participants will be able to

* Describe signs and symptoms of acute watery diarrhea and its complications
* Describe the use of ORS in the management of diarrhea diseases
* Identify common causes of helminthes/worm infestation and their presenting complications
* Identify appropriate treatment for helminthic/worm infestation
* Recognize the signs and symptoms that require referral to higher health facility

## TIME:

**Diarrhea Diseases**

Diarrhea is an increased abnormal frequency and fluidity of defecation. Diarrhea can be in acute form, this is due to food poisoning, bowel infection (bacterial, viral, or parasitic) or toxins. Diarrhea can also be chronic; this is due to mal-absorption, malignant disease, protozoa or occasionally worm infections, change in intestinal motility or use of some drugs. . It is important to know the age of the patient. Very old and very young individuals are susceptible to the effects of dehydration due to diarrhea.

#### Acute Watery Diarrhea

Cholera

**Brief description of the medical condition (to include cause):**

This is a notifiable disease

Cholera is an acute infection of the bowel caused by *Vibrio cholerae*. Pandemics occur periodically In Tanzania. The only known reservoir of infection is man, and transmission occurs via faecal-contaminated drinking water or shellfish harvested from contaminated water. It is also possible that flies transfer bacteria from faeces to food.

#### Presentation-Symptoms and Signs:

The onset is rapid, and characterized by large volume of white mucous, odorless, isotonic stools (rice water stool) which may be followed by vomiting, and muscle cramps. Mild cases may start to resolve after 3 to 12 hours, but in severe cases, further symptoms include intense thirst, cyanosis, exhaustion, hypothermia, hypotension and tachycardia and reduced skin turgor. Progressive fluid losses will result in severe dehydration, hypovolaemia, and metabolic acidosis and may prove rapidly fatal in about 50% of untreated cases. Convalescent patients continue to excrete vibrios in the faeces for 1 to 3 weeks. This may result into spread of the disease if strict control is not done

**Treatment (in relation to drugs available in the expanded ADDO list):**

Management of **d**ehydration:

There is complete recovery in almost all patients timely receiving adequate oral or intravenous electrolytes and water replacement therapy. The use of appropriate antibiotics may be necessary to reduce severity of illness, volume of diarrhea and duration of illness

#### Antibiotic Treatment:

Where there is an emergence of resistant strains, laboratory tests on culture sensitivity should be done before any use of antibiotic is recommended.

#### Tetracycline and Doxycycline (PMO):

Presentation: Tetracycline-capsule 250mg or Tablet 250mg; Doxycycline-capsule 100mg or Tablet 100mg. These are broad spectrum antibiotic for treatment of cholera.

**Dose (Adult and Child)**

For adult only or child above 12 years 5mg/kg body weight or 300mg as a single dose.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

Precautions/Contra Indications:

* Should not be given to children under 12 years ( causes tooth discoloration and bone retardation)
* Should not be given to pregnant or breast-feeding women
* Absorption is decreased by antacids, calcium, iron and magnesium salts

**Side Effects:**

Gastro-intestinal irritation, nausea, diarrhoea, skin changes and rush due to sunshine on the skin. Try to avoid direct sunlight during the course.

**Vital Information to Patient:**

* complete the whole dose, otherwise treatment may fail
* Not to take it with antacids, calcium, iron or magnesium containing salts
* Take the drug after food (do not take it with an empty stomach
* Take the drug with plenty of fluid while in an upright position

#### *Co-Trimoxazole (POM):*

**Presentation:**

Sulphamethoxazole 400mg and Trimethoprim 80mg tablets; Sulphamethoxazole 200mg/5mL and Trimethoprim 40mg/5ml suspension.

#### *Indications:*

Alternative in Children for the treatment of Cholera. Upper respiratory tract infections like bronchitis; uncomplicated urinary tract infections; gastro-intestinal infections like salmonella infections

#### *Dosage ( Adult and child)*

Cholera: 48mg/kg body weight/24 hrs in two divided doses for 3 days.

Other Infections: depends on the type of infection. Usual doses are:

Adult: 960mg every 12 hours for 5 to 7 days

Child: ½ to 5 years 240mg/5mL every 12 hours

6-10 years 480mg/10mL every 12 hours

Over 12 years as for adult.

#### *Precautions/Contra Indications:*

* Do not use in patients with known allergy to Sulphonamides or trimethoprim
* Do not use in patients under the age of 6 months
* Do not use in patients with serious liver/kidney diseases
* Do not use during pregnancy
* Use with caution during breast-feeding
* Use with caution in AIDS-patients – they experience high incidences of serious reactions particularly with higher dosages
* Monitor blood count if treatment exceeds 14 days continuously

#### *Vital Information to Patient:*

-Take a complete dose, otherwise treatment may fail

- Suspensions to be shaken well immediately before use

-Drink a lot of water/fluid during treatment

### Management of Diarrhoea in Children:

The risk of dehydration in severe diarrhea is especially high in the very young children, the old and cholerae patients and rehydration should be carried out by means of oral or if necessary, intravenous administration of fluids.

* + Give oral rehydration therapy
	+ For a child continue breast feeding and other feeding to prevent malnutrition
	+ Treat bloody diarrhea with antibiotics
	+ Adults and children should be encouraged to treat diarrhea with oral dehydration therapy first. However if the frequency is more than 5 times per day immediately, refer to the nearest health facility.

#### Oral Rehydration Salt (ORS) (OTC)

**Presentation:** ORS sachets with powder for preparation of ½ or 1 liter of ORS solution (always read the label to find out the right quantity of water to be added). Treatment and prevention of dehydration in all forms of diarrhoea

**Dosages (for children and adults)**

* Give orally as often as the patient can take. It depends on the degree of dehydration

**Precautions:**

* Severe dehydration would need IV infusion
* Do not stop normal feeding including breast feeding

**Vital information to the patient:**

* Contents to be dissolved in ½ or 1 litre (half a litre equals one bear bottle)
* The solution should be used within 24 hours
* Store solution in a cool place and well covered

### Bloody Diarrhoea-Dysentery:

**Brief description of the medical condition (to include cause):**

Dysentery is a serious form of diarrhea accompanied by passage of blood and mucous. It is due to infection and inflammation of the colony mucous membranes, resulting in ulceration. It is commonly caused by amoebiasis (amoebic dysentery) or shigellosis (bacillary dysentery).

#### Presentation-Symptoms and Signs:

**Treatment (in relation to drugs available in the expanded ADDO list):**

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

## Worm Infestation

Worm Infestation is sometimes referred to as Helminthic infections. Most of worms are hosted in the gastro intestinal tract, though few may invade specific organs outside the GIT. Worm infection takes place as a result of ingestion of foods which are contaminated with worms, or eggs of the same. Worm infection is mainly a problem of unhygienic conditions and improperly prepared foods which may contain such worms. It is important to advice your patients to keep good hygiene and eat well prepared foods. Raw green vegetable should be thoroughly cleaned with worm water before they are eaten.

Worms that live in the GIT are parasite that is they depend on their host for their survival. This parasitic relation, when a large number of them are produced result into interfere with the normal functioning of the host systems and organs, which then is characterized in different physiological problems of the host.

Worm infections are classified based on the type of worm with characteristic symptoms for each type.

### General preventive measures against worm infection:

* Use latrines to avoid contamination of soil with faeces
* Wear shoes when walking over soil
* Treat infected persons immediately after diagnosis
* Wash raw fruits and vegetables carefully before eating
* Wash hands after toilet visit and before eating
* Cook freshwater fish and meat thoroughly before eating

Cestodea Infections – (tape worms)

#### *Cause and Symptoms:*

A person gets tapeworms by eating raw or undercooked beef infected with Cystricercus bovis, the larval stage of Taenia Saginata (beef tapeworm) or uncooked food containing pork tapeworm. Most tapeworm infections are symptomless and the commonest way of presentation is the appearance of proglottides or segments in the stool. There may be mild epigastric discomfort, nausea, weight loss and diarrhoea. Chronic worm infection may result into anaemic status, allergic reactions and fatigue.

#### *Treatment:*

The Drugs of choice:

Niclosamide (OTC):

**Presentation:**

Tablets 500mg;

**Indication:**

Treatment of tapeworm infection

**Dose (Adult and Child)**

**Adult and child over 6 years:**

 2g as a single dose after a light breakfast followed by purgative after 2 hours

**Child 2- 6 years:**

1g as a single dose after a light meal, followed by a purgative after 2 hours

**Child under 2 years:**

500mg as a single dose after a light meal followed by a purgative after 2 hours

**Side effects:**

Nausea, retching, abdominal pain and pruritus;

**Vital Information to patient:**

- Tablets should be chewed thoroughly before washing down with enough water.

- A purgative should be taken 2 hours after taking the dose

 - A light meal should be taken before taking the drug

 **b)** Nematode infection –(intestinal worms)

#### *1. Ascariasis (Round Worms):*

Clinical feature: it is an infection caused by Ascaris lumbricoides. The main clinical features are abdominal discomfort or colic, rarely they may cause intestinal obstruction and malnutrition

#### *Treatment:*

#### *Mebendazole (OTC)*

**Presentation:**

Tablet 100mg; Suspension 100mg/5mL

**Indication:**

Treatment of Round worms and Hookworm diseases

**Dose (Adult and Child)**

**Adult and Child over 2 years:**

100mg every twelve hours for 3 consecutive days

**Side Effect:** rarely, but could be due to hypersensitivity reactions, abdominal pain

**Precautions:**

- Not indicated during the first 3 months of pregnancy

- Not indicated for children under two years

**Vital advice to patient:**

- Take a full dose otherwise it may fail

- It is better to chew the tablets before they are swallowed with sufficient water.

Alternative Drug:

#### *Levamisole (OTC)*

Very effective against Ascaris lumbricoides

**Presentation:**

Tablets 40mg; syrup 20mg/5mL

**Dose (Adult and child)**

Adult and Child above 2 years – 120mg – 150mg as a single dose

Child below 2 years - 3mg/kg body weight as a single dose or 2.5mg/kg body weight as a single dose, repeated after 7days.

#### *2. Strongyloides:*

#### *Clinical features:*

Intestinal infection caused by Strongyloides stercoralis. The infection is usually asymptomatic but patients may have vague symptoms such as abdominal pain, nausea, flatulence, vomiting, acute fatty diarrhoea, epigastric pain and weight loss associated with marked eosinophilia. Heavier infections are more likely to produce stronger symptoms. Adult Strongyloides stercoralis live in the gut and produce larva which penetrate the gut wall and invade the tissues, resulting into auto-infections.

#### *Treatment:*

#### *Thiabendazole (OTC)*

**Presentation:**

Tablets 500mg; Suspension 500mg/5mL

**Indication:**

Strongyloidiasis, cataneous and visceral larva migrants; secondary treatment of threadworm when mixed with this infection.

**Dose (Adult and Child)**

Adult and Child – 25mg/kg body weight (max. 1.5g) every 12 hours for three days

**Side Effects:**

It is important to note that thiabendazole has a number of side effect and therefore the drug should be used only when it is indicated

**Precautions:**

-Not to be given to pregnant or lactating mother

- Careful when given to elderly, anaemic and dehydrated persons

- The drug may impair performance of skilled tasks (e.g. driving)

**Vital Information to patient:**

-Keep away from reach of children

-May feel dizziness, avoid driving or operating machines

-To suspend taking the drug and report if he/she gets serious reactions or side effects

- Advice the patient to apply calamine lotion on the site of larva appearance to relief itching.

#### *Alternative Drug:*

#### *Albendazole (OTC)*

This drug has fewer side effects as compared to thiabendazole.

**Presentation:**

Tablet 200mg; 400mg; Suspension 400mg/10mL

**Dose (Adult and Child)**

The dose for Adult and Child above 2 years – 400mg every 12 hours for three days. It can be repeated after 3 weeks if necessary. (more about the drug see below)

**Cautions:**

-Not for pregnant or lactating mother

-Use Non-hormonal contraception during treatment and for one month after treatment.

**Side Effects:**

Gastrointestinal disturbances, headache, dizziness

**Vital information to patient:**

* Woman not to take oral contraceptives during treatment
* Chew the tablet(s) and swallow with enough water
* Avoid driving or operating machine if feels dizzy

### Ancylostomiasis ( Hook worm Disease)

Clinical features: Hookworm disease is caused by parasitization of the small intestine with Ancylostoma duodenale or Necator americanus. It is one of the major clinical causes of Anaemia in the country.

The majority of patients are asymptomatic. However, in Hookworm disease the major clinical manifestations are iron deficiency Anaemia and hypoalbuminemia.

A patient should be advised to take Ferrous Sulphate if anemic.

#### *Treatment:*

*Mebendazole (OTC)* – is a drug of choice ( details see above)

**Side Effects:**

Gastro-intestinal irritation, nausea, diarrhoea, skin changes and rush due to sunshine on the skin. Try to avoid direct sunlight during the course.

**Vital Information to Patient:**

* complete the whole dose, otherwise treatment may fail
* Not to take it with antacids, milk, calcium, iron or magnesium containing salts
* Take the drug after food or 30 minutes before food.
* Take the drug with plenty of fluid while in an upright position

**Other Gastro-intestinal Problems.**

### Acute gastritis:

**Brief description of the medical condition (to include cause):**

Acute gastritis may result from irritation due to drugs, alcohol. Corrosive agents, irritation irradiation, bacterial toxins (e.g. staphylococcal) or can be associated with trauma or surgery may precipitate symptoms.

#### Presentation-Symptoms and Signs:

Acute gastritis is usually asymptomatic, but anorexia (loss of appetite for food), epigastric pain, nausea and vomiting may fallow. Acute gastritis due to the ingestion of corrosive materials is characterized by severe chest pain, epigastric pain, hemorrhage, vomiting, shock and perforation may occur.

**Treatment (in relation to drugs available in the expanded ADDO list):**

#### Magnesium trisilicate (OTC)-500mg tablets

It neutralizes stomach acid and it is used in gastric and duodenal ulcers, gastritis and heartburn

**Dosage:**

One to two tablets to be chewed or 10-15mL of mixture to be taken every 4-6 hours, on or after meals and at bed time.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

Avoid usage when patient is vomiting or has kidney problems.

Do not give with tetracycline/Doxycycline products

More effective if the tablets are chewed not swallowed

For the mixture – Shake the bottle well each time before you take a dose

### Gastro-enteritis

**Brief description of the medical condition (to include cause):**

Gastro-enteritis is a group of clinical syndromes characterized by acute inflammation of the stomach, intestine or both. It may be due to food poisoning and bacterial, viral or protozoa infection.

Food poisoning, gastro-enteritis is due to ingestion of food contaminated with bacterial enterotoxins and bacteria which invade the gut mucosa.

Non-bacterial gastro-enteritis may be due to ingestion of poisonous or chemically contaminated food. Viral infections are common causes of gastro-enteritis which often due to rotavirus in young children.

#### Presentation-Symptoms and Signs:

Nausea, vomiting, and diarrhea are common symptoms. Abdominal pain and fever may be present. In severe cases dehydration and shock may occur. The incubation period depends on the causative toxin or bacteria. Viral infection is usually self-limiting, lasting between 3 and 8 hours.

**Treatment (in relation to drugs available in the expanded ADDO list):**

Gastro-enteritis is treated by oral administration of fluids to prevent dehydration or alleviate dehydration by avoidance of solids until symptoms have subsided. In severe cases IV infusion may be necessary. Antibacterial are generally not recommended in simple gastro-enteritis and may prolong symptoms.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

### Heart burn

**Brief description of the medical condition (to include cause):**

This is a reflux of stomach (gastric) and duodenal contents into the esophagus, caused by incompetence of the lower esophageal sphincter and causes inflammation of the lining of the esophagus, when this happens very often?? It is very common among obese persons and pregnant women. The problem occurs commonly with infants.

#### Presentation-Symptoms and Signs:

Heartburn is characterized with chest pain (which may be confused with cardiac pain) and aggravated by stooping or lying down. Pain may occur while eating or dinking. Other symptoms include regurgitation of gastric contents into the mouth and dysphagia (difficulty in swallowing).

**Treatment (in relation to drugs available in the expanded ADDO list):**

Treatment consists of advising the patient to elevate the head of the bed, avoid stooping and tight clothing and administration of antacids and other drugs as may be recommended by a physician. Patients should be advised to lose weight, and avoid alcohol, caffeine, smoking and any foods like chocolate, fatty foods and anions which aggravated symptoms. Food and drink should also be avoided late at night before going to sleep.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

### Nausea and vomiting in children:

Vomiting in new born can result from a number of serious abnormalities including obstruction of the gastrointestinal tract. It may rapidly lead to dehydration. Refer immediately to a health facility. Spitting up (regurgitation) whereby milk appear to spill gently from the mouth is common in infants. Often the causes are simple such as overfeeding, feeding too rapidly, swallowing air, laying the infant down after feeding. Never use anti emetics in children. An ORS may be used in mild cases of dehydration.

### Haemorrhoids

### Brief description of the medical condition (to include cause):

Hemorrhoids (piles) are varicosities (distended) of the network of veins which line the anus and rectum. They are very often caused by straining as a result of constipation, low-fiber diets and pregnancy.

#### Presentation-Symptoms and Signs:

The principal symptom is the discharge of bright red blood from the rectum which at first occurs only on defaecation but later may occur independently of bowel action. Persistent blood lose may lead to secondary anaemia. Soreness, pruritis and discharge of mucus and pain on defaecation may occur

**Treatment (in relation to drugs available in the expanded ADDO list):**

Treatment consists of the adoption of high-fiber diet, the use of faeces softeners like Arachis Enema oil and liquid paraffin emulsion and the application of soothing preparations, and warm salt bath may give some relief. Compound hemorrhoid preparations with corticosteroids like Anusol, Proctosedyl with corticosteroids may need to be used if problem persist.

Patients should be instructed in hygienic measures and to replace protruding piles after defecations.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

**Session 5: Skin Diseases**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Describe signs and symptoms of common skin conditions
2. Identify appropriate treatment for common skin conditions
3. Recognize the signs and symptoms that require referral to higher health facility

## TIME:

## Skin Disease Conditions

## Fungal Infections

### Brief description of the medical condition (to include cause):

### Tinea captitis (scalp ringworm)

### In this case, the fungus has grown down into the hair follicle. Tropical treatment is unlikely to be effective. Tinea Vesicolor (Pityrias Vesicolor)

Common fungal infection caused by yeast. Hypopigmented patches of varying size on the chest, back arms and occasionally neck and face.

### No systemic treatment is required. Tinea Pedis (Athlete’s Foot)

This is a very common fungal infection and is often the source of infection at other sites.

#### Presentation-Symptoms and Signs:

It is a chronic fungal infection of the skin, hair or nails. Clinical features depend on site of infection and species of infecting fungus. The types of fungus and site are shown below. Ringworm on hairs is shown by loss of hair, itching and pustules. On the skin there is color change itching, scaling and presence of pustules. In nails there is destruction of the nail with color changes.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Round expanding lesions with white, dust like scales and distinct borders on the body or face.
* Responds to any of the topical antifungal agents
* Drugs of choice- Compound benzoic acid (“Whitfield ointment”) applied two to three times a day for up to 4 weeks
* **Second choice-** Clotrimazole cream 1% apply thinly, three times a day continues for 5 to 7 days after clearing of symptoms.
* Miconazole cream 2% apply thinly two to three time a day. Continue for 5 – 7 days after clearing of symptoms
* Treat with-Griseofulvin (O) for more than 6 weeks, Adults 500mg once daily. Children- 10mg/kg once daily
* Apply- Sodium thiosulphate 15% solution.
* Treat any bacterial super infection first:
* First choice-Potassium permanganate 1:4000 soak the feet in the solution twice daily keep the feet as dry as possible. Then apply: Gentian violet 0.5% solution twice daily.
* Second choice- If fails to respond try-Miconazole cream 2% or Clotrimazole cream 1%. In severe infections use Griseofulvin as above

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

Frequent change of socks/footwear, use of cotton socks, thorough drying between toes after bathing, separating the opposing skin surfaces (e.g. with a piece of gauze) will prevent infection and speed up healing.

### Candidiasis

### Brief description of the medical condition (to include cause):

It is caused mainly by Candida albicans. Clinical features depend on the site of infection. Thus the infection of the skin (cutaneous candidiasis) is characterized by red, itchy lesions often found in the folds and on the buttocks of babies. Infections of the nails give a swollen and painful nail bed which may discharge pus and is made worse by contact with water. There may be destruction of the nail vulvae vaginal candidiasis is common in women on the pill in pregnancy and diabetics and in people on prolonged antibiotic course. Vulvae vaginal candidiasis is characterized by pruritis, curd-like vaginal discharge, dysuria and dyspareunia. Disseminated candidiasis, this is a complication of the above, presenting with fever and toxicity.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Oral G.IT Fungal infections- Gentian Violent 0.5% apply every 12 hours for 14 days for oral thrush apply every 6 hours for 14 days OR Nystatin apply either a gurgle (in adults) every 8 hours or as oral suspension in children every 8 hours for 14 days OR Miconazole oral gel apply as oral suspension in children every 8 hours for 5 day.
* Vaginal infections- Nystatin Pessaries insert 1 at night for 14 days Clotrimazole Pessaries/vaginal cream insert/apply 1 at night for 6 days OR
* Miconazole Pessaries/vaginal cream insert/apply once at night for 3 days OR Ketaconazole 200-600mg every 24 hours for 10 days.

**Scabies**

### Brief description of the medical condition (to include cause):

It is caused by the mite *sarcoptes scabies* burrowing into the skin. The main clinical features are itching initially between the fingers or on the buttocks or genitals and latter can be generalized. In the tropics secondary streptococcal infection is an important cause of rheumatic fever and glomerulonephritis.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Treat all close contacts, especially children in the same house hold with BBE 25% apply every 12 hours
* Wash clothing and bedding and leave in the sun to dry
* Secondary bacterial infection (“septic sores”) treat with antibiotic as for impetigo for 5 day
* Only apply scabicide once lesions are closed
* Advice that the itch may continue for several weeks

**Bacterial Skin Infections**

### Brief description of the medical condition (to include cause):

Bacterial skin infections can be impetigo, erysipelas or recurrent boils. All these are caused by either staphylococcus alone or together with streptococcus but rarely streptococcus alone.

### Impetigo

This is a superficial bacterial infection causing rapidly spreading blisters and pustules. It occurs commonly in children usually starting on the face, especially around the mouthy or nose. It is often due to staphylococcus aureus.

Keep infected areas clean and prevent spread to other (care with towels, clothes, bedding, and change frequently).

### Folliculitis

Superficial infection causing small pustules, each localized around a hair. Deep follicular inflammation often occurs in the bearded areas of the face (Sycosis barbae).

### Furunculosis

It is a painful boil, most frequently caused by staphylococcus aureus. The skin around becomes red and hot. Usually resolves itself, but improved by placing frequent hot compresses over the boil until it breaks

In a healthy person, review after 2 days, if not improving consider surgical incision and drainage.

**Treatment (in relation to drugs available in the expanded ADDO list):**

#### Bathe affected parts/soak off the crusts with: Potassium permanganate 1:4000 (0.025%) solution OR Sodium chloride (salt added to bath) OR simply with soap and water.

#### If severe or systematic symptoms present (e.g. Pyrexia) add an oral antibiotic Drug of Choice- Phenoxymethylpenicillin (O) for 7 – 10 days. Adults- 250 – 500mg every six hours, Children 25mg/kg/24 hrs every six hours.

#### Second choice drug-Erythromycin (O) for 7 – 10 days-Adults 250-500mg every 6 hours Children 25-50mg/kg/24 hrs in 4 divided doses OR Cloxacillin (O) for 7 – 10 days Adults-250 – 500mg four times daily (every 6 hours), Children- 50 -100 mg/kg/24hrs every 6 hours in equal doses.

#### NOTE- For S. aureus, Erythromycin or Cloxacillin are preferable as they are likely to be effective against these organisms

#### Suspected irritants should be avoided-Use of suitable disinfecting and cleansing agents should be encouraged. Appropriate anti-infective skin preparations (Neomycin Sulphate, gentamicin or Oxytetracycline cream or ointments) can be used.

### Other Skin Conditions

### Herpes Zoster (Shingles)

### Brief description of the medical condition (to include cause):

Due to the resurgence of the *varicella zoster* virus, this also causes chickenpox. Severe burning pain precedes a rash which is vesicular and almost always unilateral, does not cross the midline. In uncomplicated cases the rash disappears in 24 weeks, in the hemorrhagic necrotizing form (HIV related) scarring often remains.

**Treatment (in relation to drugs available in the expanded ADDO list):**

Give analgesic: see pain management

- Indomethacin may be helpful in the acute phase

- Apply topical calamine lotion or emollient

**Session 6: Eye, Ear, Nose and Throat Conditions**

***PURPOSE:***

## OBJECTIVES:

## By the end of this session, participants will be able to

Describe signs and symptoms of common eye conditions

Identify appropriate treatment for common eye conditions

Recognize the signs and symptoms that require referral to higher health facility

## TIME:

## Eye Conditions

Eye diseases can be prevented or managed through the following:

* Proper diet ( vitamin A and proteins)
* Personal and environmental hygiene
* Measles immunization
* Early treatment by qualified health personnel
* Do not use non-sterile or herbal medicines in the eye.
* Avoid use/give steroid eye preparation without the advice of a specialist.

**Also: Only** – specialist should issue/prescribe atropine eye drops/ointment.

### Conjunctivitis

### Brief description of the medical condition (to include cause):

* Is an inflammatory condition which may be caused by viruses, bacteria or allergic reaction but most common is bacteria.
* **If bacteria infection** – copious purulent discharge.
* If it due to virus: watery, and itching.
* **If due to allergy-** Features: Mucoid discharge, marked itching and both eyes.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Fist line -Tetracycline 1% eye ointment every 8 hours for 5-7 days. Second line: Chloramphenicol 1% eye ointment every 8 hours for 5-7 days.
* **Treatment**: No need for treatment. If in doubt treat as for bacteria.
* **Treatment:** Educate/reassure- Cold compresses, Zinc sulphate drops or Sodium cromoglycate, antihistamine drops.
* *Tetracycline Eye Ointment (OTC-*External bacterial infections of the eye, conjunctivitis and trachoma. Apply every 12 hours as may be instructed by the prescriber. In trachoma it is necessary to repeat the 5 days course once every month for 6 consecutive months.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

* Do not use inpatients with severe liver and kidney diseases
* Do not use when patient is allergic to the tetracycline group
* Not effective in viral eye infections
* Do not give to children under 12 years, pregnant or breast-feeding women
* Not to be taken with antacids, milk, iron and magnesium containing salts

## Ear, Nose and Throat Disorders

### Otitis (External and Media) Otitis External

### Brief description of the medical condition (to include cause):

* This is an inflammatory condition of both the external auditory meatus and/or the middle ear.
* The clinical features are itching and pain in the dry, scaling ear canal. There may be a water or purulent discharge and intermittent deafness.
* Pain may become extreme when the ear canal becomes completely occluded with edematous skin and debris.
* In otitis media (acute or chronic) the clinical features are ear pain, a sensation of fullness in the ear and hearing loss, aural discharge.
* Onset usually follows an upper respiratory tract infection.
* Chronic otitis media is nearly always associated with perforation of the eardrum. Otitis Media
* *Acute otitis media* Acute purulent exudates in the middle ear without discharge (acute suppurative otitis media).
* *Secretory otitis media-*These are multifactorial non purulent inflammatory conditions in the middle ear with serous or mucous discharge. This is also a residual condition after acute otitis. *Clinical Signs:* **Acute otitis media-**Previous common cold, Pain, Restlessness, Usually feverish, Hearing often reduced, Possible discharge of pus from ear.
* **Simplex otitis-** May present one or more of the above symptoms in a less pronounced form but without any discharge from the ear.
* **Secretory otitis-**Little or no pain, Gradual loss of hearing, “Popping” in the ear (rarely), Often discovered by chance.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Exclude an underlying chronic otitis media before commencing treatment
* Instruct the patient to thoroughly clean and dry the ear.
* **Adult and Children Aluminium acetate drops** 13%, instill 3-4 drops every 6 hours after cleaning and drying the ear for 5 days.
* *Treatment guidelines-*A cute otitis media should be treated with antibiotics or paracentesis. Culture of a discharge (if any) could be of a great help to identify the causative bacteria.

### Acute Rhinitis and Sinusitis

### Brief description of the medical condition (to include cause):

* Rhinitis is caused by a variety of viruses. Acute sinusitis starts with obstruction of the ostium, followed by reduced ventilation, retention of discharge and bacterial multiplication. If the ostium is blocked for a longer period, sinus empyema may occur.
* The bacteria most often causing purulent sinusitis are pneumococci and *Haemophillus influenza* which is some studies are shown to be equally common*. M catarrhalis* and group *A streptococci* also occur. In sinusitis of dental origin, anaerobic bacteria are often found.
* *Acute rhinitis-*A viral inflammatory condition in the nasal mucous membrane, usually part of a more wide spread infection of the upper respiratory tract.
* *Acute purulent sinusiti-*This is a bacterial infection with puss accumulation in one or more of the sinuses.
* *Acute serous sinusitis-*This is an inflammation in one or more sinuses with fluid accumulation but without pus formation.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Elevation of the head
* Nasal drops or spray e.g. Ephedrine hydrochloride 1% for adult and 0.5% for children or Beclomethasone spray
* Oral drugs to reduce swelling of the mucous membrane antihistamines and antibiotics are not indicated.
* **Symptomatic Treatment-**Elevation of the head
* Nasal drops or spray
* Oral drugs to reduce swelling of the mucous membrane or anti-histamines are not indicated.
* **Treatment with antibiotics-**

**Drugs of choice Phenoxymethylpenicillin**

Adult 250 – 500 mg every 6 hours for 10 days

Children up to 5 years 6mg/kg every 6 hours for 10 days

6 – 12 years 250 mg every 6 hours for 10 days

Second choice for adults only 200mg mg on the first day as a single

And children above 12 years dose then 100 mg from the following

 Day every 24 hours for 10 days

**NOTE:**

Doxycycline for adult only and children above 12 years

**Co-trimaxazole (POM)**

Children

6 weeks – 5 years 0.5ml/kg every 12 hours for 10 days

6 – 12 years 480 mg every 12 hours for 10 days

**Amoxycillin (POM)**

Adult 500mg every 8 hours for 10 days

Children

Up to 10 years 10mg/kg every 8 hours for 10 days

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

* **Referral to Specialist-**Adults with treatment failure and pronounced symptoms. If sinusitis of dental origin is suspected. Recurrent sinusitis > 3 times a year. Cases where sinus puncture or operation may be indicated.

### Tonsillitis

### Brief description of the medical condition (to include cause):

* It is an acute inflammation of the pharynx and/tonsils characterized by fever and pain.
* Pharyngotonsillitis is caused by virus or bacterial. Clinical important pathogens are group A beta haemolytic streptococci (GAS) and Eptein – Barr virus (EBV). In practice GAS is an indication for treatment with antibiotics.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* As a general rule pharyngotonsillitis caused by GAS should be treated with antibiotics. If treatment is begun early, duration of the illness can be shortened.
* Antibiotics can hinder the spread of infection and reduce the risk of complications.

**Drug of Choice Phenoxymethylpenicillin (POM)**

Adults 250 mg every 8 hours for 10 days

 + Paracetamol 1000 mg every 8 hours until fever

 controlled

Children See under treatment of purulent sinusitis

 + Paracetamol 10mg/kg body weight every 8 hours until

 fever controlled

**Second choice Erythromycin (POM)**

Adults and Children over 8 years 250 – 500 mg every 8 hours for 10 days

Children up to 8 years 10 mg/kg every 8 hours for 10 days

 +Paracetamol 10 mg/kg body weight every 8 hours

 until fever controlled.

**NOTE:**

Duration of treatment is 10 days. Shorter treatment involves increased risk of therapy failure.

### Laryngitis

### Brief description of the medical condition (to include cause):

* This is an acute infections inflammation in the larynx. The etiologic agent is normally a virus. Viral infection may give rise to bacterial super infection. The picture of the disease is different in children and adults.
* Acute subglottic laryngitis (pseudocroup) occurs mainly in children under the age of seven. Edema of the mucous membrane of the subglottic space causes breathing difficulties especially on inspiration. Laryngitis on children may require active treatment.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* **Symptomatic treatment-** General advice and treatment at home
* Parents should behave calmly and avoid frightening the child
* Raise the upper part of the body
* Keep the air damp and cold, Give extra fluid
* Nasal drops or spray may be helpful
* If symptoms persist or worsen, seek medical advice.
* *Drug treatment in general practice-*Epinephrine (Adrenaline) inhalation effectively reduces symptoms, but the effect may be short lived

## Session 9: Chronic Conditions-Hypertension, Epilepsy and Asthma

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

* Describe signs and symptoms of common chronic conditions
* Identify appropriate treatment for common chronic conditions
* Recognize the signs and symptoms that require referral to higher health facility

## TIME:

## Hypertension

### Brief description of the medical condition (to include cause):

* Hypertension is abnormal high arterial blood pressure. It may either be of unknown cause or due to a known cause. The blood pressure of health person may extend over a wide range of values. Normal blood pressure is systolic (contraction of ventricles of the heart) pressure 120 mmHg and diastolic(relaxation of ventricle) pressure 80 mmHg. Causes for high blood pressure are: Age, diet, family history, obesity disease and drugs.
* *Symptoms-*Include blurred vision, dizziness, dyspnoea (difficult in breathing) and nocturia (frequency in urination at night) may occur; with severe hypertension headaches may occur. Main complications of hypertension are heart failure, myocardial infection, renal failure and stroke. Causes of hypertension should only be treated when the patient has a prescription from a medical practitioner. Chronic hypertension has complications (cardiac failure, renal failure, stroke). This diseases carries a high risk and therefore should be handled by qualified personnel.

**Treatment (in relation to drugs available in the expanded ADDO list):**

* The DUKA LA DAWA MUHIMU shops are equipped with the following anti-hypertensive drugs.
* Diuretics: These cause an excess urine formation and eventually lower blood pressure due to sodium lost in the urine e.g. Hydrochlorothiazide – Tablets: Dose 5 mg as per prescription, Bendrofluazide – Tablets : 5 mg tablets as per prescription.
* Beta blockers: Drugs that affect the blood vessels. e.g. Propranolol 40 mg tablets as per prescriptions , Side effects: may cause jaundice

### Asthma:-

### Brief description of the medical condition (to include cause):

* Asthma is a chronic reversible obstructive airways disease of varying severity.
* The symptoms observed are due to constriction of the airways smooth muscle, oedema of bronchial mucus membranes and blockage of small air ways (bronchi ) with plugs of mucus. The causes of asthma however may be various.
* The exact cause of asthma is unknown, however studies have shown that factors which can cause asthma are allergens, which cause extrinsic asthma and those which are unknown which may cause intrinsic asthma.
* In terms of severity Asthma may be classified into-Mild, Intermittent, Severe.

**Presentation-Symptoms and Signs:**

* Symptoms of asthma range from severe life threatening. The main symptoms are Dyspnoea (difficulty in breathing), wheezing, tightness of chest, cough with or without sputum, tachycardia (fast or raised heart beat), fatigue (feeling tired) drowsiness (feeling sleepy).

**Treatment (in relation to drugs available in the expanded ADDO list):**

* Asthma has a high risk and should be treated by qualified personnel. It is important to refer severe cases to nearest health facility. Reassurance and education are important components of treatment. Patients should be told to avoid known trigger factors and encouraged to maintain active life. Smoking should be discouraged

#### *Drugs:*

#### *Salbutamol (OTC)*

**Presentation:**

Tablet 4mg or 2mg; syrup 2mg/5mL

**Indication:**

Acute or chronic asthma and other conditions associated with reversible airway obstruction

**Dosage (Adult and Child)**

Under 2 years: 0.1mg/Kg body weight every 6 hours

2 – 6 years: 1-2mg every 6 or 8 hours

7 – 12 years: 2mg every 6 or 8 hours

Adult: 4 – 8 mg every 6 or 8 hours

#### *Other drugs used for asthma*

#### *Aminophylline tablets (OTC); Injection (POM).*

**Presentation:**

100mg tablet; 25mg/mL – 10 mL ampoule

**Indications:**

Treatment of asthma; Injections are for severe acute cases only

**Dosage:**

Oral:

Children:

0 -1 year 4mg/kg body weight every 6 hours

1-12 years: 3mg/kg body weight every 6 hours

Over 12 years and Adult:

2-3mg/kg body weight every 6 hours ( usually 100-200mg every 6 hours)

**Injection:**

Injections should be done by a qualified person in a clinic or hospital. The IV administration should be done very slowly, as fast administration may cause fatal cardiovascular reaction

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

* **Precautions/Contra indications:** To not use in patients with hyperthyroidism, cardiovascular diseases; hypertension, diabetes mellitus, do not use during pregnancy and while breast-feeding.
* **Side Effects-**Fine tremor usually of hands, Nervous tension, headache, nausea, sleeplessness, Excitation, Peripheral vasodilatation, Increased heart rate.
* **Vital Information to patient:-**Take lower dosages if you feel restless or start trembling because of using the drug or if your breathing has improved. It is advisable to take the last dose of the day as early as possible before going to sleep. Keep out of reach of children.
* Precautions/Contra Indications-do not use in liver, heart and kidney diseases and acute viral infections, Use with caution in young and elderly people, Use with caution in breast-feeding, take the drug after feeding.
* **Side Effects:** May cause nausea, restlessness, diarrhea, May increase hart rate, Side effects are however related to high doses.
* **Vital Information to the Patient:** Take the drug with meals, Do not take more than what has been prescribed, Take the oral dosage at every regular intervals, Keep out of children.

 **Session 10: Family Planning and Reproductive Health**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

## Contraceptives:

They work by preventing an unintended pregnancy. The consistent and proper use of contraceptives, whether prescription or non-prescription, significantly reduces the incidence of un-intended pregnancies.

Prevention of un-intended pregnancy:

No method of birth control is perfect. Contraceptive choices may change during a person’s sexually active life. Major points should include safety effectiveness, accessibility and acceptability and acceptability of each method to each sexual partner.

Non-prescription contraceptives: includes male condoms, female condoms, foam tablets, vaginal spermicides, and natural family planning (abstinence).

#### *Oral Contraceptives (POM):*

* Combined oral contraceptives-contain progesterone a nd oestrogen in differing combinations. They are very efficacious (97 % - 98%) and are generally provided in 21-day packs.
* *Oral Formulations-* They may have the same amount of oestrogen and progestin.
* This is taken daily for 21 days, followed by a 7 days pill free period. Some preparations come as 28 – day packs, with the pills for the last 7 days containing no active medicine (placebo)
* *Sequential Preparations-*Use of oestrogen alone for 14 days followed by an oestrogen-progestin combination for 7 days
* *Market Products Available—*Microgynon, Lofemenal, Microval, Safe plan.

**Vital Information to Patient (referral, advice for home Rx, care/side effects with certain drugs and follow up)**

#### Unwanted effects: Nausea oedema, light headache, Breakthrough bleeding, Withdrawal bleeding.

#### Weight gain, acne.

#### Contra Indications:-Never use in individuals with cardiac diseases, thrombo – embolic disease, cerebral vascular disease, known or suspected carcinoma of the breast, abnormal undiagnosed vaginal bleeding, known or suspected pregnancy, impaired liver function.

#### Some Benefits of Oral Contraceptives- Combination oral contraceptives reduce the incidence of ovarian and endometrial cancers within 6 months of use, Decrease incidence of ovarian cyst, Regulate menses, Reduces menstrual blood loss, Less pre menstrual tension, Decreased frequency of painful menstruation (dysmenorrhoea)

**MODULE 4:**

**Sexually Transmitted Diseases including HIV/AIDS**

1. Overview
2. Common STIs and Treatment
3. Syndromic Treatment: Men and Women
4. HIV/AIDS

**Session 1: Overview**

## PURPOSE:

Due to inadequate facilities and expertise laboratory proven diagnosis of sexually transmitted infection/diseases (STI or STD) is not always possible. The recommended treatment given in the following sections is based on diagnosis of STI associated syndromes. The treatment method is there called STI Syndromic Treatment Method. However this diagnosis can only be made by somebody who has enough knowledge to make reasonably accurate guess of the problem and therefore provide the correct treatment. Shop owners and dispensers should avoid making quick diagnosis and advising patients to take treatment without the opinion of approved clinical person.

Contact tracing is encouraged as an important means of preventing further spread. Patients should be given appropriate sexual health education and advise how to avoid future infection. For those who cannot change their sexual habit, use of condoms during sexual relations, should be emphasized. The problem of HIV should be discussed the easiness of contracting the disease if no safe-sex is practiced should be discussed.

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

## Sexually Transmitted Diseases:

### General Guideline;

General Treatment Guide:

**First line treatment schedule** – This therapy is recommended when the patient makes hi/her first contact with the health care facility.

**Second line treatment schedule** –This therapy is given when the first line treatment schedule has failed and there is no possibility of re-infection.

Third line treatment schedule - the treatment should only be used when expert attention and adequate laboratory facilities are available, and where results of treatment can be monitored.

Warning: In order to ensure complete cure, doses LESS than those recommended must NOT be administered. The use of inadequate doses of antibiotic or antibacterial encourages the growth of resistant organisms which will than be very difficult to treat and expensive for the patient or the public.

### Reasoning Behind the STI Drug Treatment Regimes:

In choosing STI treatments, high efficacy of greater than 95% is most important. There is increasing evidence that some of the drugs for the treatment of STI are below acceptable level of effectiveness. This is particularly in the case of chancroid and gonorrhoea. New drugs have been introduced for these conditions but every health provider is advised to carefully use them before resistance problems reoccur and new drugs should be better used second and third line drugs. The advised is valid because:

* High cost of new drugs means that availability cannot be assured for first line use yet
* there is still limited experience of the effect of concurrent HIV infection on the response to treatment, (efficacy, adverse, effects), particularly in Tanzania setting
* resistance is know to develop fast, and this should be minimized or delayed by carefully using the drugs.

**Session 2: Common STIs and Treatments**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

### 1. Gonorrhoea

It is a bacterial infection caused by Neisseria gonorrhoea. Man is the natural host. In addition to sexual transmission, gonorrhoea may be acquired by infant from an infected mother during birth.

#### *Symptoms:*

The incubation period is 2 to 14 days for men and 7 to 21 days for women. Gonorrhoea is mostly asymptomatic particularly for women, who may remain carriers for weeks. Almost all infected males present with symptoms, like urethritis, characterized by dysuria, frequency and urgency. A yellowish, purulent, urethral discharge may also occur. If the disease is not treated for a long time complications may occur like change of urethral structure.

The most common site of infection in females is the endocervics and symptoms include vaginal discharge and occasionally abnormal menstrual bleeding. Symptoms of gonorrhoea females can be masked by those of thrichomonasis which very common associated. Complications in females include pelvic inflammatory diseases and infertility.

The eyes are most affected in neonates although other sites may be infected.

#### *Treatment::*

* All gonococcal infections are likely to be resistant to common drugs like Penicillins, Tetracycline, Doxycycline, Co-Trimoxazole and Erythromycin
* Other causes for treatment failure should be considered
* Gonococcal and Chlamydial infections frequently co-exist, therefore combined therapy should be given
* For general treatment see under Syndromic treatment of STI

### 2. Chancroid:

Chancroid is a bacterial infection caused by Haemophilus ducreyi. Its incidence appears to be associated with poor living conditions and low standards of hygiene. The infection is transmitted sexually, invading the host through small abrasions. The incidence is greatest in men.

#### *Symptoms:*

Incubation period is less than a week but may be as long as 2 to 3 weeks. A small painful papule develops at the inoculation site (usually in the perianal or genital area) and rapid develops into a pustular vesicle which ulcerates (becomes an ulcer). The ulcer is shallow, painful and tender with ragged margins. These lesions may be many due to auto-infection. Painful buboes may be formed. The ulcer may heal with scar formation.

#### *Treatment:*

#### *Co-trimoxazole (POM)*

**Dosage:**

960 mg every 12 hours for 10 days OR

#### *Erythromycin (POM)*

500 mg every 6 hours for 10 days

### 3. Chlamydia Infections

#### *Lymphogranuloma venereum*

Several infections are cased by Chlamydia parasite. The primary genital lesion is rarely demonstrable in women, but usually occurs in men as a painless ulcer on the penis that heals within a few days. After a latent period of days or months, an acute lymphadenopathy ( disease of the lymph nodes) develops. If left untreated, the inflammatory masses, or buboes may ulcerate to form chronic sinuses and fistulae. In late stage of the disease, chronic lymphatic obstruction results in lymphoedema of the genitalia.

#### *Treatment:*

#### *Cotrimoxazole (POM*)

**Dosage:**

480mg x 8 tablets once every 2 days **PLUS**

#### *Doxycycline (POM).*

100mg every 12 hours for 10 days

**Vital information to patient:**

* Take full dose or treatment may fail
* Take with food
* Take plenty of water while using these drugs

### Epididymo – Orchitis

This is an acute severe inflammation of the epididymis, testis and spermatic cord. The main clinical features include swollen and tender epididymis, severe pain of one or both testes and reddened edematous scrotum. The causative organisms are filarial worms, Chlamydia trachomatous, gonorrhoea, E. coli as well as viruses

#### *Treatment:*

**Dosage:**

First Line:

#### *Doxycycline (POM)*

100 mg every 12 hours for 10 days **PLUS**

#### *Co-trimoxazole (POM)*

960 mg every 12 hours for 2 days **PLUS**

#### *Acetylsalicylic Acid (Aspirin) (OTC)*

600 mg every 6 hours until pain is controlled

Second Line:

#### *Erythromycin (POM)*

**Presentation:**

Tablet 250mg and 500mg, Syrup 125mg/5 mL.

**Indication:**

Wide spectrum antibiotic for the treatment of various infections. Alternative to penicillin in hypersensitivity. Can used for the treatment of respiratory infections, whooping cough and general tissue infections.

**Dosage (Adult and Child):**

Adult and Child from 8 years – 500mg every 6 hours for 10 days

#### *For general infections:*

Adult and Child from 8 years – 250mg – 500mg every 6 or 8 hours for 5 to 7 days

Child 2 – 8 years – 250mg every 6 or 8 hours for 5 to 7 days

Child up to 2 years – 125mg every 6 or 8 hours for 5 to 7 days

#### *Precautions/Contra Indications:*

* cautions in hepatic and renal impairment
* Contra-indicated in liver diseases
* Hypersensitivity to erythromycin

#### *Side Effects:*

* Nausea, vomiting and abdominal discomfort
* Rashes and other allergic reactions
* Reversible hearing loss with high doses
* Cardiac effects

#### *Vital Information to Patient:*

* Take a full dose otherwise treatment may fail.
* Take the drug after at least some meal- with empty stomach you may experience abdominal discomfort.
* Take the drug with enough water

### 4. Trichomaniasis

It is caused by a flagellate protozoa Trichomonas vaginalis. It causes inflammation of the vagina and cervix in females and inflammation of urethra and prostate gland in males. Sometimes there are no clear clinical features however if they occur, it includes frothy green/yellowish discharge, itchiness, erosion of cervix.

#### *Treatment:*

#### *Metronidazole (POM)*

**Dosage (Adult and Child):**

* 2 g as a single dose at bed time.
* Give the same treatment to partner
* In pregnancy treatment with the drug should be delayed until after first trimester

( For details of Metronidazole see above).

### 5. Syphilis

Syphilis is a chronic infectious disease caused by the spirochete treponema pallidum. It can be acquired mainly through sexual intercourse or congenitally when the mother transfers it to fetus. There are several stages of syphilis depending on which type. For congenital type there is the early and late stage. The acquired form has three stages of infection development. These are; Early, Primary and Secondary syphilis, Late Tertiary gummatous (focal areas of inflammatory destructions) and Quarterly (cardiovascular and neurosyphilis

### Genital Warts:

They are caused by papilloma group viruses infecting the skin or mucous membrane.

#### *Symptoms:*

The common sites affected by warts include genital region, hands and legs. The lesions are usually asymptomatic fleshy growths. In genital region, lesions are often finger like and increase in number and size with time. When extensive they may interfere with sexual intercourse and child birth.

#### *Treatment:*

-Carefully apply either 10-25% Podophyllin or 80% Trichloracetic to the warts and wash off in 6 hours and dry thoroughly after that.

-Repeat treatment every 2-3 days until warts are gone.

**Session 3: Syndromic Treatment: Men and Women**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

## The Syndromic Treatment of STD

### 1. In Men

**Possible Symptoms or Signs**

#### *Genital Ulcers/erosion. Genital Ulcer – Yes Disease (GUD)*

1. Benzathine Penicillin 2.4 MU, half into each buttock

2. Co-trimoxazole 8 x 480 mg tablets in one done.

3. Gentian violet 0.5 1.0% to ulcers. Checks for improvement, in 7 days, if none, REFER.

#### *Swelling and inflammation in scrotum, Yes with possible urethral discharge*

1. Co-trimoxazole (O) 8 x 480 mg tables once a day for 2 days
2. Doxycycline (O) 100mg every 12 hours (sun up and sun down) for 10 days
3. Scrotal support to take weight off spermatic cord, worm for a month, except when in bed. Check for improvement in 5 days if none REFER

**NO**

#### *Urethral discharge alone urethritis Yes*

1. Co-trimoxazole (O) 8 x 480 mg tables once a day for 2 days
2. Doxycyline (O) 100mg every 12 hours (sun up and sun downs) for 7 days Check for improvement, at the end of treatment, if none REFER

**NO.**

#### *Bubo. Swollen tender lymph – glands Yes (nodes) in the groin*

Doxycycline (O) 100mg every 12 hours (sun up and sun down for 14 days check for improvement at least of tenderness after 7 days. If none REFER

**NO.**

#### *Enlanits. Welling and inflammation Yes*

1. Cleans with salty water. Dry under fore skin and on the glans penis
2. Paint with Gentian Violet 0.5 – 1.0% every other day x 3.1f no better in 7 days change to:
3. Nystatin cream, 0.5 – 10cm behind the glans 12 hourly for 7 days, cleansing before reapplication
4. Check for improvement, at the end of treatment. If none REFER

**NO**

#### *Non itchy rashes on the body or non Yes*

Treat for secondary syphilis with Benzathine penicillin 2.4 MU deep IM half into each buttock

If no improvement in 7 days, REFER

Tender swollen lymph glans at several sites REFER

### IN WOMEN

**Possible symptoms or signs**

#### *Lower abdominal pain with possible vaginal/cervical discharge, Yes*

1. Co-trimoxazole (O) 8 x 480mg tablets once a day for 2 days
2. Doxycycline (O) 100mg every 12 hours (sun up and sun down) for 14 days
3. Metronidazole (O) 400 – 500 mg every 12 hours for the first 7 days

Check for improvement at the end of 7 days REFER in none.

NO.

#### *Viginal discharge WITHOUT ANY LOWER ABDOMINAL PAIN Yes*

1. Co-trimoxazole (O) 8 x 480 mg tables once a days for 2 days
2. Doxycycline (O) 100mg every 12 hours (sun up and sun down) for 7 days
3. Metronidazole (O) 2.0g in one dose

Check for improvement at the end of treatment. REFER if none

**NO.**

#### *Genital ulcers/erosions Genital Ulcer Diseases (GUD)*

1. Benzathine penicillin 2.4 MU deep IM, half into each buttock
2. Co-trimoxazole (O) 8 x 480 mg tablets in oen dose
3. Gentian Violet 0.5 – 1.0% to ulcers

Check for improvement after 7 days REFER f none

**NO**

#### *Bubo. Swollen tender lymph-glands (nodes) in the groin Yes*

1. Doxycycline (O) 100mg every 12 hours (sun up and sun down) for 14 days
2. If PREGNANT or BREAST FEEDING, Erythromycin 500mg every 6 hours for 14 days

Check for improvement at least of tenderness after 7 days REFER if none.

**NO**

#### *Candida infection. Swelling and itchy soreness of the labia, possibly with some thick discharge Yes*

1. Gentian violet .5 – 1.0% painted on lower vaginal, labia and skin every other day x 3 if needed.
2. Clotrimazole Pessaries 500mg. One inserted deep into the vagina at bed time

Check for improvement after 7 days REFER if none.

#### *Genital Warts*

Carefully apply either 10 – 25% podophyllin or 80% trichloracetic acid toteh warts, and wash off if 6 hours, drying thoroughly. Treat every 2-3 days until warts are gone

Non-itchy rashes on eht body or nont ender swollen lymph glands at several sites – Yes.

Treat for secondary syphilis with Benzathine penicillin 2.4 MU deep IM half into each buttock. If no improvement in 7 days REFER.

**Session 4: HIV/AIDS**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

### HIV/AIDS:

AIDS is an abbreviation for Acquired Immune Deficiency Syndrome. Is a systemic viral infection. It is caused by Human Immunodeficiency virus – HIV. AIDS has collective symptoms that results from HIV complications. Virus can also be transmitted through affected blood transfusion and sharing of needles, syringes , medical instruments and via placenta to fetus.

#### *Treatment:*

 There is no treatment for these conditions. Usually what is done is treatment of infections which occur because of the lowered immunity. E.g. Cotrimoxazole and many other drugs not included in this book. However, currently some drugs have shown ability not to cure the diseases but at list support life of infected people for a substantial time. Nevertheless these drugs must be given under very strict medical control to monitor serious side effects which may result from the use of these drugs and also reduce incidences of resistance development.

Advice and Refer these cases to higher health facilities.

Public Education: Encourage the public especially the youth to have one and reliable sexual partner if they cannot abstain from sex or always use condoms when having sex with no established sexual relationship.

# MODULE 6:

# Practical Work

1. Field Work

**Session 1: Overview**

## PURPOSE:

## OBJECTIVES:

## By the end of this session, participants will be able to

## TIME:

Introduction

Field work is intended to allow the student practice the dispensing knowledge, skills and attitude gained during the training. The students will be attached to health facilities approved before hand

### Aim

To expose the students to dispensing section of some selected drug outlets.

### Objectives

At the end of the training the student should be able to:

To practice in DUKA LA DAWA MUHIMU and provide good quality services

### Contents

Dispensing

Proper labeling/packing

Calculation of doses

Patient counseling

Record keeping

### Teaching Methods

Actual field practice

Coaching

Discussion

Demonstration

Method of Evaluation

Practicals

## Recommended Reading Materials

MoH, Good Dispensing Manual (Engish and Kiswahili Versions)

Robin J. Harman, Handbook of Pharmacy Health Care – Diseases and Patient Advice

Standard Treatment Guideli

#### *(ii) Approved Prescription Drugs List*

**Module 7:**

**Communication Skills, Health Education and Promotion**

**Session 1: Fundamentals of Communication Skills.**

**Session 2: Consumer Rights.**

**Session 3: Health Education in the Context of ADDO Services**

**Session 4: Counseling and Effective Referral.**

**Session 1: Fundamentals of Communication Skills.**

PURPOSE:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

OBJECTIVES:

TIME:

***Handout No. 1***

# JOBS AND TASKS THAT A TRAINED ADDO DISPENSER WILL DO

In addition to other jobs agreed-on with the ADDO owner, the trained dispenser will do the jobs listed below:

1. 1.0. Applying positive dispenser / consumers, dispenser / owner and dispenser / colleague interpersonal relationships during the delivery of services at the ADDO.

* 1. 1.1. Interacting with consumers for provision of and/or soliciting support for quality services.

1.2. Interaction with ADDO owner on factors that influence the ADDO’s services quality.

1.3. Establishing and maintaining positive interaction with colleagues as contribution to ADDO’s services access.

1.4. Demonstrating a helping relationship during interaction with others.

1. 2.0. Upholding and fulfilling verbally and non-verbally, consumer’s rights and expectations of the ADDO and dispenser.

* 1. 2.1. Assuring the consumer generally and by age where appropriate the right(s) to:
	2. • Information
	3. • Choice
	4. • Confidentiality
	5. • Dignity
	6. • Continuity
	7. • Access
	8. • Safety
	9. • Privacy
	10. • Comfort
	11. • Opinion

* 1. 2.2. Assuring known/expressed consumer’s expectations of the ADDO and dispenser that reflect professionalism:
	2. • Technically up datedness
	3. • Guiding after and during therapy or care that accompanies the primary treatment e.g. STI treatment, post-partum consumer and post-diarrhoea treatment of an under 5 years old.
	4. 2.3. Ensuring support of the community (non-consumers) to the ADDO versus ordinary Duka la Dawa Baridi (DLDB):
	5. • Identify significant potential supporters.
	6. • Explain the new service and approaches at the ADDO versus DLDB.
	7. • Agree on type of support needed and informal monitoring approach.
	8. • Collaborating with non-consumers in advocating the ADDO at various forums in the community.

1. 3.0. Planning, conducting and evaluating one-to-one consumer’s health education on common illnesses and/or health related matters encountered during the ADDO service.

* 1. 3.1. Planning in anticipation of common consumer’s health education issues.

3.2. Impromptu planning for a consumer’s health education on drug(s) he/she is purchasing.

3.3. Conducting and evaluating a health education session on use of drugs for ensuring compliance, and handling side effects.

3.4. Helping a consumer accepts a drug or makes a decision that will contribute to treating his/her illness or receiving the health he/she needs.

1. 4.0. Counselling consumers on drugs, contraceptives and health matters using GATHER approach (**G**reet, **A**sk, **T**ell/explain/discuss; **H**elp, **E**xplain/provide information or instructions; **R**eturn (discuss follow up date or referral).

* 1. 4.1. Use GATHER in the ADDO service context.

4.2. Help consumers make decisions during difficult situations (e.g. when stubborn or for un-solicited but critical services).

 5.0. Strengthen the approach for referring consumer’s receiving service or requesting to be served for a service that is legally or technically beyond the ADDO dispensers’ scope of work.

* 1. 5.1. Prepare a referral slip that is dated, identifies referral source and service site and is signed, if applicable.

5.2. Make oneself available for more assistance in case of need during the referral.

1. 6.0. Using ADDO records on recommended consumer services provided for developing consumer education messages.

* 1. 6.1. In collaboration with the ADDO owner:

* 1. • Develop/modify ADDO service records.

• Identify health messages for sharing with community/consumers.

• Post simple messages where consumers can read or distribute the messages as needed.

* 1. 6.2. Simplify relevant instructions that accompany drugs that are sold to consumers.

***Handout No. 3***

#

# UNIT GOAL

To provide information on common illnesses and dugs used in the Accredited Drug Dispensing Outlets (ADDO) through strengthened verbal and non-verbal communication skills.

# GENERAL/UNIT LEARNING OBJECTIVES

By the end of the unit, extra curriculum time and field work the participant, based on facilitators’ guide and recommended standards, will be able to:

1. 1. Develop a common understanding of the objectives, training approach and activities.

2. Establish/strengthen and maintain positive interpersonal relationships with consumers, owner of the ADDO and colleagues.

3. Uphold consumers’ rights during interactions with them and through maintenance of the ADDO environment.

4. Make referrals that consumers are likely to follow.

5. Conduct one-to-one health education sessions on drugs used and common illnesses encountered in the ADDO’s service delivery.

6. Apply GATHER approach in counseling consumers to help them make decisions on relevant medicines or drugs including hormonal and non-hormonal contraceptives.

7. Use records on recommended services for developing consumer education messages.

8. Use a dynamic Skills Application Plan to utilize and promote retention of knowledge and skills acquired during the training.

***Handout No. 4***

### SESSION 1: GETTING STARTED

### SESSION OBJECTIVES

By the end of the session the participant will be able to:

1. 1. Address team members by their preferred names.

2. Identify own strengths and limitations based on a Self-Assessment Questionnaire.

3. Use objectives of the unit as individual guide for learning and self-assessment.

4. Explain the units’ activities for learning and training methodologies used.

***Handout No. 5***

**CHARACTERISTICS OF ADULT LEARNING**

1. **1.0. Introduction:**

The term “adult” in these notes applies to any consumer who is undergoing medical care including counseling and health education and taking of medicines. He/she is relying on himself, primarily, for correctly following the care provider’s guidance on that car.

The methods and other processes used in this training seek to apply the characteristics of adult learning.

**2.0. How adults learn:**

* 1. 2.1. Adults learn

* 1. 2.1.1. If their learning needs and interests are taken into consideration.

2.1.2. If they will use what they learn immediately after the learning.

2.1.3. If they participate actively in the learning.

2.1.4. If they feel respected, trusted, are listened to and make their own decisions or choice in order to achieve learning.

2.1.5. If their experience is applied in what they are being helped to learn and what they are learning is related or linked to their real-to-life work or situations.

2.1.6. If the environment in which they are learning or at work motivates them.

2.1.7. Through sharing experiences.

2.1.8. Where there is flexibility.

2.1.9. If they are in charge of their learning, but the facilitator assist them to acquire new knowledge, skills and attitudes.

***Handout No. 6***

**EXPERIENTIAL LEARNING CYCLE (ELC)**

**Introduction**

The seven steps ELC used in the Dispensers’ training is one of approaches of applying adult learning assumptions.

**Benefits of ELC**

Benefits of applying the ELC in training include but are not limited to:

1. 1. Builds on the participants/learners’ experience and entry knowledge, skills and attitudes.

2. Participatory and involves individual and group of participants/learners.

3. Incorporates on-going evaluation of the learning of the individual participant.

4. Helps the learner keep relating the new or updated knowledge and skills to his/her work or life situation.

5. It is a source for identifying learning’s or difficulties which the participant will plan to use or solve in his/her work situation.

***Handout No. 7***

**SESSION 2: ESTABLISHING AND MAINTAINING INTERPERSONAL RELATIONS IN ADDO SERVICES**

 **Specific Objectives**

By the end of the session the participant will be able to:

1. 1. List situations during ADDO service in which IPR are relevant.

2. Share benefits to the ADDO service and of IPR among dispensers and consumers, owners and inspectors.

3. Identify behaviours or actions and feelings which indicate:

* 1. • Positive or negative IPR and
	2. • Their effects on ADDO service

1. 4. Demonstrate ability to use verbal and non-verbal communication / IPR skills during the following interactions:
	1. • Dispenser / Consumer
	2. • Dispenser / Owner
	3. • Dispenser / Colleague
	4. • Dispenser / Inspector of ADDO service

***Handout No. 8***

 **SESSION 2: INTERPERSONAL RELATIONSHIPS (IPR) IN ADDO SERVICES**

**1.0. Why discuss or learn about IPR in ADDO services**

1. 1.1. IPR is one of several factors that influence the quality of a service; consumers or clients are attracted to or discontinue a service where they feel IPR are negative.

1.2. Many satisfied consumers help ADDO service grow.

1.3. Dispensers interact with their peers in their own or referral sites/services, with the ADDO owners, consumers, supervisors and community at large. Each person likes to be treated well by another in order for a particular service to grow.

1.4. Positive IPR contribute to job satisfaction and uninterrupted service.

1.5. Contributes to meeting expectations of consumers, dispensers and owners of your area (Reference: Focus Group Discussion in 3 Districts of Ruvuma 2002).

**2.0. Some benefits of establishing and maintaining positive IPR in ADDO services**

1. **2.1. Generally:**

* 1. 2.1.1. As indicated in paragraph 1 above.

1. **2.2. Between Dispenser and Consumer(s)**

* 1. 2.2.1. Consumer trusts and listens to the dispenser during communication on drugs or relevant illnesses.

2.2.2. Through appropriate use of IPR (communication or facilitation) skills, the dispenser collects adequate data from the consumer to guide the care he/she provides.

2.2.3. Consumer feels his/her needs and rights are addressed by the dispenser.

2.2.4. Openness and transparency prevails even in cases of shortage or expiration of drugs and other challenges in the ADDO service.

1. **2.3. Dispenser/Owner:**

* 1. 2.3.1. Working atmosphere is conducive for:
	2. • Openness, transparency
	3. • Taking into considerations the needs of the dispenser or owner without reducing quality of service
	4. • Going out of the ordinary when needed but maintaining the goals or plans made for enhancing quality service.

* 1. 2.3.2. Dispenser and owner are clear of each other’s roles and responsibilities in ordinary times and emergencies.

1. **2.4. Dispenser/Inspector**

* 1. 2.4.1. Dispenser becomes cooperative during the Inspector’s visit and in relation to follow up activities after the visit.

2.4.2. Dispenser views the Inspector’s visit as an opportunity for learning or problem solving.

2.4.3. Inspector uses the opportunity to provide supportive supervision (opposite of checking “wrongs”).

2.4.4. Clarity of roles of Inspector is achieved.

1. **2.5. Dispenser/Colleague**

* 1. 2.5.1. Consumer trusts and listens to the dispenser during communication on drugs or relevant illnesses.

2.5.2. Team approach to handling problems occurs. E.g. when new drugs enter the market.

2.5.3. Sharing of interesting professional activities may occur.

2.5.4. Consumers that are referred are likely to reserve appropriate service.

1. **2.6. Dispenser / Community at large**

* 1. 2.6.1. Community advertise service for ADDO and provider.

2.6.2. Community take the ADDO as one of services they must support.

2.6.3. Community help to easily establish the service or solve problems.

***Handout No. 9***

**EFFECTS OF POSITIVE OR NEGATIVE IPR ON ADDO SERVICES**

**1.0. VALUES CLARIFICATION (VC)**

1. **1.1. The Concept**

Values clarification is a process which helps individuals to:

* 1. • Think carefully about their feelings regarding a particular idea or subject THEN
	2. • In their mind, prioritise the feelings AND THEN
	3. • Choose the feelings they can share with others BECAUSE THEY
	4. • Are ready to “face” the consequences of sharing them. THEN
	5. • Share these feelings with others.

1. **1.2. “Rules” of the VC Exercise**

* 1. 1.2.1. All ideas shared are correct. There are no right or wrong feelings.

1.2.2. Opinions are personal. Everyone should respect and accept other ideas. They are honestly shared. Otherwise the VC will be unsuccessful and objectives will not be achieved.

1.2.3. Facilitator guides the individual(s) or groups who shared to discuss the ideas in relation to set objectives. He/She uses documented VC strategies/approaches.

***Handout No. 10***

**VALUE CLARIFICATION (VC) EXERCISE**

On Interpersonal Relationship in ADDO services.

 **VC STRATEGY:** Completing Statements

1. 1. When I have a long queue of consumers it takes me at least \_\_\_\_\_ minutes per person to explain the use of a drug.

2. When teenage men or women ask for contraceptives I \_\_\_\_\_\_\_\_\_.

3. Due to difficulties of procuring drugs for my DLDB\*. I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the expiry date on a few drugs.

4. When the owner / or inspector or consumer questions me about a certain practice I do, I find the best way to clear the problem is to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

5. Working hours of the DLDB are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

6. Community leaders near my DLDB do not have to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. When a person insists on purchasing a drug they know by trade name and I have one with genuine name I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 NB: \*DLDB is Duka la Dawa Baridi or the shop at which drugs and other medical supplies are sold. Once the DLDB has a successfully trained staff it becomes an Accredited Drug Distribution Outlet (ADDO).

***Handout No. 11***

**PARTICIPANTS PERSONAL JOURNAL**

 **1.0. Date**

**2.0. Session Title**

1. 2.1. Major Learnings

2.2. How best to make the learning applied at my work.

2.3. Major problem(s) I may encounter in applying the learning.

2.4. Resources (people, materials) in addressing the problem.

**Instructions**

1. 1. Complete your journal every day.

2. By the second day select priority learnings or problems for your 12 month draft action plan.

3. Use the priority learnings and problems to complete your Skills Application Plan.

 ***Handout No. 12***

**INTERPRSONAL RELATIONSHIPS IN ADDO SERVICES**

1. **1.0. Introduction**

The skills which are necessary for establishing or maintaining IPR are the same which are referred to as communication or facilitation skills. Some of these skills are said (verbal) and others are identified through non-use of words or body language. These observable skills are also referred to as non-verbal communication skills.

**2.0. Verbal and non-Verbal Communication (IPR) Skills/Actions**

* 1. **2.1. Verbal Skills**

* 1. 2.1.1. Use “I …………..” rather than “You ……………” statements. E.g. I understand you to say; I am confused when you said NOT ‘You did not explain well”, “You confuse me”.

2.1.2. Use encouraging words.

E.g. Tell me more; go on, Aha, Yes.

2.1.3. Respond to non-verbal communication of the person talking with you. E.g. when he/she shows confusion, ask “Have you any questions or is there something we have discussed so far that I need to clarify?

2.1.4. Paraphrase or summarise what you have heard.

2.1.5. Ask open-ended questions using “What, When, How.”

2.1.6. Further use closed questions to start an idea but follow it with open ended questions.

2.1.7. When applicable, tell the other person that you will record the discussion.

* 1. **2.2. Non-Verbal Communication Skills**

* 1. 2.2.1. Listen actively. Signs of listening actively include:
	2. • Ensuring culturally acceptable eye contact.
	3. • Avoiding looking at watch
	4. • Avoiding interrupting when the other is speaking
	5. • Ensuring no interruptions of any kind from “third” persons or phones.

* 1. 2.2.2. Show you care and want to help or solve the problem if applicable e.g. Say ‘POLE” as needed. Use appropriate tone of voice.

2.2.3. Be respectful regardless of gender, age, race or creed.

2.2.4. Smile, shake your head to show you are listening or agreeing with his/her point.

2.2.5. Put aside your personal feelings about a subject e.g. do not show you are disgusted with a particular idea or practice of the person you are talking with.

2.2.6. Provide privacy and confidentiality.

* 1. (a) ***Privacy*** can be provided by:
	2. • Being in a place when others cannot see (visual privacy) AND
	3. • Talking softly enough to be heard by the person concerned only (auditory privacy) OR
	4. • Being both visual and audio-privacy.

* 1. (b) ***Confidentiality*** is when the consumers’ personal information (written or spoken) is not shared with other people or exposed so that an authorized person can read it.

* 1. 2.2.7. Demonstrate professionalism in dress, or how you maintain your drugs or pack them for consumers. Be sober.

2.2.8. Be creative in enabling a quick but effective service and reduce long ques (lining up of consumers waiting to be served).

2.2.9. Show accepting even if attitude you differ with the consumer or other person.

 ***Handout No. 13***

**PRACTICE USING VERBAL AND NON-VERBAL COMMUNICATION SKILLS**

**ROLE PLAY GUIDES**

**Objective 2.4: Demonstrate ability to use IPR Skills**

1. 1.0. In groups of 3.

2.0. Each person will act as:

* 1. • Sender (the one speaking)
	2. • Receiver (the one being spoken to)
	3. • Observer (the one listening and making notes while two are discussing)

1. 3.0. All use as many verbal and non-verbal communication skills has you can.

4.0. One round will take 10 minutes only

* 1. • 3 minutes: agree on subject
	2. • 5 minutes: sender and receiver talk (Dispenser and consumer – “First round, second round: Dispenser / colleague and 3rd round: Dispenser/Owner)
	3. • 2 minutes: share immediate feelings of sender and receiver about the exercise (say one to three words only to show how you feel – I fell ………..)
	4. • 5 minutes: observer provide feedback on strengths or limitations observed on use of the IPR skills.

1. 5.0. Examples of subjects (choose any and use in one round only or any other you have in relation to you work in ADDO’s.
	1. • Consumer has stomachache after self administered Aspirin.
	2. • Dispensers’ colleague gave medication which was inadequate for a full course
	3. • Dispenser is justifying his/her request from owner to attend the 4 weeks’ next ADDO training or seminar.
	4. • Other subject of your choice for the same pairs (dispenser/customer, dispenser/colleague and dispenser/owner).

**Session 2: Consumer Rights.**

PURPOSE:

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OBJECTIVES:

TIME:

***Handout No. 14***

**SESSION 3: APPLYING CONSUMERS RIGHTS DURING ADDO SERVICE DELIVERY**

**CONSUMERS’ RIGHTS DURING ADDO SERVICE DELIVERY**

**Specific Objective’s:**

By the end of the session the participant will be able to:

1. 1.0. Share 10 rights of consumers as they are served in the ADDO health service.

2.0. Demonstrate ability to uphold consumers’ rights.

3.0. Demonstrate ability to make a referral which the consumer is likely to follow.

***Handout No. 15***

**SESSION 3: APPLYING CONSUMER RIGHTS DURING ADDO SERVICE DELIVERY**

**CONSUMER RIGHTS (Adopted from IPPF 1993)**

1. **1.0. INTRODUCTION**

One way of providing quality ADDO services is to ensure that the rights of consumers are applied by the dispenser and all other team members in the ADDO. Each member contributes to the total service. Consumers should be educated about these rights appropriately in order to enhance participation in the ADDO services.

**2.0. CONSUMER RIGHTS**

Ten consumers (clients’ rights have been identified based on various research and in this case the one conducted by the International Planned Parenthood Federation (IPPF) in early 1990’s.

These are briefly explained below. **(You may prepare a poster of these rights for you and your consumers’ reference).**

**2.1. INFORMATION**

* 1. • Consumer obtains clear, relevant to his/her needs, up to date and not over loaded.

* 1. **2.2. CHOICE**

* 1. • Choice is facilitated by facts. For example the dispenser explains correct use of drugs, side effects, and actions the consumer should take side effects occur, the and help that the dispenser provides in case of any of these problems happen.

• The dispenser helps the consumer to choose the actions he/she wishes to do so after providing facts. He/she does not coerce/force the consumer, in any way.

**2.3. ACCESS**

Consumer receivers and discusses with dispenser information / education or counseling about drugs and common illnesses regardless of consumers’ sex, age, socio-economic status, creed, religious affiliation, marital status or location.

**2.4. SAFETY**

In the ADDO service, safety of consumer is maintained or achieved through ensuring that consumer; for example:

1. • Understands correct dosage, side effects and how to manage them.
2. • Is given unexpired drugs and proper storage of drugs is practiced of drugs is practiced
3. • Clearly understands the drugs that interact negatively with the ones he/she is taking.
4. • Obtains relevant information for emergencies that may occur as result of taking or having medication.
5. **2.5. PRIVACY**

Consumer is provided with oral, auditory privacy if possible and privacy in terms of “being seen” by third persons during counseling, education and purchase of drugs.

**2.6. CONFIDENTIALITY**

Health worker assures that any personal information will not be shared with anyone else even a parent/guardian in case of youth. This information may be in the form of consumer record, or spoken/verbal.

**2.7. DIGNITY**

Consumer is treated or served with courtesy. Consideration and attentiveness regardless of sex, age, creed, marital status, socio-economic status and other factors stated under “ACCESS” are practiced by the dispenser and other staff.

**2.8. COMFORT**

Consumer is made to feel comfortable whem receiving services. For example consumer(s) is provided with shaded area, seating if he/she has to wait and is spoken to in a way that does not embarrass him/her.

**2.9. CONTINUITY**

Consumer is provided with services in a way that encourages him/her to return to the ADDO and even recommend others to choose that ADDO. E.g. when he/she obtains clear instructions on drugs and reasons for the way they are taken or reasons for the precautions; or a full course of medication is made available even on special credit (as is done currently in some DLDB).

**2.10 PINION**

Consumer is given opportunity to express his/her views on the service offered. E.g. during purchasing of the dugs or counseling or education.

***Is some cases, a suggestion Box.***

Is placed where all consumers can see/reach. The dispenser or owner encourages the consumers to put their suggestions or concerns in the box. Hence once a month, the comments are read analysed and actions taken to improve the service. When possible, the consumers are thanked for the comments and told how they have been used.

***Handout No. 16***

**SESSION 3: APPYING CONSUMERS RIGHTS DURING ADDO SERVICE**

**STORY OF MARY HASSAN AT DAWA KAMILI SHOP**

Mary Hassan is a 16 year old. Mother of Simba a three month old boy. She is an ex standard 6. Mary came from Ngoni village, about one hour’s walk to Dawa Kamili Shop. She arrived at the shop with her baby on the back, looking tired. Her doctor had prescribed the following:

1. • Fersolate 200 mg b.d.
2. • Folic Acid 1 tablet daily

On arrival at Dawa Kamili shop Mary found that Mpendwa Andrew, the dispenser was busy receiving new stock of supplies from Dar es Salaam. He greeted Mary Hassan and asked her to wait until he finished receiving and storing the supplies. This task took one hour. Then were no Fersolate tablets. Only Folic Acid tablets were available. So Mpenda gave Mary those tablets and said “Umeze kama ulivyoagizwa na Daktari wako.” He then wrote name of tablets and dose and direction on a pill packet. There were no marked boxes at Dawa Kamili Shop.

Mary reached home and started taking Folic Acid tablets every second day to make them go a long way.

**Purposes of the Story:**

1. 1. To identify the consumer rights which were applied and those not applied during Mary’s visit.

2. To suggest actions/guidance through education or counseling which Mpendwa should have provided to Mary given the details about her in the story.

**Instruction**

(a) Read the story

1. (b) Based on the content of the story
	1. - List the consumer rights which Mpenda Andrew upheld
	2. - Suggest two or three actions that reflect upholding the consumers rights by a health provider/dispenser.

(c) Present your group product the class.

**References:**

1. 1. Consumers Rights During ADDO service

2. Experience of Participants.

***Handout No. 17***

**SESSION 3: APPLYING CONSUMER RIGHTS DURING ADDO SERVICE DELIVERY**

**Session Objectives**

By the end of the session the participant will be able to:

1. 1. Share 10 Rights of the consumers while they are being served in a health (ADDO) service.

2. Demonstrate the ability to uphold Consumers Rights.

3. Demonstrate ability to make a referral, which the consumer is likely to follow.

***Handout No. 18***

**SESSION 3: APPLYING CONSUMERS’ RIGHTS DURING ADDO SERVICE**

**Small Group Work on Objective 3.1.2:**

**Demonstrate ability to uphold Consumers’ Rights**

**1.0. DYADS’ ACTIVITY**

1.1. Allow the dyads to:

1. • Think up a real-to-life situation that is relevant to the action each dyad has been given.
2. • Prepare the actions the small group will do to show upholding at least 2 Consumer Rights.

1.2. Before presenting their demonstration/simulation the dyad should:

1. • Describe the situation
2. • Then simulate.

1. **2.0. GUIDE FOR OBSERVERS/THE REMAINING 7-16 PARTICIPANTS**

* 1. 2.1. Read the 4 Actions and behaviours on Newsprint.

2.2. Individually propose to yourself:

* 1. • Which (two at least) of the Consumer Rights must be applied in each action or behaviour listed on N/P.

* 1. You will compare your suggestion with what you observe during simulations/demonstration by your peers (the dyads).

2.3. During simulations

* 1. • Use the 10 consumer rights in your manual as checklist to select which right each dyad is presenting.

* 1. 2.4. After simulation, share your observations.

**Session 3: Health Education in the Context of ADDO Services.**

PURPOSE:

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OBJECTIVES:

TIME:

***Handout No. 20***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Session Objectives**

By the end of the session the participant will be able to:

1. 1. Share reasons for providing consumer health education as part of ADDO service.

2. Recognize the differences between the terms:

* 1. • Teaching and learning
	2. • Health education and counselling

1. 3. State what is observed in an ADDO service if there is “Effective Communication between the service provider and consumer.”

4. Establishing an maintaining a helping relationship between ADDO health provider and consumers, using a visual.

5. Cite aids that effectively help consumer understand use of drugs or understand health conditions.

6. Identify the consumers’ health needs as part of the health education process.

7. List factors that can be a barrier to meeting consumer needs:

* 1. • Within the dispenser
	2. • Within the consumer
	3. • In the community

1. 8. Plan, conduct and evaluate impromptu one-to-one teaching/health education sessions on drugs, in simulations.

9. Strengthen the information, discussed by the prescriber, of the drugs and common illnesses and symptoms encountered by ADDO dispenser.

10. Identify elements of a guide for addressing consumer – solicited service on common illnesses and symptoms.

11. Conduct health education on illnesses and symptoms for which the consumer is purchasing drug(s).

12. Answer the questions for developing information or messages for consumers.

13. Demonstrate ability to develop messages on selected consumers’ problems.

14. Explain how to process of testing and refining the messages developed will be refined.

***Handout No. 21***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICES**

**Definition of Terms and Phrases**

The definitions provided are provided to help have one meaning that we use during the ADDO Dispensers’ Communication Skills Training.

**Health Education**

1. • A process of providing information to a consumer according to his/her needs in order to assist the consumer to

* 1. (b) Correctly and consistently use drugs or relate the action of drugs to his/her sickness or problem.

(c) Or convince his contact (in case of STD/HIV/AIDS) to seek medical help.

1. • Health education that is successful changes the behaviour of the consumer.

**Teaching**

1. • This is the process of helping another person learn a new knowledge or skill. In ADDO context “teaching” will be considered similar to “Health Education” and “Explaining instructions written about drugs or illnesses.”

NB: Reality-based teaching is needed by consumers, as it can be immediately used/applied and meets their needs at a particular time. Otherwise if the consumer does not see value of the teaching, he/she will not listen and may make misconceived statements from it.

**Learning (In Health Service/ADDO Setting)**

1. • This is the result of an effective health educational or conselling session. The consumer practices and shares with others the ideas he/she obtained from the ADDO service provider or from the information distributed or posted at ADDO.

 **Effective Communication**

1. • The condition which is reached through following the guidelines/principles of communication, correct/appropriate use of verbal and non-verbal communication skills while upholding consumers rights.

NB: *Principles of Effective Communication include* but are not limited to:

1. • Providing a comfortable setting with few distractions.

• Focusing on the listeners’/consumers’ needs, interest and health status.

• Being brief and avoiding “overload” of information.

• Using words that are familiar to the listener/consumer.

• Using a two way communication (listening as well as speaking and allowing the consumer to talk during the discussion).

***Handout No. 22***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Reasons for improving Consumer Health Education as part of ADDO services**

1. 1. Increased self-prescription and home care
	1. • Consumers’ and exposure to general functional education has contributed to ability to reducing visits to medical personal and self-treatment. Unfortunately many under-treat themselves, thus leading to resistance to drugs.
	2. • Some consumers share once course of medication apparently to save money or time for medical care. But do not come to receive the rest of the medication.

1. 2. Multiple cares of one patient/consumer
	1. • Some problems of multiple service providers or carersare:
	2. - Hurried or no explanation of the medicine or health condition is provided.
	3. - Assumption that the next provider will have or the previous one has explained to consumer the correct use of medicine and action on the symptom.
	4. • Some carers, in the “multiple carer group” have inadequate or no technical background to help consumer use drugs correctly.

1. 3. Team approach to care (including health education) is important for long term results in consumers’ health.
	1. • In a team approach to service delivery, every provider or carer has a special role to play. If it is not played the care of the consumer is negatively effected. Thus some of his/her rights may be not uphold (e.g. safety, information, continuity).

1. 4. It is also a legal responsibility or a way of adhering to Code of Ethics.

5. Since the drugs used have more than one trade name it helps the consumer to be reassured of similarity with another/others he/she may have been used to taking.

6. Competitive Business Environment

* 1. • An ADDO provider who provides clear health education gains respect of his/her consumers. Thus many attract many other consumers. DLDB’s would have fewer consumers.

1. 7. Drug manufactures imply participation of pharmacists (dispensers tool and directions in helping consumer understand use of drugs:
	1. • E.g. Re: Drug interaction: Consult your physician if you are regularly taking any other drugs.

1. 8. When a dispenser explains about a health condition in an ADDO, he/she is participating in integrated health service.

***Handout No. 23***

**SESSION 4: CODNUCTING HEALTH EDUCATION IS PART OF ADDO SERVICE**

**GUIDE FOR ESTABLISHING A HELPING RELATIONSHIP BETWEEN CONSUMER AND DISPENSER/HEALTH PROVIDER**

**1.0. Introductory Remarks**

This relationship may also be referred to as provider/consumer relationship.

This relationship which incorporates the positive IPR skills is crucial also to health education and counseling of consumers. Consumers will not be interested in learning from a dispenser or other health provider if they do not feel that dispensers care.

**2.0. Guide for establishing and maintaining a helping relationship and trust of a consumer(s).**

1. 2.1. Show respect
	1. • Treat the person as unique and worthwhile.

1. 2.2. Build trust
	1. • Be consistent in the way you deal with the consumer or care for him/her.
	2. • Act with integrity to help the consumer develop confidence in you and you abilities

1. 2.3. Accept the consumer
	1. • Show the consumer that you accept him/her, as he/she is show that he/she can be open and feel safe with you.

1. 2.4. Demonstrate caring
	1. • Show the consumer your interest and concern in him/her person problem.

1. 2.5. Be sincere
	1. • Make sure that what you say and do during interaction with the consumer, sends the same message to the consumer.

1. 2.6. Be an advocate for your consumer(s) (Be consumer oriented in what you do)
	1. • Advocate for consumers’ rights wherever you can do so.
	2. • Teach the consumers the 10 consumer rights and that when appropriate they should ensure these rights are applied during their care at the ADDO.

1. 2.7. Avoid making assumptions/obtain facts.

2.8. Understand yourself

* 1. • Ensure that your personal beliefs and values do not interfere with consumer care.
	2. • Recognize that you and consumers are likely to have differences of values, perceptions or views on particular subjects or practices.
	3. • Take a positive stand about how you will objectively handle specific care which is a challenge to your beliefs. E.g. Provide STI treatment and counselling to an adolescent and upholding his/her right to privacy, confidentiality, respect, access etc. even if you wish you did not provide the service. Or help a consumer who is “not good” at reading by explain facts with visuals until they have made a mental note and can repeat the information. Do not force them to read even if you like reading.
	4. • Continually self-evaluate your work and make improvements as needed.
	5. • Establish positive IPR always.
	6. • Choose the teaching methods which you can use comfortably and obtain positive results.
	7. • Establish and maintain non-judgemental attitude about consumers.
	8. • Make the work you do (e.g. Health Education) something that gives you job satisfaction.

1. **3.0. Using of verbal and non-verbal communication skills is one of the important keys to maintaining helping relationships.**

In addition to the communication skills listed on Session 2, other important skills are:

* 1. • Acknowledging and reassuring the consumers’ actions.
	2. • Allowing silences. This gives time for consumer to think about what you and him/her have discussed and what needs to be discussed further.

***Handout No. 24***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

 **AIDS THAT HELP CONSUMER UNDERSTAND USE OF DRUGS OR**

**HANDLE HEALTH CONDITIONS (IN ADDO CONTEXT)**

1. 1. Inserts in drug packages.

2. Visuals with health information e.g.

* 1. • Pamphlets, leaflets or posters from Ministry of health and NGO’s.

1. 3. Symbols written by prescriber e.g. 2x1 for two tablets once a day.

4. Cultural sayings or stories that may help quickly make consumers understand a particular point.

5. Examples from ordinary life e.g.

* 1. • Comparing the way a cistern empties and gets filled to getting the baby to breast feed until the breast is empty in order to maintain good milk flow.
	2. • The dispenser finds and uses relevant examples from life during explanation of drugs or illnesses

***Handout No. 25***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**SOME CONSUMERS HEALTH EDUCATIONAL NEEDS**

Since assessing the consumers’ needs is the first step in Health Education, some needs are described below.

These may contribute well or be barriers to the health education dispenser providers.

An individual consumer may have the following needs:

**(a) Special Needs:**

E.g. Language which he/she wishes information discussed with him/her to be used. This happens in Tanzania for foreigners or older rural generation.

**(b) Support Systems:**

E.g. People or person whose participation in the ADDO service will contribute to compliance of taking medicines. For homeless consumers, the dispenser should discuss who would help in use of drugs. That person should be involved. Alternatively creatively think up an approach that could at as the loveless consumers’ support system.

**(c) Health Expectations:**

The consumer may have different expectations of health or result of taking a particular drug. Hence it is important to find out when necessary. E.g. Consumer is obstinate about taking a particular drug or following a particular approach of drug taking. The dispenser will use counseling skill to help the consumer make decision that will contribute to effective care by ADDO and the doctors treating him/her. (Session 5) counseling on unsolicited service or in difficult moments.

**(d) Learning Needs:**

1. • The dispenser finds these out by asking consumer to say what he/she already knows or asking for questions or concerns key have if applicable.
2. • Misconceptions could be identified as learning needs.

**(e) Learning Readiness**

1. • As part of planning for a health education or counselling session, the dispenser or health worker should assess readiness for learning.
2. • If the client were very sick he/she would not be ready for long health education. Give him/her priority information AND AT AN agreed on time should be arranged for detailed health education.
3. **(f) Difficulty in seeing:**
	1. • Modify you teaching on drug use.

1. **(g) Difficulty in hearing:**
	1. • Use written material for them to read or to be helped to read.
2. **(h) Lack of Family Involvement:**
	1. • Talk to family and consumer alone or with people they respect.

1. **(i) Low Literacy Skills:**
	1. • Teach
	2. - Essential information only
	3. - One step at a time
	4. • Consumer repeat information discussed
	5. • Be creative in explaining points
	6. • Use simple language and consistent use of words

1. Consumers’ health education needs in ADDO setting must be assessed quickly e.g. by
	1. • Observation of consumers listening throughout since arrival of consumer
	2. • Asking questions
	3. • Conferring with escorts or guardians

1. Once the consumer’s needs are identified the dispenser and consumer could agree on:
	1. • Outcomes of the health education/what the consumer wishes to achieve or learn before returning home.

1. During impromptu health education some of the steps of assessing consumer needs may be:
	1. • Omitted or
	2. • Be observed over time
	3. • Assessed as part of the steps in Health Education process steps

***Handout No. 26***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**BARRIERS TO MEETING CONSUMER NEEDS**

 These are also factors that can interfere with learning (from health education and counseling) or compliance with what they are learning about drugs or illnesses.

**NB: FACILITATOR FINALISE THIS HANDOUT BASED ON THE SESSION’S PRODUCT**

**List of Barriers:**

1. **(a) Within the provider/dispenser**
	1. • Ignorance about importance of Health Education
	2. • Technical competence being inadequate
	3. • Time management problem
	4. • Religious affiliation sometimes
	5. • Lack of resources to do the job
	6. • Inadequate or no supportive supervision
	7. • Ignorance about where to refer

1. **(b) Within the consumer**
	1. • Extent of trust in health service / ADDO
	2. • Misconception and rumors
	3. • Pain, fear about his/her condition
	4. • Embarrassment and shyness to openly state the problem
	5. • Live too far from ADDO

1. **(c) Within the community at large**
	1. • Taboos and other cultural or gender oriented practices
	2. - E.g. in laws cannot be in the same meeting
	3. - Age groups which can take together
	4. • Beliefs in certain traditional medicines given to consumer despite, being on modern care

***Handout No. 27***

 **SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Guide/Steps on conducting Impromptu Health Education or Teaching during Sale of Medicines using GATHER approach**

NB: Use verbal and non-verbal comment skills as needed throughout the provider/consumer services.

1. **G**reet

1. • Welcome
2. • Make consumer comfortable; provide privacy
3. • Ask for and quickly review the prescription or verbal request

2. **A**sk and praise

1. • Assess consumers knowledge and feelings about the drug.
2. • Praise consumer and build on consumers’ knowledge

3. **T**ell/Explain

1. • Explain to consumer about the drug
2. • Dose, how to take it
3. • Side effects
4. • Contradictions/if relevant
5. • What to do to manage complications or side effects or emergency outcomes of taking the medicine
6. • Drug interaction with other drugs or foods or alcohol
7. • Specific/unique instruction e.g. storage, disposal of container(s), how to open the container or store drug for safety of children
8. • Using the inset if applicable
9. • Allow questions and answer fully using facts.

4. **H**elp

1. • Ask consumer to repeat information discussed. He/she can use the facilitators materials/visuals of applicable.
2. • Ask consumers about, how he/she will use the information learned from the session.
3. • Find out if you can discuss a matter that is coincidental to using the prescribed drug.

5. **E**xplain

1. • If the consumer is ready provide the health education/counseling.
2. • Give the course of drugs.
3. • Encourage consumer to clarify any concerns
4. • Respond appropriately
5. • Refer to appropriate referral site ensuring clarity of referral to consumer.

1. 6. **R**eturn
	1. • Invite consumer to return whenever he/she needs information or to purchase more drugs.
	2. • Thank and bid him/her farewell.

***Handout No. 28***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

 **GUIDELINE FOR USING VISUAL AIDS OBJECTIVE 4.1.10 AND SESSION 5**

1. 1. Visual aids must be SEEN by the consumer being given a health education or counseling
	1. • **HOLD** pamphlets or poster so that the consumer can see.

* 1. 2. When using drawings or a message you developed **ASK** what the consumer understands about the drawing or what is written BEFORE using it. Discard it if misunderstood.

* 1. 3. **TALK** slowly and articulate your words to help the consumer understand all what you are saying. Remember the consumer is looking at the visual and listening at the same time.

* 1. 4. **LOOK** at the consumer often as you talk to make sure he/she understands and follows what you are saying.

* 1. 5. **ASK** if there are questions before moving on to a different idea.

* 1. 6. **ISSUE** relevant visuals and explain the most important ideas in the visual.

* 1. 7.  **ENCOURAGE** the consumer to read him/herself or ask friend or child to read for him/her.

 ***Handout No. 29***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**MAIN IDEAS ON SELECTED COMMON ILLNESSES**

 **Purpose of the Ideas**

 • To help the dispenser use the ideas when applicable during:

* 1. - Health education session including when answering questions
	2. - Counselling consumers for services they solicit or the ones the provider/dispenser identifies as needed (unsolicited services)
	3. - To build on the ideas written in other chapters of the ADDO Participants’ Manual.

NB: The common illnesses presented in this document are those which were provided by dispensers during Focus Group Discussion in Songea and Mbinga Districts (2002). They are presented alphabetically for quick reference.

**1.0. Diarrhoea and Vomiting**

1. • Main danger is extreme loss of body fluids and the electrolytes.
2. • Caution avoids giving/taking anti-diarrhoeal medicines.
3. • What to do give ORS or plenty of fluids but in small amounts, until the patient is passing urine as he/she usually does.
4. • If a breastfeeding baby has diarrhea mother continue to breastfeed.
5. • Refer / report to health site if:
	1. - Diarrhea and vomiting becomes worse

**Signs of seriousness and worsening of the condition**

1. • Being very weak, restlessness and even losing consciousness
2. • Eye drawn in
3. • Difficulty in taking the drinks or drinking as a very thirsty person
4. • Skin over the lower abdomen recedes very slowly after lifting it
5. • Stool is blood stained
6. • Diarrhoea is accompanied by high fever (over 37.5oC)

**2.0. Chronic Problems of the Elderly e.g.**

1. **2.1. Heartburn**

* 1. • What is it

The backflow of stomach contents past the end of the food canal (Oesophagus)

• Why it occurs

Because there is weakness in muscles that close the food canal (lower oesophageal sphimeter) due to incompetence or other problem

1. **Symptoms**
	1. • Acid feeling
	2. • Bloated/full feeling after eating even a small amount of food.
	3. • Even after swallowing sensation of food remains stuck.

1. **Simple treatment and management**
	1. • Antacids
	2. • Eating small amounts of food more frequently then usual
	3. • Reduce the predisposing factor such obesity, tobacco use, and identified foodstuffs.

**3.0. HIV/AIDS**

**Main messages:**

NB: There are leaflets from NACP for ease of understanding by all consumers.

1. • Occurs mostly due to sex between men and women
2. • Ulcerated STI (open wounds) contribute to new HIV infections
3. • An infected person with care can live for many years
4. • Young women more vulnerable then adult women due to:

- Immaturity of the birth canal (especially at the junction of vagina and cervix

• Man are affected less than women

- Woman’s vaginal canal receives man’s seamen a “pool” area

• Can affect young and adult persons

• There is a period when an infected person’s test is negative (window period)

• HIV infected and non-infected persons must take antiretrovirals regularly if prescribed

**How to Manage**

1. • Refer to Voluntary Counselling Centre if known or to peers

**4.0. Infertility**

**What it is**

1. • Inability to conceive by at laest one year of manage in a situation where the couple has lived together. (Primary Infertility)
2. • Inability to conceive again after having had a pregnancy (Secondary Infertility)

**Management**

1. • Both husband and wife to be investigated
2. • Prevent it by:
	1. - Early treatment of infections in the organs responsible (men and women)
	2. - Infection control where women deliver
3. • Treatment according to results of investigation

**5.0. Respiratory Infections**

1. **5.1. Symptoms may be**
	1. • Blocking of the nose
	2. • May have a cough or nose bleeding
	3. • Fever
	4. • Sore throat
	5. • Headaches
	6. • A child may also have diarrhea
	7. • Loss of appetite

1. **5.2. Management**
	1. • Symptomatic treatment e.g. use of anti fever tablets according to age
	2. • Give plenty of fluid
	3. • Refer to health site of not improving of fever more than 37.5

1. **6.0. STI (Sexually Transmitted Infections)**

* 1. **6.1. Types**
	2. • There several types which are identified by:
	3. - Being ulcerative
	4. - Non-ulcerative

1. **6.2. For simplicity 4 types of symptoms are described:**
	1. • Vaginal, cervical or urethral discharge (men and women)
	2. • Cover abdominal pain (women)
	3. • Ulcer in private parts (Genital ulcer disease)
	4. • Ulcer disease (men and women) e.g. multiple blisters on sex organs

1. **6.3. Management of STI**

* 1. 6.3.1. Medical care at a health site.

6.3.2. Abstain from sex or use condom if appropriate until treatment is over.

6.3.3. Get the contact(s)/sex partners to receive treatment confidentially (no need to show with whom he/she is having sex).

* 1. • Use verbal and non-verbal communication counseling skill to help partner accept go for treatment.

* 1. 6.3.4. Health provider apply the 4C’s in supporting the management of STI:

* 1. (a) **C**ounseling
	2. - To help solve STI related problems
	3. - Emphasize importance of the other C’s using counseling skills

* 1. (b) **C**ompliance to treatment - explain importance of this and prevent future resistance to medications used for follow up as per health workers guidance
	2. - Return to health service as asked by health provider, even if feeling well.

* 1. (c) **C**ondoms
	2. - Give condoms to consumer if abstinence is not an option he/she can use
	3. - Demonstrate use of condoms
	4. - Ensure consumer can return demonstrate use of condom
	5. (d) **C**ontact treatment
	6. - Get the contact(s)/sex partners to receive treatment confidentially (no need to show with whom he/she is having sex)

* 1. 6.3.5. Aim at preventing future occurrence:
	2. (a) Discuss safe sex practices which consumer can accept
	3. (b) Provide community education or help distribute leaflets from Ministry of Health on STI
	4. (c) Teach that a STI infected person can be without symptoms but can infect others.

 **7.0. TUBERCULOSIS (TB)**

* 1. **7.1. What is it**
	2. • An infection caused by bacteria most commonly infecting the lungs. It is commonly spread through air from a person with TB in sputum
	3. • Many people have been infected with TB but do not become sick.

* 1. **7.2. Factors that contribute to TB infection**
	2. • TB may develop after stress or at times when the body is undergoing change or fighting another infection such as HIV, onset of Diabetic Mellitus (Kisukari), during some medications, or in adolescence or old age.
	3. • Over crowding

* 1. **7.3. TB symptoms in adult**
	2. • Are difficult to diagnose
	3. • Major symptoms can occur 1-6 months after infection e.g.
	4. - Swollen glands
	5. - Fluid in lining of lungs
	6. - Meningitis (Infection in cover of brain)

* 1. **7.4. Presence of HIV makes TB become worse quickly**

**7.5. Individuals at risk for TB infection**

* 1. • Anyone in contact with a TB patient
	2. • Anyone with diabetic, cancer, alcoholism, poor nutrition, treatment with drugs which contain cortisone etc.
	3. • People living in prisons or living in crowded places, drug users in the streets
	4. • HIV positive persons

* 1. **7.6. Management**
	2. • Refer to health site
	3. • Treatment at special TB sites and special program called DOTS get well effectively
	4. • Visit Voluntary Counselling and Testing services to help screen for HIV and know status and how to live positively with HIV.
	5. • Adhere to treatment you can be cured

* 1. **7.7. Prevention**
	2. • TB vaccine at birth
	3. • TB infected persons avoid spitting carelessly
	4. • Improved nutrition
	5. • Improved situation in prisons
	6. • Avoid HIV, Test for HIV infection
	7. • Avoid diseases that are associated with TB where possible.
	8. • Avoid prolonged or unsupervised – by doctor drugs that contain cortisone.

1. **8.0. TYPHOID**

* 1. **8.1. What is it**
	2. • An infection of the “stomach” (gut) that affects the whole body
	3. • It is spread from stool/faeces-to mouth in contaminated food and water

* 1. **8.2. Symptoms/Signs**

**First week**

* 1. • May progress over a period of 3 weeks
	2. • Begins like a cold or flue
	3. • Headache and sore throat
	4. • Rising temperature up to 40oC or more
	5. • Pulse gets slower when the fever goes down
	6. • Sometimes, vomiting, diarrhea or constipation

* 1. **Second week**
	2. • High fever, slow pulse
	3. • Few pink sports on body
	4. • Trembling
	5. • Person cannot think clearly or make sense
	6. • Weakness, weight loss, body loses of fluids
	7. **Third week**
	8. • If no complications all symptoms go away

* 1. NB: Over time and perhaps due to self medication, typhoid signs seen to be getting unclear. Laboratory results are best for diagnosing.

**8.3. Management**

* 1. • Report to and follow advice of health service provider

* 1. **8.4. Prevention**
	2. • Wash hands strictly before food, cooking or preparing food
	3. • Eat salads which are well cleaned and soaked in disinfectant such as Milton as per instruction soaked on the container
	4. • Use latrine, make available water for washing hands

 ***Handout No. 30***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Mini Case Studies/Situations for Health Education Simulations (Objective 4.1.9)**

NB: Time for conducting each Health Education Session: 10 mins.

**1.0. Topical Drug (Drug for skin disease)**

Mama Tatu has been suffering from soreness in between her toes. Her doctor prescribed two Anti-fungal cream tubes. She comes to your ADDO. She wants to buy only one tube.

**Instruction**

1. • Plan and conduct health education with Mama Tatu.
2. • Follow guidelines for Impromptu Health Education on Drugs as applicable.

**2.0. Oral Drug**

1. • Baba Tito has come to buy SP for malarial treatment. But on arrival he tells you that he really wants to be sure of the “many problems which SP causes” before buying and using SP. He still has a fever of more than 37.5oC.

**Instruction**

1. • Plan and conduct a health education session with Baba Tito
2. • Follow the guide on Impromptu health education as applied to Baba Tito’s problem.
3. **3.0. Parenteral/Injectable Drug**

Esther Simba is a 16 year old girl who has an abscess on her nail. She has come to purchase a course of injectable broad spectrum antibiotic. She mentions to you that she really fear getting injections

**Instruction**

* 1. • Plan and conduct a health education with Esther
	2. • Follow the guide on Impromptu Health Education to help solve Esthers’ problem

1. **4.0. New Family Planning Practice**

Mama Fatuma is the Village Chairperson. She has heard that in your shop you have included Health Education Sessions with consumers. Now she has come to discuss with you about a rumor that Emergency Contraceptive Pills (ECP) hurt the unborn child and cause abortion.

**Instruction**

* 1. • Hold an impromptu health education session with Mama Fatuma with aim of:
	2. - Explain how Emergency Contraceptive Pills (ECP) is used
	3. - Explaining why does not hurt the unborn child and cause abortion
	4. • Follow guide provided by the Facilitator on explaining ECP.

***Handout No. 31***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**GUIDE FOR EXPLAINING EMERGENCY CONTRACEPTIVE PILLS (ESP) USING GATHER**

**1.0. G**REET

1.1. Create rapport/establish atmosphere for free flowing information

1. • Greet in a culturally accepted way
2. • Provide privacy and confidentiality
3. • Provide seating
4. • Use verbal and non-verbal communication skill throughout the session

**2.0. A**SK

1. 1.1. Find out the consumers’ knowledge or what he/she has heard about the ECP.

1.2. Praise for positive points

**3.0. T**ELL

3.1. Explain ECP in a building-into consumers’ idea - manner

1. • Which pills are used as ECP and show them to consumer
2. • When used to ensure they work
3. • Effectiveness
4. • Advantages
5. • Disadvantages
6. • Why they should not be used as regular FP

3.2. Check understanding on ECP

1. • Ask what is clear and not clear
2. • Allow consumer to ask questions

3.3. Add omissions or correct missing information

4.0. **H**ELP

1. 4.1. Ask how the consumer will use the information discussed.
2. 4.2. Help her make decision to select one type of ECP
3. 4.3. Issue the ECP

1. 5.0. **E**XPLAIN

* 1. 5.1. Review important points of using selected pills
	2. 5.2. Issue the pills

1. 6.0. **R**ETURN
	1. 6.1. Give open invitation to start family planning or with concerns
	2. 6.2. Record the issue which bought appropriate messages for the community or individual
	3. 6.3. Thank the consumer bid farewell

***Handout No. 32***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Checklist / Procedure on Planning, Conducting and Evaluating Health Education Session in ADDO Service on Drugs: Using GATHER**

**Instructions**

1. 1. During role play mark appropriate column on right with a tick []

2. During Facilitators’ or Supervisors’ led follow up or skills assessment use tick []

* 1. • Calculate averages of points attained.

• Use the result to discuss with Dispenser and provide on the job guidance and plan for improving weak areas.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|  1.0.  |  **G**REET Helping consumer feel relaxed and open (Creating rapport)  |   |   |   |   |
|   |  1.1. Using verbal and non-verbal communication skills throughout the discussion (at least 3 of these skills)  |   |   |   |   |
|   |  1.2 Culturally acceptable greeting or remark(s)  |   |   |   |   |
|   |  1.3. Offering available seating  |   |   |   |   |
|    |  1. 1.4. Ensuring of other persons cannot see or overhear the discussion
 |   |   |   |   |
|   |  1.5. Introducing self, if applicable  |   |   |   |   |
|  2.0.  |  **A**SKAssessing consumers’ knowledge about the drug.  |   |   |   |   |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|  3.0.  |  **T**ELL 1. 3.1. Explaining the drug, while building on consumers stated information, using the following guide:
 |   |   |   |   |
|    |  3.1.1. Its name (write name for consumer)  |   |   |   |   |
|   |  3.1.2. How it works  |   |   |   |   |
|   |  3.1.3. Special instructions for making it effective  |   |   |   |   |
|   |  1. • How to use/take it
 |   |   |   |   |
|   |  1. • Side effects
 |   |   |   |   |
|   |  1. • What not to use/take during the drugs’ use
 |   |   |   |   |
|   |  1. • When to report urgently to ADDO or dispenser
 |   |   |   |   |
|   |  1. • Hint for completion the course
 |   |   |   |   |
|   |  1. • How to store
 |   |   |   |   |
|    |  3.2. Praising consumer for appropriate information but tactfully making correction  |   |   |   |   |
|    |  3.3. Uses the real drug or visual to help consumer understand (e.g. Self Made Message(s), Ministry of Health leaflets, Drug Inset)  |   |   |   |   |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|  4.0.  |  **H**ELPand **E**XPLAIN 4.1. Checking consumers’ understanding at intervals  |   |   |   |   |
|   |  1. 4.2. Asking consumer repeat information discussed
 |   |   |   |   |
|   |  1. 4.3. Using questions and answer tactfully
 |   |   |   |   |
|   |  1. 4.4. Encouraging consumer to ask questions/clear concerns
 |   |   |   |   |
|   |  1. 4.5. Answering honestly and using updated facts
 |   |   |   |   |
|   |  4.6. Planning to answer difficult questions at appointed time, if applicable  |   |   |   |   |
|    |  4.7. Reviewing/Evaluating the session and information shared  |   |   |   |   |
|   | 1. • Asking what in the session does the consumer feel is most helpful
 |   |   |   |   |
|   | 1. • What in the session could be improved straightaway OR in future similar sessions
 |   |   |   |   |
|  5.0.  |  **R**ETURN  |   |   |   |  |
|   |  1. 5.1. Provide the purchased drug and following thee set
 |   |   |   |   |
|   |  5.2. Give / Invite to return  |   |   |   |   |
|   |  5.3. Thank the consumer  |   |   |   |   |

**FOR SKILLS EVALUATION ONLY**

**Total score attained \_\_\_\_\_\_\_\_\_\_ (%) Average \_\_\_\_\_\_\_\_\_\_ (%)**

##  WHY LEARN ABOUT FIVE STAGES OR BEHAVIOUR CHANGE

1. • Knowing about the above stages, helps dispensers and other health providers to be patient and avoid frustration when consumers seem “difficult” or not responding to the guidance that the dispenser provider.

• Learning (by consumer) to take drugs and follow instructions given by the ADDO service provider involves change of behaviour.

***Handout No. 33***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**HINTS ON ENSURING EFFECTIVE SIMULATIONS FOR PARTICIPANTS (ROLE PLAYS, DEMONSTRATIONS BY EXAMPLE)**

**1.0. Read the information about it well.**

**2.0. Believe and act as if it is a real-to-life activity.**

**3.0. If a player:**

3.1. Prepare and practice what and how you will present the simulation, according to Facilitators’ guidance.

1. • Plan the role play to be completed within the time given by Facilitator.

1. 3.2. Immediately before the role play
	1. • Introduce who (names) the players are, the setting (and theme or objective of the play if not done by Facilitator).
	2. • Plan not to laugh if this is not expected of in the role play

1. 3.3. “Act” as naturally or spontaneously as possible.

3.4. Follow the Facilitators guideline or instructions once the role play has been completed.

1. **4.0. If observer**

* 1. 4.1. Read the observers Checklist well.

4.2. Avoid laughing or making the players laugh. Laughing distracts the players from being “natural”.

4.3. Use the observer checklist and tick [] the actions done by player.

4.4. Follow the Facilitators’ guide or instructions before, during and after role play.

***Handout No. 34***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**GIVING AND RECEIVING FEEDBACK**

**1.0. Purpose of these notes**

To help the participant to comment, or critique his/her peer(s) in a non-threatening way, during Health Education, Counselling session or presenting group work.

**2.0. What feedback (MREJESHO) is**

1. • Feedback is letting someone know in a timely manner and specifically the observation you have made about particular action, or behaviour.

• Feedback can be either positive or negative.

• Verbal and non-verbal communication skills are also applied during giving and receiving feedback.

• Feedback described actions or behaviours and NOT the person.

***Handout No. 35***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

 **RULES FOR GIVING AND RECEIVING FEEDBACK**

|  |  |
| --- | --- |
| **GIVER (Sender)**  | **RECEIVER**  |
|  1. • Listens actively.
 |  1. • Listens actively.
 |
|    1. • Prepares to give feedback (thinks before saying something).
2.
 |    1. • Plans to use the feedback. May share this plan with sender.
 |
|  1. • Gives timely feedback.
2.
3.
4. • Make statements that describe specifically the action or behaviour of the Receiver.
5.
 |  1. • May or may not ask for timely feedback.
2.
3.
4. • Reacts by either asking for clarification or active listening.
 |
|  1. • Gives feedback on what the receiver can do something about/change.
2.
3.
4. • Uses questions: What, Where, How, When and “I” rather than “You” ….. statements.
 |  1. • Does not express anger or give reasons for the behaviour (is not defensive).
2.
3.
4. • Clarifies by using the same questions stated for sender (on the left of this page).
5.
6. Can also use “encouragers” e.g. Tell me more, go on, I hear you.
7.
 |
|   1. • Uses clear straight forward language, states supportive and specific examples. E.g. It he/she said “that was good”, he/she follows it with what made it good/what was good.
2.
 |   1. • Thanks sender/giver and states specifically what helped him/her he/she was given feedback.
2.
3.
4.
 |

***Handout No. 36***

 **SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

 **GUIDE/CHECKLIST FOR ADDRESSING CONSUMER SOLICITED SERVICE ON ILLNESSES AND SYMPTOMS**

 **1.0. Apply relevant consumer rights.**

**2.0. Answer questions using updated facts e.g. From Ministry of Health leaflets or policy described for ADDO service.**

 **3.0. Uphold professional code of Ethics e.g.**

1. • Be loyal to other colleagues (instead of talking badly about them).

• Refer to peer or other referral site if the matter is not your usual responsibility (even if you know about what other professionals, such as doctors, do)

 **3.0. Tactfully say “I do not know, I will find out or see Mr/Miss/Mrs/Dr ……….” Do what. You have promised the consumer.**

 **4.0. Offer time(s) to discuss the matter later. E.g. You need to find more information, or the matter requires confidentiality or is likely to take a long discussion.**

 **5.0. If appropriate, counsel to help the consumer make decision(s) that will contribute to solving the problem (How to do this procedure will be done in Session 5).**

 ***Handout No. 37***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Checklist/Procedure on Conducting a Health Education Session on Illnesses and Symptoms for which the consumer is purchasing drugs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|  1.0.  |  **G**REET Helping consumer feel relaxed and open (Creating rapport)  |   |   |   |   |
|   |  1.1. Greeting or make remarks in culturally acceptable manner.  |   |   |   |   |
|   |  1.2. Offer available seating.  |   |   |   |   |
|   |  1.3. Ensure that other persons cannot overhear the discussion AND/OR cannot to see your consumer.  |   |   |   |   |
|   |  1.4. Introduce your self, if applicable.  |   |   |   |   |
|    |  1.5. Make sure that the person wants to discuss the illness with you.  |   |   |   |   |
|  2.0.  |  **A**SK Use verbal and non-verbal communication skills throughout the session.  |   |   |   |   |
|   |  2.1. Ask what he/she knows about the illness or concerns about the illness.  |   |   |   |   |
|   |  1. 2.2. Ask what he/she knows about action of drug he/she is purchasing on the illness.
 |   |   |   |   |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  S**kill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|  3.0.  |  Assess consumers’ knowledge and feelings about the illness.  |   |   |   |   |
|    |  3.1. Tactfully correct misconceptions but praise for correct points and positive feelings.  |   |   |   |   |
|  4.0.  |  **T**ELL Explain expected actions of prescribed drug to the illness or symptoms.  |   |   |   |   |
|    |  1. 4.1.Use appropriate Visuals after ensuring consumer understand the message.
 |   |   |   |   |
|    |  4.2. Check and promote understanding of consumer at regular intervals:   |   |   |   |   |
|   |  1. 4.2.1. Ask him/her to repeat what he/she heard during the discussion.
 |   |   |   |   |
|   |  1. 4.2.2. Use questions and answers tactfully.
 |   |   |   |   |
|   |  1. 4.2.3. Encourage consumer to ask questions.
 |   |   |   |   |
|    |  4.2.4. Explain use of drug if appropriate (see Checklist No. 32 step 6.0).  |   |   |   |   |
|  5.0.  |  **H**ELP and **E**XPLAIN Review / Evaluation the session:  |   |   |   |   |
|   |  1. 5.1. What the consumer is happy about and reason.
2.
 |   |   |   |   |
|   | 1. 5.2. What he/she is not quite happy about and reason.
 |   |   |   |   |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Skill**  | **Yes** **2**  | **1**  | **No** **0**  | **Comments**  |
|   |  1. 5.3.Take action on the feedback you can deal with.
 |   |   |   |   |
|   |  1. 5.4.Say what you do not know and will find out or refer as needed.
 |   |   |   |   |
|  6.0.  |  **R**ETURN Close Session:  |   |   |   |   |
|   |  1. 5.1. Refer for further care if applicable on writing (See Handout No. 19)
 |   |   |   |   |
|   |  1. 5.2. Offer yourself for further health education when consumer feels that need.
 |   |   |   |   |
|   |  1. 5.3. Thank the consumer for his/her corporation.
 |   |   |   |   |
|    |  1. 5.4. Ensure he/she has the drugs.
2.
 |   |   |   |   |
|   |  1. 5.5. Bid his/her farewell.
 |   |   |   |   |

**TOTAL SCORE** (If it is a skills evaluation of Dispenser) \_\_\_\_\_\_ (%)

**AVERAGE SCORE** \_\_\_\_\_\_\_\_ (%).

***Handout No. 38***

**SESSION 4: CONDUCTING HEALTH EDUCATION AS PART OF ADDO SERVICE**

**Questions and answers that help to develop a Consumer Oriented Message or Information**

**1.0. What is the problem I need to solve among consumers?**

1. • Ask what is the problem? E.G. Why, Why, Why is it a problem until you get one priority problem?

**2.0. What do I want the consumer after reading the message to do?**

1. • To use the drug consistently.
2. • To clarify a misconception.
3. • To state, similarity or difference of old and new drug or illness etc.
4. • To use my ADDO frequently (because of the quality of care at my ADDO).

**3.0. When does the reader/consumer need to read the message?**

1. • At home in evenings
2. • In private excluding children
3. • After childbirth etc.

**4.0. How much will the reader manage to read (give his/her usual activities, education level, responsibilities at home etc.)?**

1. • Helps to decide on size of message. Long sentences or more than one page are not attractive for busy or low literate readers. Short and through provoking messages “spread like fire in the community.”
2. **5.0. What material do I need to use or write on?**
	1. • Consider the number of times the message will be used OR the circumstance where the consumer works/lives – is there lighting, or generally lacking in environment e.g. for making it private and personal, if applicable.
	2. • This helps, to decide whether to use hard or soft paper and to find a way of maintaining cleanliness of the material which has the message etc.

1. **6.0. What type of material do I have?**
	1. • Helps to assess additional needs or what must be done to improve the materials.

1. **7.0. Do I need to hand the message to consumers or post the message in my ADDO?**

**8.0. How will I make sure that the consumers understands the messages as it is intended to be?**

* 1. • This helps plan approaches of regular checking the understanding of the massage OR
	2. • Plan to test the message informally but systematically. E.g. asking opinion of the consumers.

**NEXT STEPS AFTER ANSWERING THE QUESTIONS**

NB: Once the question have been answered

1. • Develop the message. It is alright to draft and redraft it.
2. • Test it
3. • Finalize it

**Questions of testing include:**

1. 1. What do you understand about what you read on this paper?

2. What is making it difficult?

3. How do you suggest to improve the message because I wanted it to ………..

Test the message with many consumers of (targeted) over time up to 3 months on daily basis.

**Session 4: Counseling and Effective Referral.**

PURPOSE:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

OBJECTIVES:

TIME:

***Session 4***

***Handout No. 19***

**SESSION 3: APPLYING CONSUMERS’ RIGHTS DURING ADDO SERVICE**

**GUIDE FOR EFFECTIVE REFERRAL**

**1.0. Ensure that consumer**

1. • Has understood the reason for the referral.

• Can repeat to you the importance of timely reaching the referral place e.g. for effectiveness of the medicine prescribed, or to ensure early management of an emerging or problem identified during purchase of medicine.

• Knows that you are available any time for any of his/her questions about the referral. Tell her/him how to find you or what to do after work hours.

**2.0. Give a written referral with:**

1. • Name of consumer

• Date of referral

• Reason for referral

• When to go, if possible to whom

• If applicable, what medication you have already sold her

• Your name, signature, ADDO name and address in your writing or on a rubber stamp.

***Handout No. 39***

**SESSION 5: COUNSELLING CONSUMERS AS PART OF ADDO SERVICES**

**SESSION OBJECTIVES**

By the end of the season the participant will be able to:

1. 1. Explain the acronym G.A.T.H.E.R applied to health services.

2. Identify the use of G. A. T. H. E. R based on Facilitators’ demonstration.

3. In Simulations:

* 1. 3.0. Conduct counselling on selected reproductive health and medical conditions solicited by consumers, using G.A.T.H.E.R.

3.1. Counsel consumers for unsolicited services including “Difficult moments”.

***Handout No. 40***

**SESSION 5: COUNSELLING CONSUMER AS PART OF ADDO SERVICES**

**What Young and Adult Consumers expected of ADDO service:**

**Selected expectations related to Dispensers’ work**

**NB:**

1. 1. This handout is also relevant for the session on “Interpersonal Relationships and Consumers Rights” and other sessions on communicating with consumers.

2. The ticked statements below apply to counselling sessions and therefore they are standards of consumer oriented quality of care

**Expectation of the ADDO and Dispensers**

1. 1. Clear mind that the service can result in positive or negative impact to

human life. ()

2. If community is involved, crucial illnesses in the community will be overcome. ()

**Areas in which all consumers agree:**

1. 3. Trained dispensers with identification and uniforms. ()

4. Expanded list of drugs

5. More blister packaging

6. Affordable prices of drugs and services

7. Dispenser communicate well with clients about drugs and services. That is: in polite, and thorough. ()

8. Reliable service of drugs nearby ()

9. All groups contributing and working together ()

10. Dispenser maintain service to ADDO standards including: ()

* 1. - Communicate with client to assess the problem
	2. - Dispense appropriately
	3. - Inform and educate clients
	4. - Refer if needed
	5. - Maintain ethics (confidentiality, patient well-being, relationship with providers, patience, up to date)
1. 11. Services listed for the ADDO should be available: ()
	1. - Assessment of consumers’ health problem
	2. - Dispensing of registered, quality drugs (adequate explanation, side effects and indications)

1. 12. Information provision and education of consumers. ()

13. First aid.

14. Blood pressure check, weighing.

***Source:*** Taylor M. E., Kihinga C. Mbwasi R and Mfuko W; *Transforming Maduka ya Dawa Baridi* into Accredited Drug Dispensing Outlets (ADDO): *Designing a Behaviour Change Communication Strategy.* Management Services for Health and Healthscope Ltd. February 8, 2003 (Tanzania).

 ***Handout No. 41***

**SESSION 5: COUNSELLING AS PART OF ADDO SERVICES**

**GATHER applied to health / ADDO Services**

1. • Use of GATHER is one way of reminding the counselor/ ADDO service provider about what he/she must go through to help a consumer make decisions, choose confidently and follow the guide discussed. Being a guide, there

• The process of GATHER requires the use of verbal and non-verbal communication skills to ensure that it is allows the consumer to participate.

* 1. **1. Elaborating Components of the Acronym “GATHER”**

**G** Stands for **G**reet and creating an atmosphere for free and two way information flow between consumer and ADDO service provider. Give consumer full attention. Assume confidentiality and privacy if possible. Offer seating if possible. This part is also referred to as “Creating rapport.”

**A** Stands for **A**sking questions about what the consumer knows already e.g. about the drug or a health problem, or finding out the real problem about a situation that the client is presenting. In some situations, such as family planning or discussion on a problem, this stage of GATHER on can be used to find out what the consumers’ concerns or health or life goal.

**T** Stands for **T**elling/tactfully explaining the drug or health condition. This part of GATHER helps the consumer obtains correct information (facts) and thus dispel misconceptions he/she may have had. Depending on needs identified in the above two steps, explain about what the client asks for first and then offer choices of services you provide that relate to the same needs or to which you suggest going for referral.

**H** Stands for **H**elping the consumer to make a decision based on the counseling session/discussion that has taken place so far:

* 1. • The counselor summarizes important ideas of the counselling session that will help the consumer make an informed decision. He/she does *not give advice* or his option of what the consumer should do.

* 1. **E** Stands for **E**xplaining fully, or in a build-on manner (to what consumer already stated):
	2. • How to use relevant drug; OR
	3. • Facts that are related to what the consumer feels is important for him/her to address; OR
	4. • Facts what the consumer must remember before leaving the ADDO/health providers
	5. • Encouraging questions and answer them openly and fully
	6. • Checking that consumer understands. Dispenser then gives the drug or related supply for which he/she has paid or will pay according to an agreement you have with him/her.

* 1. **R** Stands for information provided in order to help the consumer **R**eturn to the ADDO/health providers:
	2. • As per routine/usual practice; OR
	3. • AS an emergency OR
	4. • When the consumer has concerns, or needs to be reminded about facts.

* 1. This part also stands for discussing and making a **R**eferral to help consumer obtain drugs or services that the dispenser does not have in his/her ADDO.

 ***Handout No. 42***

**SESSION 5: COUNSELLING AS PART OF ADDO SERVICES**

**HOW TO MAKE COUNSELLING EFFECTIVE**

1. 1.0. Use verbal and non-verbal skills appropriately. Some of made-up words to help remember these skills are:

* 1. 1.1. **Verbal skills** (using **CLEARS**)

* 1. • **C**larifying using open-ended or probing questions.
	2. • **L**istening actively: not interrupting consumer when he/she is talking;
	3. • Maintaining culturally acceptable **E**ye contact, not looking at the watch.
	4. • **A**ccurate reflection and focusing the discussion in line with consumers’ needs.
	5. • **R**epetition or paraphrasing.
	6. • **S**ummarising and ensuring a common understanding of the discussion.

* 1. 1.2. **Non-verbal skill** (using **SOLER**)

* 1. • **S**miling and/or nodding at consumer

• **O**pen and non-judgemental facial expression

• **L**earning towards the consumer

• **E**ye contact in a culturally acceptable manner

• **R**elaxed and friendly manner

1. 2.0. Uphold the consumers’ rights.

3.0. Maintain up-datedness so as to provide accurate information.

4.0. Ensure that the counselling session is related to consumers’ priority needs. Avoid providing unnecessary information (information overload).

5.0. Respect consumers’ cultural, religious and other personal beliefs, of these:

1. 5.1. Have potential for interfering with the drug prescribed use the approach of counselling for unsolicited service to help the client plan to “drop” there beliefs at least during the use of a particular course of treatment.

5.2. Are harmless just ignore them.

6.0. Acknowledge that changing behaviour takes time, depending on the stage of behavioural change process at which the individual consumer is:

Five stages of behavioural change are:

1. 6.1. Consumer has no plan to change, appears indifferent or unaware of the need to change what to do:

**What to do:**

* 1. • Offer yourself for counselling any time he/she wishes to return.
	2. • Thank him/her for coming and if possible issue a leaflet on the subjects or illness that brought him/her.

1. 6.2. Consumer is aware of need to change but has no specific plans to help make change.

**What to do:**

* 1. • Praise him/her for being aware that he/she needs to change.
	2. • Use verbal and non-verbal communication skills to help him/her make plans even after leaving the ADDO.
	3. • Offer an open invitation for further discussion. Issue leaflet, if available.

1. 6.3. Consumer is ready for action. He/she has consulted with friends or partner and has established personal goals to change behaviour but he has not made an action plan to achieve the goals.

**What to do:**

* 1. • Counsel him/her using GATHER.
	2. • Offer open invitation for further discussion.

1. 6.4. Action stage. Consumer has begun to change, the change is new, and he/she alone or with partner is trying out ways of reaching his/her goal.

**What to do:**

* 1. • Counsel him/her using GATHER.
	2. • Offer invitation for further discussion.

1. 6.5. Consumer consistently demonstrates the changed behaviour, the change is sustained. For example he/she fully complies with taking a full course of any prescribed drug.

**What to do:**

* 1. • Praise him/her. Ask him/her to help share with his/her peers, friends’ etc. benefits of fully complying with drug being taken.
	2. • If possible involve him/her on relevant community education activities if applicable.

 ***Handout No. 43***

 **SESSION 5: COUNSELLING AS PART OF ADDO SERVICE**

 **SITUATIONS FOR PRACTICING COUNSELLING SKILLS**

**1.0. Solicited Services**

1. 1.1. Mama Wena received a prescription of a full course of Amoxil 250 mg. She wants to purchase half of the capsules because she cannot afford the price to day. In addition she says that she received similar colour of capsules six months ago and some were left over. Her daughter Rehema referred her to you so as to help her use antibiotics correctly.

**Instruction:**

* 1. • Counsel Mama Wema to help her effectively use drugs prescribed to her.

1. 1.2. Mr. Fupi wa given Panadol tablets at the hospital for pains in his knees. They worked well. He came to purchase the same tablets. When you gave him Paracetamol he got worried and said he prefers to go back to his doctor for Panadol.

**Instruction:**

* 1. • Counsel Mr. Fupi on Paracetamol/Panadol and help him to be confident in using Paracentamol/Panadol tablets.

1. 1.3. Miss Safi received a course of oral Flagyl. She has come to purchase the tablets. However, she tells you that she is worried about taking these pills since her friend who took the same type of pills told her they are very strong and make one weak.

**Instruction:**

* 1. • Counsel Miss Safi and help her dispel the worries about Flagyl and use it currently.

1. 1.4. Mr. Furaha reports at your ADDO looking very frustrated. The reason as that although he had been prescribed with Indocid three weeks ago, it has been out of stock in all the Duka la Dawa Baridi shops. Your ADDO has Ibuprofen 200mg pills.

**Instruction:**

* 1. • Counsel Mr. Furaha on Ibuprofen, its similarity with Indocid to help him use Ibuprofen confidently and correctly as an alternative to Indocid.

1. 1.5. Mrs. Pendwa, a mother of a five year daughter Sifa, has come to purchase an antifungal for her child’s’ scalp. Sifa has ringworm. The MCH Aid referred her to your ADDO for the drug. Mrs. Pendwa has used Fungistant (Miconazole Cream BP 2% w/w) before and believes it is the best medicine but you have a substitute that work as well. Mrs. Pendwa difficulty in “catching” instructions, according to the note from the MCHA.

**Instruction:**

* 1. • Counsel Mrs. Pendwa so that she uses that she correctly uses the anti-fungal cream you have on her child’s scalp.
	2. • Also address the fact that she has “difficulty catching instructions”.

**2.0. Unsolicited Services**

1. 2.1. As you are talking Mrs. Tembo who has come to purchase Doxycycline tablets, she informs you that this is the third time within six months that she has had vaginal discharge which requires this drug.

**Instructions**

In addition to ensuring that she uses Doxycycline correctly:

* 1. • Counsel her to help make decision about having had three bouts of vaginal discharge within six months.

1. 2.2. Mr. and Mrs. Musa have come to your ADDO to purchase Oral Rehydration Salts for their seven month old baby. During discussion with Mr. and Mrs. Musa you hear them say that they will try weaning the baby because breast milk seems to “disagree with his stomach.”

**Instructions**

* 1. • Help Mr. and Mrs. Musa use Oral Rehydration Salts correctly.
	2. • Counsel them to help them continue to have Mrs. Musa breast their baby.

1. 2.3. Mr. Livingstone has been prescribed with SP for malaria. His wife whispers to you that although they will purchase SP, that will be for keeping in the house because a friend with medical training advised them to avoid taking SP, since it has very serious side effects. Mr. Livingstone is a literate blind man. His wife works daily and returns late in the evening.

**Instructions**

* 1. • Counsel Mr. and Mrs. Livingstone in order to help the man comply with the SP course of treatment.

1. 2.4. Miss Mdogo a young lady aged 16 years old reports to you that she had an unexpected baby six weeks ago. She has come to purchase “proper medicine” to stop a bad smelling vaginal discharge. Her parents are your best friends. She asks you not to reveal to anyone that she came to buy the medicine.

**Instructions**

* 1. • Counsel Miss Mdogo to help her obtain and comply to appropriate treatment for her problem.
	2. • Include information which will help maintain the health of her child and herself based on the brief information she shared with you.

 ***Handout No. 44***

 **SESSION 5: COUNSELING AS PART OF ADDO SERVICES**

**Guide on Counselling to Help Make a Decision on Drug use or Health Problem**

***(Providing an unsolicited service)* using GATHER.**

1. **GREET**/creating atmosphere for free flowing communication.

1. 1.1. After ensuring the consumer has received the service he/she sought:
	1. • Use verbal and non-verbal communication skills to help begin discussion on the problem you have identified (as part of other solicited service).
	2. • Confirm that the consumer has time to discuss the matter, give reasons for the need to discuss the matter.
	3. • If he/she has no time, agree on another day for that discussion/counselling session. OTHERWISE
	4. • If he/she agrees, go on to next steps.

 **2. ASK**

* 1. 2.1. Inform consumer the problem you have observed (by sight, hearing, sense of smell or touch).

2.2. Ask consumer what he/she knows about the problem.’

2.3. Paraphrase and allow the consumer to add to what you have said, if applicable.

1. **3. TELL/EXPLAIN**

* 1. 3.1. Explain in a build-on manner while encouraging consumers, inputs, the problem E.g. include:
	2. • What is it
	3. • Cause or factors that influence “having” the problem.
	4. • Signs and symptoms if applicable OR
	5. • Effects of the problem on the consumer’s health.
	6. • How the problem could be resolved OR how the consumer feels are some ways he/she can resolve it.
	7. • Whether solving it requires “Referral” to other services.

* 1. 3.2. Ask consumer to paraphrase important points that have been discussed.

3.3. Praise him/her and tactfully add missed information.

1. **4. HELP**

* 1. 4.1. Review the discussed ways of solving the problem.

4.2. Help the consumer to decide which solutions he wishes to adopt as priority.

4.3. Ask reasons for selecting the priority areas.

4.4. Summarize the priority solutions and offer other help you have to support the consumers, if you have.

4.5. Encourage the consumer to ask questions.

4.6. Respond using facts.

1. **5. EXPLAIN**

* 1. 5.1. Explain any other point which you feel needs emphasis.

5.2. Provide help you have to solve the problem if you have E.g. First aid, leaflet.

1. **6. RETURN**

* 1. 6.1. Inform the consumer when do return for further discussion or obtaining treatment, if.

6.2. Refer in writing after explaining reason if applicable.

6.3. Thank and bid consumer farewell.

 ***Handout No. 45***

**SESSION 6: APPLYING ACQUIRED KNOWLDEGE AND SKILLS IN WORK SITES**

**KNOWLEDGE AND SKILLS APPLICATION PLAN**

**What it is:**

It is a renewable plan with priority knowledge and skills and sometimes, attitudes to be introduced in the site or strengthened, which the participant acquired from the training.

The plan may also include activities that are important in helping to introduce or strengthen the learned knowledge, skills and attitudes.

**For example:** Staff and supervisor meeting to review the training you have undergone and need to support your Skills Application Plan.

**Purposes:**

1. **1. The plan helps the newly trained participant to:**
	1. • Systematically strengthen his/her capability and thus retain what he/she learned.
	2. • Based on individual review, the owner of the plan after achieving some skills and puts on the plan some more but different activities/skills. Hence he/she revises the plan.
	3. • Help others learn from the Skills Application which is usually posted in the work site where all can see what a trained ADDO must do competently.

1. **2. For trainers and supervisors, the Skills Application helps them use it as a tool during:**
	1. • Trained persons’ follow up visits. (Achievements are reviewed with the trained person and problems solved jointly with trainer and supervisor).
	2. • Forums which are held in order to determine the needs of the trained person and plans for addressing these needs are made. E.g. need for equipment, supplies, frequent supervision or expanding existing work site for improved serving of consumers.

**3. Sources of the Knowledge, Skills and Altitude Application Plan:**

1. • The learnings identified by trainee during participatory session.
2. • The needs at work-site:
	1. - Other dispensers’ training needs
	2. - Needs related to introducing a new or improved service kor change in service policy and standards for ADDO.

**4. Whose the Application Plan is:**

1. • It belongs to the newly trained person, initially.

• Should there be other staff needs that arise from the written training, it may be expanded to include other staff needs that relate to the major skills which the trained person learned.

**5. How long should the Application Plan be Used and Written?**

1. • Initially over the time in which follow up of training will be done (e.g. one year).

• After that preferably the plan should be incorporated into the whole ADDO Programs’ Action Plan.

# MODULE 8:

# Supplemental Material/Information for Reference

# Legal Requirements and Code of Ethics

**Session 1: Definitions and General Explanations**

## PURPOSE:

In this session, participants will learn about the Tanzania Food and Drug and Cosmetic Act, 2003 in addition to the Pharmaceutical and Poisons Regulation governing the delivery of pharmaceutical services in Tanzania. Since Duka la Dawa Muhimu practice is concerned with dealings in pharmaceuticals and poisons, it is therefore subject to this law. Awareness on the provisions of this law and standards of operations relevant to the Duka la Dawa Muhimu practice is therefore of paramount importance to all dealers of Duka la Dawa Muhimu practice.

To impart knowledge to the Duka la Dawa Muhimu owners and dispensers on legal requirements and the rationale behind maintaining the Duka la Dawa Muhimu Standards of operation

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Discuss the basic definition terms in the Drug and Cosmetics Act, 2003
2. Describe the legal consequences of violating the Drug and Cosmetics regulations
3. Describe the decentralized regulatory monitoring and inspection bodies for the Duka la Dawa Muhimu and DLDB.

## Definitions/general explanations

Law

Law means a rule of human conduct binding upon all persons within a given state or nation commanding what is right and prohibiting what is wrong.

More general rules or laws are called Acts or Statutes. These are enacted in writing by a law making body of state or nation such as the Tanzania Parliament. The Acts or States are usually stated in general terms and their implementation may be difficult. Under the Acts, Regulations and Guidelines are made by an authority body normally by a Minister or authoritative bodies or agencies or groups of individual experts (policy makers).

Regulations

Regulations are more specific rules controlling or restricting something. They are made by the Minister responsible for the matters in question, for example the Minister for health who is at that point in time responsible for matters of health and medical services. The Minister makes these regulations after consultation with the technical authoritative body or agency or group of individuals who are experts on the area or matter in question. Example of such authority body is the Tanzania Food and Drug Authority. These regulations come into force on the date of their being published in the government gazette. The examples of such regulations are the Pharmaceuticals and Poisons Regulations and Duka la Dawa Muhimu Regulations. Regulations and Acts are the Laws. Contravening either a Regulation or an Act is punishable by Courts of Law.

Guidelines

These are instructions on how to implement or to enforce the laws. They are normally drawn up or laid down or issued by government or other authority or policy making body like the Boards of Trustees, Boards of Directors and similar bodies.

The difference between Guidelines and Laws is based on the demarcation of their enforcement. While violation of laws is punishable by Courts of Law, violation of Guidelines is not punishable by Courts of Law but rather, may lead to withdrawal of certain rights and privileges one enjoys when he adheres to the guidelines for instance, withdrawal of Certificate of Registration, deletion from Registers and other similar withdrawals.

The need for Laws and Consequences of Violation

Laws, regulations and guidelines are needed to enable for good governance. Good governance goes hand in hand with the ability of in the law enforcers to command what is right and prohibit what is wrong. There are many incidents by which laws, regulations and guidelines may be violated. Violation of a law means breaking a rule or rules; going contrary to a rule, principle or treaty.

The consequences of violating a law:

The violator may be subjected to appear before a court of law and upon conviction; he may be punished either to pay a prescribed amount of fee or serve an imprisonment sentence or both.

*Examples 1*: a person opening up Duka la Dawa Muhimu shop without following the prescribed procedure.

*Example 2*: Tax-evading is another example of law violation Duka la Dawa Muhimu practice is business oriented. Like any other business shall be liable for taxation. Tax evasion may lead to closure of the premises by law enforcing bodies and bring about inconveniences to Duka la Dawa Muhimu owner, Dispenser and the community served by the shop.

*Example 3*: Purchase of drugs from non-licensed dealers. This may lead to purchasing of counterfeit or sub-standard drugs, which in time will have no intended therapeutic benefits. This practice may lead to deaths of patients and other negative socio-economic problems. Such violations of law are punishable on conviction by Courts of Law.

There are a number of other examples of laws violation; the best practice is to observe the laws accordingly.

It is therefore important for the Duka la Dawa Muhimu owners and dispensers to adhere strictly to the provisions of the law, guidelines and standards of operations laid down.

## Duka la Dawa Muhimu Regulations

Duka la Dawa Muhimu regulations have recently been introduced in order to establish more standardized drug outlets in terms of their practice and regulation. The past performance of “Duka la Dawa Baridi (DLDB)” with respect to adherence to laws and regulations has been very bad. The DLDB lacks trained personnel in drug dispensing, drug list does not contain some essential drugs needed by the community, general operation was to a largest part not regulated, operators bought and sold drugs that are beyond the prescribed list and many other similar non compliant practices with the law and guidelines.

On the other hand, the Duka la Dawa Muhimu personnel and Owners are expected to adhere strictly to laws and guidelines pertaining to Duka la Dawa Muhimu operations, carry out their operations in ethical manner, comply with the prescribed conditions in relation to Duka la Dawa Muhimu operations and ensure that Duka la Dawa Muhimu are run by trained personnel

## Bodies responsible for the control of Duka la Dawa Muhimu and DLDB

In the former system of DLDB there was no legal support below the Regional level of governance. The legal matters involvement was confined at the top levels alone, that is, National (Tanzania Food and Drug Authority) and Regional level (Regional Commissioners and Regional Pharmacist). The new system under Duka la Dawa Muhimu Regulations provides for legal support down to village level, that is, all levels will be covered by the legal support.

Village Council

The basic unit of a village is the Hamlet (Kitongoji) which is constituted by up to 250 households. A maximum of 25 Hamlet Chairpersons form the Village Council. The Village Council is the governing body of the village affairs and is headed by the Village Chairperson. The Council has special committees which carry out specific tasks. The relevant committee for Duka la Dawa Muhimu operations at this level is the Village Health, Education and Social Committee. The Council is answerable to the Village Assembly which is constituted by all the Hamlet Chairpersons and the village members.

The roles of the village council in Duka la Dawa Muhimu operations are to:

Issue and process the Duka la Dawa Muhimu application forms at the village level

Provide any assistance that may be requested/required by Duka la Dawa Muhimu inspectors during Duka la Dawa Muhimu and DLDB inspection exercises

Carry out other activities as may be directed by a higher body or bodies

Ward Health Committee and Ward Development Committee

The Ward Committees will establish under them, sub-committees which are responsible to them.

The roles of the sub-committees are:

* Establishing Duka la Dawa Muhimu shops

The bodies shall be involved in the steps required in establishing Duka la Dawa Muhimu shops for instance, issuing application forms.

* Controlling Duka la Dawa Muhimu and DLDB

The bodies shall exercise control of Duka la Dawa Muhimu operations and ensure that the Duka la Dawa Muhimu standards of operation are adhered to by Duka la Dawa Muhimu personnel and owners.

* Inspection

The bodies (or body) shall carry out regular inspections of Duka la Dawa Muhimu.

* Reporting:

The bodies shall, preferably every month, report to the District level, the progress made by Duka la Dawa Muhimu shops.

The District Drug Technical Committee (DDTC)

The District Drug Technical Committee (DDTC) shall be established composed of the following members:

* The District Commissioner who shall be the chairman/chairperson
* The District Drug Inspector who shall be the Secretary
* The District Executive Director
* The District Administrative Secretary
* The District Medical Officer
* The District Trade Officer
* The District Crops Officer
* The District Veterinary Officer
* One person representing the community and
* The Regional Drug Inspector, if the District Drug Inspector is not posted at the District

District Drug Technical Committee (DDTC) is the key organ responsible for overseeing the activities/operations of Duka la Dawa Muhimu. The committee may establish, according to needs, sub-committee or sub-committees so as to discharge its functions properly.

## Responsibilities of:

Ward Health Sub-Committees:

* Review applications and recommendations from the village council
* Discuss and interview applicants
* Inspect functioning premises as routine control and new premises for recommending to the WDC
* Write report and recommend on applications received form the village council, to the WDC

District Drug Technical Committee

* Approval of applications for the establishment of Duka la Dawa Muhimu shops
* Controlling Duka la Dawa Muhimu shops
* Inspection and Reporting to Regional and National levels

The Regional Drug Technical Committee (RDTC)

* Shall have appellate,
* Monitoring, supervisory and support of Duka la Dawa Muhimu and DLDB.
* May, when deemed necessary, carry out inspection of Duka la Dawa Muhimu and DLDB
* Shall have the right to enquire against steps taken by the DDTC as described in the DDTC quarterly summary reports

The Tanzania Food and Drug Authority

* Has the overall authority over the establishment of all premises and therefore may overrule decisions made by the lower bodies if necessary
* The controlling and coordinating body on issues concerning the management and control of all premises including DLDM
* Shall be responsible for inspection and monitoring activities at the national level.
* May carry out inspection in respect of any premises which provide pharmaceutical services such as pharmacies, DLDB and Duka la Dawa Muhimu.

**Session 2: Application and Accreditation**

## PURPOSE:

## In this session, participants will learn about application and accreditation procedure for the Duka la Dawa Baridi (DLDB) and Duka la Dawa Muhimu (DLDM). The session covers the evaluation of applicant application and final approval or rejection.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Describe the current procedure for application to DLDB: advantages and disadvantages
2. Describe the DLDM application procedure and evaluation f applicants
3. Describe final approval or rejection process, accreditation and licensing

## Application and Accreditation Procedure

The current DLDB application procedure:

According to the Guidelines for dealing in Part II poisons, 1998, the Regional Commissioner is required to issue a public notice for inviting applications and specifying the deadline for receiving the same. The notice would indicate that the application forms could be picked from the secretary of the Regional Advisory Committee (RTAC). The Regional Commissioner, upon receiving the applications and after consultations with the RTAC may approve or disapprove an application. The approved applicants would then be issued with the Tanzania Food and Drug Authority (TFDA) Permit. Applicants with TFDA Permit would be directed to the District Trade Officer (DTO) to obtain business licenses before opening the outlet.

#### *Advantages:*

The current procedure is relatively shorter, if followed strictly, therefore a fast one in obtaining approval to establish a DLDB.

#### *Disadvantages*:

* Legal support is confined at the top levels (National and Regional levels) leaving the District and other lower levels without this necessary support
* Although the law prohibits establishing a DLDB at a place which is already secured (a place in which there is already another DLDB), the case is so different because the two persons involved cannot carry out preliminary inspection at all places for which establishment of a DLDB is sought.
* Documentation of DLDB is largely incomplete
* People are able to establish DLDB and operate them unnoticed by law enforcers for long periods of time.
* Improper and unfit persons have been able to establish and operate DLDB.
* It requires the applicant to travel to Regional Headquarter offices for application procedures and interview.

#### *Problems* *encountered*:

The following are some of the most encountered problems with DLDB operations:

* Most of the DLDB establishment and operations are unregulated, the situation is actually chaotic!
* It is not uncommon to see several DLDB shops clustering in the same area.
* Many DLDB have been conducting unlawful practices like giving injections to patients, operating as clinics or dispensaries.
* The DLDB shops are run by untrained persons in drug dispensing
* The DLDB are established in premises unsuitable for that purpose.

The Duka la Dawa Muhimu application procedure:

#### *Collection of Forms*

The applicant will:

* Collect and fill the forms to be issued by the secretary of the committee or village council, as the case may be, for that purpose.
* Pay a prescribed fee for the application forms

The secretary of the committee or village council will:

* The secretary of the DDTC shall issue to applicant the Tanzania Food and Drug Authority supplied and numbered application forms to ensure that records associated with application are available for easy reference.
* The fees described above shall be deposited in the DDTC account and shall be used to support the DDTC activities.

#### *Submission of Forms*

The applicant will:

Submit duly completed application forms at any given time to:

* In case of an application to establish Duka la Dawa Muhimu shops within a local authority, the village executive officer
* In case of an application to establish Duka la Dawa Muhimu shop within urban area, the ward executive officer.
* The local government at village and ward level shall be accountable to the District Technical Committee for every application form submitted to them by an applicant.

#### *Evaluation of the applicant*

The applicant will:

Provide the village council and/or ward executive officer with information on the following items:

* his citizenship
* his attitude and behavior
* his residential address
* the need for service in the community
* his past and current business activities carried out by him.
* Appear for interview before the sub-committee of the Ward Health Committee.
* Provide the sub-committee of the Ward Health Committee with the evidence of the qualifications of the proposed dispenser.

A village or ward executive officer as the case may be, may:

* request additional information about the location of Duka la Dawa Muhimu shop premises; and
* visit the location of premises but only for the purpose of collecting necessary information to form the basis for the village council or ward health committee, as the case may be to make right recommendations thereof.

No village or ward executive officer, as the case may be, shall carry out any preliminary inspection for the purpose of either refusing or accepting the application forms submitted to him.

The village executive officer shall in the scheduled meetings of village council submit the applications for establishing Duka la Dawa Muhimu within the village if any.

The ward executive officer shall send minutes of the village council regarding an application for establishing Duka la Dawa Muhimu in the local authority together with the application forms from urban area to the ward health committee.

The village council or ward health committee, as the case may be, shall discuss the applications and record its recommendations in the application forms giving their reasons for the recommendations they have made.

The ward health committee shall direct its sub-committee to carry out the following:

* interview the applicant and proposed dispenser;
* request evidence of qualifications for the proposed dispenser inspects the premises
* inspect the premises
* write a report on their preliminary findings of inspection of premises:
* and
* submit the report together with all applications to the secretary of the ward development committee.

The ward health committee’s shall be composed of the following members:

* a Ward Executive Officer who shall be the Chairman;
* a Dispensary or Health centre in-charge who shall be the Secretary
* a Ward Health Officer,
* a Community Development Officer, and
* one Extension Officer

The Ward Executive Officer shall submit the applications to the Ward Development Committee meeting scheduled for that purpose, whereby it shall.

discuss each application taking note of the preliminary reports and recommendations from the village council or Ward Health Committee, as the case may be; and

make final recommendations to the District Drug Technical Committee

Approval or Rejection of an Application

The District Drug Technical Committee shall consider and discuss all applications from the area of its jurisdiction and shall approve or disapprove the recommendations made by the Ward Development Committee

Information

* The DDTC shall prepare and send a list of approved applicants to the Tanzania Food and Drug Authority and Regional Drug Technical Committee
* The DDTC, through its Secretary shall notify all applicants their respective decisions within fourteen days.

Accreditation and Licensing

When the application has been approved by the DDTC, the applicant shall be issued with the Accreditation certificate upon the payment of prescribed fees to be determined by the Tanzania Food and Drug Authority from time to time.

Before establishing the Duka la Dawa Muhimu business, pay for a business license fee to the respective trade office.

The Accreditation certificate fees described above shall, upon recommendation by the Tanzania Food and Drug Authority, be apportioned between the relevant local government authority and the Tanzania Food and Drug Authority.

#### *Advantages and disadvantages of the Duka la Dawa Muhimu application procedure.*

**Advantages:**

* The procedure involves all the stake holders of Duka la Dawa Muhimu business, therefore it is transparent
* Documentation is adequately addressed and there is no room for the applicants to evade any of the steps
* Involvement of different Bodies by itself is an effective and efficient means of checks and balances.
* The procedure is inbuilt with transparency and documentation which in turn makes the control, restriction and general regulation of the Duka la Dawa Muhimu business much easier.
* The planned steps are implementable
* The applicant does not need to travel to Regional Headquarter Office

**Disadvantages:**

The procedure is long and enduring

**Session 3: Standards of Operation**

## PURPOSE:

## Importance of Standards of Operation, good business practices

## To provide an opportunity for participants to understand standards of operation (SOPs), drug quality and dispensing, records documentation and inspection aspects of Duka la Dawa Muhimu practices

Also review the Duka la Dawa Muhimu Approved Drug List

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Describe standard operating procedures for personnel, hygiene, store management and record keeping
2. Describe drug quality and dispensing requirements
3. Identify Duka la Dawa Muhimu Approved Drug List
4. Discuss the inspection process and TFDA legal roles

## TIME:

## Standards of Operation

Personnel

#### *Training*

(a)Background

In the current system, most of the sellers of drugs in DLDB lack the requisite knowledge of handling drugs. The only widely available trained cadre of personnel working as dispensers in the current Part II drug outlets is that of Nurse Assistants. The current requirements according to the Guidelines for Dealings in Part II Poisons are that, the seller (Dispenser) must have basic knowledge of pharmaceutical sciences, medical sciences, veterinary science, agricultural sciences. In the absence of such persons, the Tanzania Food and Drug Authority may approve a suitable person after consultations with other relevant authorities such as the Tanzania Veterinary Board, Tanganyika Medical Council, Tanganyika Medical Training Board, Nurse and Midwives Council and others.

(b)Duka la Dawa Muhimu Requirements in Training

(i) Basic qualifications

Every Duka la Dawa Muhimu dispenser should preferably have been trained as:

* pharmaceutical technician
* pharmaceutical assistant
* a nurse
* nurse midwife
* clinical officer
* assistant clinical officer

However, the minimum qualification of the Duka la Dawa Muhimu dispenser shall be a nursing assistant with at least one year training from a recognized institution or as may be required by the Tanzania Food and Drug Authority.

(ii) Additional training:

In addition to the basic training requirements, an Duka la Dawa Muhimu dispenser shall undergo and successfully complete Duka la Dawa Muhimu dispenser training course approved by the Tanzania Food and Drug Authority.

The content and duration of the course shall depend on the minimum qualification attained by the applicant and whether the applicant is Duka la Dawa Muhimu dispenser or owner.

#### *Continuing Education:*

It is important for Duka la Dawa Muhimu dispensers and owners to undergo continuing education so as to keep pace with the rapid changes in the world of science in general and pharmacy in particular.

To this effect all Duka la Dawa Muhimu dispenser and owners shall be required to attend and complete annual continuing education to be organized and approved by the Tanzania Food and Drug Authority or Pharmacy Council.

The continuing education provided shall be mandatory and shall constitute a prerequisite for annual license or permit and their renewals.

#### *Hygiene*

(i) Personal hygiene

This is a set of protective measures an Duka la Dawa Muhimu dispenser should exercise so as to protect himself from being contaminated or to contaminate others or articles around him. This include among others, use of handkerchief to cover the nose and mouth when sneezing, coughing; to avoid handling drugs with bare hands and general cleanliness.

Good and hygienic appearance:

One of the principles embedded in the practice of pharmacy is cleanliness; others are accuracy and politeness. When the dispenser’s appearance to patients is good and attractive, the patients tend to build confidence on the services they will receive from him. If the appearance of the dispenser is shabby the patients would not have trust on whatever service is rendered to them by such a dispenser. The dispenser should put on white professional coat or white dress and avoid working under the influence of alcohol and or illicit drugs.

#### *Working conditions and personnel identification:*

The working environments need to be scrupulously clean and tidy. This condition again builds confidence and trust of the services provided by the dispenser.

The dispenser is required by law so display his Duka la Dawa Muhimu certificate and wear a name tag bearing his photograph that identifies him as Duka la Dawa Muhimu dispenser. Wearing of this badge again adds trust on the part of the patients served by the dispenser.

#### *Contract*

(i) Background

Past experience shows that where there is no such contract there has been tendencies on both owners and dispensers to deceive one another. Terms of services of dispensers have been terminated without prior notice; some owners have failed to adhere to remuneration agreements since most of these agreements were made verbally. On the part of dispensers, some/many of them have left the premises without prior notice to the owner, mainly when they get better pay from another proprietor. These incidences have caused a lot of problems to the two parties and more so to the community served. In some cases the business collapsed altogether causing losses to the owners.

(ii) Advantages

 The main advantages are:

Each party is protected by the contract from any deception move

The contract provides for review of terms of service and remuneration packages

The contract gives sufficient time for the owner to finding a replacement Dispenser in case the one on post does not wish to continue with the employment

Generally, the contract provides room for openness and discussion especially in cases of disputes

(iii) Requirements of the law on Contract

The law requires the Duka la Dawa Muhimu owner and dispenser to enter into a contract specifying the terms and condition of service. It is further required by law that a copy of such contract be deposited with the DDTC.

Premises:

#### *Location*

Background

In the current practice of Part II drug outlets, the location of premises is not given its deserved consideration henceforth; the outlets in many instances have been located in unsuitable places. The location of Duka la Dawa Muhimu premises is important since it may hinder accessibility of its service to the public if improperly located.

#### *Duka la Dawa Muhimu law requirements on premises*

* Duka la Dawa Muhimu shop should be located in a place which is:
* Far from any building in which alcoholic drinks are sold or taken
* Easily accessible to the members of the community
* Not yet secured by another Duka la Dawa Muhimu shop to avoid congestion and unnecessary business competition
* Priority shall be given to Duka la Dawa Muhimu shop located nearby dispensaries and health centers

#### *External and Internal Conditions of Duka la Dawa Muhimu Premises and its Identification.*

Background

The External and Internal conditions of many premises in the current practice of Part II drug outlets are not conducive for the nature of the business being undertaken therein. Some of the roofs do leak during rainy seasons, they are not pest-proof and their floors and walls are not smooth for easy cleaning. The rooms in these premises are tiny and again many of them are a single room in which the activities of drug dispensing and storage are carried out. There are, in most of these premises, no provisions of space/room for patient counseling services. Most of their features cannot be differentiated from the shops selling regular commodities.

Requirements by the Law

* The Duka la Dawa Muhimu shop shall be built with strong and durable material capable of preventing leakages and vermin (rodents, birds, and pests).
* The premises shall have enough space and rooms to cater for dispensing, drug storage and patient counseling services.
* It should be lockable with sufficient ventilation means and smooth floor and oil-painted walls.
* The Duka la Dawa Muhimu shop shall have features that differentiate clearly from DLDB with a “NO SMOKING” sign.

Drug Quality and Dispensing

#### *Product requirement*

Drugs that are required to circulate in the Tanzania market must be registered. Drug registration is done by the Tanzania Food and Drug Authority. The registration process involves a number of steps, one and very important being the verification of the quality of drugs by the Board. Drugs are subjected to analytical and physical tests and upon passing the tests are authenticated for circulation into the market. This process eliminates the substandard and counterfeit products from the market. It is with this background information for which Duka la Dawa Muhimu should purchase, store and dispense registered drugs only.

Packaging of drugs is meant so protect the drugs from the hazards resulting from normal handling. Poor packaging will therefore guarantee the integrity of the drugs. Even if the drugs produced are of good quality, poor packaging will spoil this good character and render the drug into being poor quality drug. Packaging should protect the drugs from moisture light and other hazards.

#### *Registered Drugs:*

Drug registration is the process of authentification of drugs that enter or intended to enter the Tanzania market that they are quality drugs and their attributes recorded by the Tanzania Food and Drug Authority. As aforesaid, drugs are registered in order to assure the consumers of drugs that the drugs are of good quality and on the other hand protect them from taking products (drugs) that are of poor quality, substandard, counterfeit or even dangerous products

#### *Dispensing Requirement:*

Drug dispensing requires that adequate and correct instructions are given to the patient by the dispenser on proper use of drugs.

There are drugs which are in common use easy to use and do not pose great danger to patients lives. These are called “over the counter (OTC)” drugs. They can be sold without the necessity of bearing a prescription by the patient.

#### *Prescription Drugs:*

These are drugs which shall only be dispensed against a written prescription given by a duly qualified medical practitioner, dentist or veterinary surgeon. The prescriptions shall be retained in the premises for which the drugs were dispensed for a period of not less than two years. The name and quantity of each drug dispensed shall be entered in the prescription book.

Record Keeping and Documentation

#### *Background*

Records are kept to serve as reference material in cases of problems and as a means of checks and balances on the performance of the Duka la Dawa Muhimu shop. Correct records are as important as the materials (e.g. drugs) themselves thus they should be kept in a manner in which permits easy retrieval of these records.

Types of records:

* invoices and receipts
* drug ledgers
* register of expired drugs
* complaints handling book with respect to drug reactions information obtained from patients
* correspondences in relation to drugs
* inspections records and reports

#### *Documentation*

Documentation is a process of recording something (e.g. drug particulars) in an official or formal paper, form or book.

 Documents:

* special file for keeping all correspondences related to drugs, directives and services from the regulatory authorities
* Inspector’s Register Book and
* Other Registers.

Reference Materials

#### *(i)Background*

The importance of obtaining and keeping reference materials in the premises is similar to that of keeping up-to-date records. Vast knowledge is found in reference materials. No one is capable of remembering every thing he learnt from any set of training. It is therefore very important to maintain an up-to-date set of relevant reference materials all the time. The Duka la Dawa Muhimu owners and dispensers must develop a good culture of buying and using reference materials most frequently.

(ii) Requirements by law

For the purpose of easy reference making each Duka la Dawa Muhimu shop needs to have and maintain the following reference materials:

* Drug use Guidelines for Pharmacy Health care facilities
* Good Dispensing Manual (English and Kiswahili versions)
* Current Pharmacy Laws and Regulations
* Duka la Dawa Muhimu Drug lists
* Current listing of Registered Pharmaceutical products
* Duka la Dawa Muhimu standards and Code of Ethics
* Current listing of Duka la Dawa Muhimu Wholesaler
* Any other references as may be recommended by the licensing authority

It is important to have them for quick reference and accurate performance of drug delivery practice.

They are needed for use at any one point in time of Duka la Dawa Muhimu shop viability.

The list above is not exhaustive. It is therefore necessary for the Duka la Dawa Muhimu shop to up-dating the list of reference materials from time to time. One way of keeping the list up-to-date is by keeping in contact with the Tanzania Food and Drug Authority for the latest information concerning drug matters.

#### *Duka La Dawa Muhimu Extended Prescription Drug List*

The basis for selecting these drugs centers on community need, level of prescribers/dispensers, stability and storage conditions.

General consideration has been made that these drugs will be managed appropriately at these levels and easing the problem of availability of key drugs to the community.

Wholesalers

#### *General wholesalers*

These are wholesalers registered by the Tanzania Food and Drug Authority as distributors of registered Part I and II drugs. They shall also sell the approved Duka la Dawa Muhimu extended drug list to the Duka la Dawa Muhimu shops.

Duka la Dawa Muhimu Restricted Wholesalers (DRW)

#### *(i)Background*

These are a special group of wholesalers registered by the Tanzania Food and Drug Authority as distributors of Part II drugs and Duka la Dawa Muhimu approved prescription drugs. The operations of Duka la Dawa Muhimu Wholesaler will be solely on non-availability of a registered wholesaler within the district. The Duka la Dawa Muhimu Wholesaler will be supervised by a Pharmaceutical Technician and therefore do not need to have a full-time Pharmacist but rather the Pharmacist in-charge of the Wholesale Company shall supervise the Pharmaceutical Technician.

#### *(ii)Advantages*

The purpose of introducing this group of Wholesalers is to facilitate the availability of Duka la Dawa Muhimu drugs to those districts which are less privileged to having easy access of supply of drugs. The Duka la Dawa Muhimu owners and dispensers need not travel a long distance to get drugs for their shops. Furthermore, the provision of creating this group of Wholesalers will plunge-in the loopholes that would have been taken by non registered suppliers of drugs to assume this role and therefore it is an important safety valve for the law enforcers.

 (ii) The Duka la Dawa Muhimu Wholesaler law Requirements

* There shall be Duka la Dawa Muhimu Restricted Wholesaler shops.
* The operation of Duka la Dawa Muhimu Restricted Wholesaler shall be solely on non-availability of a registered wholesaler within the District.
* The Duka la Dawa Muhimu Restricted wholesaler shall be licensed by the Tanzania Food and Drug Authority and subject to any other written law in a manner similar to that of the wholesaler.
* The supervision of Duka la Dawa Muhimu Restricted Wholesaler may be provided by a Pharmaceutical Technician supervised by a Pharmacist to be employed by the wholesaler.
* The Duka la Dawa Muhimu Restricted Wholesaler shall be permitted to stock and sell only Part II drugs and Duka la Dawa Muhimu approved prescription drugs.
* It shall be the responsibility of the Duka la Dawa Muhimu Restricted Wholesaler to verify the credentials of Duka la Dawa Muhimu shop prior to stocking and selling any prescription drug.
* Duka la Dawa Muhimu Restricted wholesaler shall also be permitted to sell drugs and supplies on a wholesale basis to licensed health facilities such as missions, public sector, private dispensaries and other facilities of similar nature.

Duka la Dawa Muhimu Restricted wholesaler selling approved prescription drugs to

Duka la Dawa Muhimu or licensed health care facilities shall:

* Be required to maintain a separate register for the sale of prescription drugs; and
* Provide to the client an invoice or receipt listing all drugs sold.
* Commit an offence if Duka la Dawa Muhimu Restricted Wholesaler shall sell any Part I drugs to a non-accredited drug dispensing outlet.

**INSPECTION**

#### *Background*

Inspection is important in ensuring that the established Duka la Dawa Muhimu/DLDB services and product standards are maintained. Since the non-accredited drug outlets are likely to continue with their operations, at least until when the Duka la Dawa Muhimu system is in full operation within a district, it is necessary to inspect these facilities. It is unlikely that the current and projected Tanzania Food and Drug Authority inspection capability will be sufficient to meet the inspection requirements for both Duka la Dawa Muhimu and non-Duka la Dawa Muhimu shops. Thus, a supplementation of the Tanzania Food and Drug Authority resources is required to provide the routine inspections and reporting under the Duka la Dawa Muhimu/DLDB system. The involvement of the four levels of governance is necessary, that is, local, district, regional and national (Tanzania Food and Drug Authority). The inspection and monitoring activities of Duka la Dawa Muhimu/DLDB is therefore meant to be a partnership undertaking.

#### *Local level inspection*

A sub-committee under the Ward Health Committee will be

responsible for carrying out inspection at the local level of

Duka la Dawa Muhimus and non-Duka la Dawa Muhimus drug outlets. The inspection and monitoring will be a day to day activity of the sub-committee.

The authority for decision making at this level of inspection is delegated to the Ward Health Committee and Ward Development Committee, the latter being the higher authority committee than the former, at this level.

#### *District level inspection*

The DDTC will receive the inspection reports from all Ward Development Committees and may carry out additional inspection where it deems necessary. The authority for decision making at this level of inspection is delegated to the DDTC.

#### *Regional level inspection*

This was the lowest level of inspection recognized by the law in the current system. In the proposed Duka la Dawa Muhimu/DLDB system, RDTC may carry out inspection of Duka la Dawa Muhimu and Part II drug shops where it deems necessary. The authority for decision making at this level of inspection is delegated to the RDTC.

#### *Tanzania Food and Drug Authority inspection*

The Tanzania Food and Drug Authority shall be responsible for inspection and monitoring activities at the national level. The Tanzania Food and Drug Authority may carry out inspection in respect of any premises which provide pharmaceutical services such as pharmacies, Part II Drugs shops and Duka la Dawa Muhimu. The Board is the final decision making body with respect to all drug/pharmaceuticals related matters.

Appointment of Inspectors

#### *Background*

In the current system, the inspection involved only the regional and national inspectors, while at the district and further lower levels there are no legally appointed inspectors. As the number of DLDB is very large (estimated to be over 4,000 outlets countrywide) averaging between 30 to 40 outlets per district and taking into account the limited number of inspectors at the Tanzania Food and Drug Authority and Regional level, very few facilities were covered during inspection per year. As most of the facilities were not inspected/not monitored, their services were as well not controlled resulting into high level of non-compliance by almost all DLDB outlets.

#### *Powers of the TFDA*

* All Duka la Dawa Muhimu and Part II Drugs shops inspectors are appointees of the Tanzania Food and Drug Authority. They are required to receive special Tanzania Food and Drug Authority training course and operational tools such as Identification cards and inspection forms.
* The Tanzania Food and Drug Authority has the power to appoint and withdraw any appointment of an inspector if it feels that such steps are necessary in the public interest and the decision of the Board on this matter is final.

#### *Inspectors’ interests*

* Inspectors are required to declare their business interests by filling- in an “observation form” provided by the Tanzania Food and Drug Authority before they are appointed as inspectors.
* Inspectors are expected to carry out their duties without prejudices and in a professional and ethical behavior.
* Inspectors are directed to refrain from corruption tendencies.
* Duka la Dawa Muhimu personnel/owner relationship should be that of an employer and employee covered by a written contract.
* Both Duka la Dawa Muhimu personnel/owners should co-operate with the inspectors since they (inspectors) are important partners in the Duka la Dawa Muhimu business and not enemies. They are enforcers of the law who are charged to seeing that rules and regulations are observed in all Duka la Dawa Muhimu operations.

#### *Accusations and/or complaints*

Accusations/complaints laid against an inspector between him and owner/seller about corruption syndicate will be reported to higher regulatory authority who upon thorough investigation report to the appropriate government organs dealing with issues of corruption.

#### *Inspection Procedures*

Requirements on how to carry out inspection:

* Inspectors are required to carry out inspection in teams of at least two inspectors and no circumstances permits individual inspection. This conditionality is important on both sides, the inspectors on one hand and the Duka la Dawa Muhimu owners/dispensers on the other hand. The main reasons are:
	+ To avoid bias in the exercise of inspection
	+ To avoid abuse of powers by individual inspectors
	+ It is quite insecure for an inspector to carry out inspection lonely.
	+ Individual inspection may be associated with corruption tendencies.
* It is very important for all Duka la Dawa Muhimu and Part II Drug inspectors to inform (in writing) the local authorities before and after they have conducted the inspection. This act builds trust and rapport to each other.
* Use of TFDA/TFDA) Identification cards adds trust to the Duka la Dawa Muhimu personnel and owners and see that the exercise is authentic and official.
* End of Inspection

At the end of each inspection exercise, the inspectors are required to complete all the required information in the Inspectors’ Register Book and the owner or seller and all inspectors in the team should sign therein.

Report writing and submission

#### *(i)Requirements*

The quarterly summary reports of inspectors carried out should be submitted by the Ward Health Committee to the Ward Development Committee. The Ward Development Committee will take actions on matters pertinent to its level and the report will be submitted to the DDTC. The DDTC will act on the reports accordingly and appropriately and shall submit the report to the Tanzania Food and Drug Authority and copies to the RDTC.

#### *(ii)Duka la Dawa Muhimu Owner/Dispenser collaboration with Inspectors*

There is a dire need for the owners/dispensers of Duka la Dawa Muhimu shops to collaborate effectively with the inspectors and vice versa so as to avoid to seeing each other as enemies.

Offences and Penalties

#### *Offences:*

Upon violation of laws and regulation any subject is liable on conviction for punishment under the exact laws and regulation.

*Example:*

Offence Duka la Dawa Muhimu selling drugs which are not registered by the Tanzania Food and Drug Authority.

#### *Penalties:*

The shop may be closed by the Board. Further to it the person in question may be subjected to imprisonment, paying a fine or both.

Duka La Dawa Muhimu Approved Prescription Drug List

#### *(i)Background*

The Duka la Dawa Muhimu approved prescription drugs list has been drawn up taking into consideration the prescribing levels in line with the national Standard Treatment Guidelines (STG). A consideration has also been made to ensure that the public get reasonable access to the most essential (key) drugs needed to treat the common diseases found in the community.

# Drug Quality and Dispensing

## Session 1: Quality Assurance

## PURPOSE:

Drug quality is a concern to every one in a community for several reasons. Drugs of poor quality not only affect our health but also economically in terms of money wasted through purchase of such drugs which do not cure our disease and also time wasted due to late recovery. It is therefore necessary for every one providing services of drugs in terms of manufacturing, distribution and sales to make sure that all drugs made available to the public meet all quality requirements as set by the TFDA or any relevant drug authority. The quality of drugs at the same time depends on the degree of care taken in its preparation, storage and distribution.

Quality assurance of a drug includes all procedures to analyze and setting of all parameters that may influence the quality of particular drug. It is the sum total of organized arrangements made to ensure that a particular drug is of quality required for its intended use. In simple language this can simply be said that all preventions taken to make sure that drugs are of good quality. Below a few examples of elements of quality assurance that form part of the steps taken to ensure good drug quality are given.

## OBJECTIVES:

## By the end of this session, participants will be able to

1. Describe elements of quality assurance relevant to Duka la Dawa Muhimu/ADDOs
2. Identify cause/sources of poor drug quality and how to prevent them

## TIME:

Elements of quality assurance*:*

#### *GMP (Good Manufacturing Practice):*

GMP or Good Manufacturing Practice comprises that part of quality assurance aimed at ensuring that a product is consistently manufactured to a quality appropriate to its intended use. Any drug manufacturing company must meet all GMP requirement set by the Pharmacy Board before it is licensed to carry out any manufacturing activities. This is done through inspection and registering the company by the Pharmacy Board.

Inspection of drugs:

The aim of inspection is not to harass the individuals providing drug services or manufacturing them, but inspection aims at ascertaining that all laws and regulations governing drug production and services are strictly adhered to by every provider. For this reason drug inspectors at all level have the obligation of regularly inspecting the manufacturing plants and all drug out lets such as DUKA LA DAWA MUHIMU, DLDB (Duka la Dawa Baridi) hospital and stores. They have the authority to enter any premise where drugs are either stored or distributed to the public.

 Registration of drugs:

Why register drugs? Registration starts with a thorough inspection of the manufacturing company by the Pharmacy Board. This process assures the Board about the conditions under which drugs are manufactured. Once the Pharmacy Board has satisfied itself that the company meets all GMP requirements for the manufacture of that drug and after testing the product in its laboratories, will the Board then register the drug. This procedure answers our previous question why register drugs. Drug registration is a process of ascertaining the quality of each product that is in the market. This means sale of any drug that is not registered to any person is subjecting the person buying the drug to a very high risk of taking a drug whose quality is very doubtful. It is important therefore that drugs should be registered by the Pharmacy Board which carries out the inspection of the manufacturing company and checks the drugs through testing them in its laboratories before allowing them to be marketed in the country. ***Therefore DUKA LA DAWA MUHIMU shops as for any other drug service providers should only buy, store and sale Pharmacy Registered drugs.***

Training of personnel responsible to handle drugs:

Drugs are manufactured using people. Drug services are proved by people. For the correct , and adherence to requirements regulating drugs, the people dealing with drugs in any form should be well trained in order for them to correctly manage the manufacturing processes for factory workers and for service providers understand the drug storage requirements and identify any drug quality changes thus preventing sale of drugs of poor quality to patients.

Quality control of drug:

The Pharmacy Board after inspecting a manufacturing company, takes samples of all drugs that the company wants to bring into the Tanzania market and carries out quality testing in its laboratories. Only drugs which pass Pharmacy Board tests in terms of quality can be registered by the Board. You can see the importance of having drugs in your shop which have been registered by the Pharmacy Board. Drugs which are not registered by the Board have not been subjected to quality control tests and therefore could be of poor quality. ***DUKA LA DAWA MUHIMU owners/dispensers and any other drug service provider should make sure that all drugs stored and sold from their facilities are registered because these are tested in the Pharmacy Board quality control laboratories and their quality status is assured.***

## Possible causes of poor drug quality:

The following are reasons that may lead to alter the quality of a drug:

Poor manufacturing conditions:

This is when the procedures for good manufacturing practice of drugs are not well managed/conducted. Manufacturers that have not been inspected or not approved by the Pharmacy Board are likely not meeting all GMP requirements. They may in most cases produce products which are of poor quality. You should avoid buying drugs from such companies which are not approved by the Board. ***Avoid buying drugs from unauthorized dealers they most likely will have drugs from such companies.***

Poor packing:

Packing of drugs is important at all level. Although drugs are may be correctly packed at the factory, at outlets like DUKA LA DAWA MUHIMU, when drugs are sold to the patients, they may be incorrectly packed. Considering the household conditions of our community, drugs packed poorly may easily be spoiled and lose its potency. To avoid this happening drugs should be packed in plastic bags and whenever possible supplied in their original pack. It is recommended that DUKA LA DAWA MUHIMU outlets buy only drugs, whenever possible, which are packed in strips or -----. Large containers with hospital packs should be avoided as much as possible. However, if is necessary to dispense them in a non-original pack, this should be done using good quality sealable plastic bags or good paper bags.

Poor transportation and storage conditions:

Suitable storage and transport facilities should be made available. Transporters should be alerted whenever they are required to transport drugs. Subjection of drugs to excessive moisture, heat and light dring transport or storage may be the major cause for originally good drugs becoming of poor quality before their expiry dates. All conditions for transportation and storage of any drug like tempe-rature, humidity, sun light, moisture etc as set by the manufacturer should be strictly followed. DUKA LA DAWA MUHIMU dispensers should be aware of drugs that are sensitive and easily destroyed by these factors.

It is important to remember that one of the reasons why some drugs have not been considered to be introduced in the DUKA LA DAWA MUHIMU outlets is the uncertainty of storage conditions especially in the rural areas. You should therefore abide by the approved list of drugs which can stand the most common storage conditions.

Poor knowledge on drugs of personnel:

A basic understanding of the nature and basic requirements on handling drugs is very important. Owners and dispensers who do not have the basic understanding of basic nature of drugs cannot be expected to adhere to conditions that will preserve their quality. It is important that all drug service providers have the basic knowledge on drugs that are handled by them. The DUKA LA DAWA MUHIMU program intends to train all owners and dispensers and set a continuing education system for these providers to improve both quality of drugs and services.

## How to prevent poor quality drugs:

The responsibility of preventing poor quality drugs from reaching our members of the community is of every one who provides of drug services although it may be at different levels. In its responsibility to make sure that drugs in the market meet the required quality status, carries a number of activities to ascertain that requirement underneath are some of the activities that are carried out by the Pharmacy Board or its appointed bodies at different levels. The Board through its Drug Inspectors and quality control staff carries out:

* Inspection and registration of drug manufacturers
* Inspection of drug outlets like Pharmacies, DUKA LA DAWA MUHIMU, DLDB, Health facilities and drug stores.
* Quality control including testing of drugs
* Registration of drugs before they are marketed in the country
* Provision of general or specific training to those providing drug services to the community eg. Owner/dispenser training in the DUKA LA DAWA MUHIMU project.

DUKA LA DAWA MUHIMU owners and dispensers can help the Pharmacy Board by adhering to the given requirements and being ready to change our behaviour and convince others to do the same. You should also be concerned when some people act against the required regulations because this may be the cause of introducing poor drug quality in your community. As a good citizen you should report immediately to the authorities concerned to prevent serious drug quality in your community.

## Some Signs of Poor drug quality:

Drugs have specific properties or characteristics such as colour, smell or even their physical shape. Some drugs for different reasons named above, may change their characteristics even before their expiry date. Changes of basic drug properties or chariteristics may be very important indications of change of quality of the drug. In many cases it shows the deterioration in drug quality. You should always be very observant before you sale any drugs to your patients. If you notice any of the following changes or problems do not sale the drug, because it may have deteriorated in quality. Some of these signs are:

* Change of odour (smell ) before the expiry date of a particular drug is reached.
* Change of colour before drug expiry date
* Easy to be broken (Breakage/friability)
* Poor disintegration of tablets(time taken for a tablet to disperse/dissolve).
* Growth of moulds or yeast (fungi) onto the surface of some drug formulations are also signs of poor quality. DUKA LA DAWA MUHIMU dispensers that do not follow the good/proper procedure of handling of drugs and personal hygiene may cause or lead to the growth of mould or yeast.
* Presence of foreign bodies/particles:

Foreign particles of any materials that are not part of drug formulation composition is an indication of poor drug quality.

* Sticking of tablets/capsules: The tablets or capsule should be non-sticking. Sticking of tablets together shows that they have a high content of moisture which is already a concern on the quality status of the product.
* Separation of Emulsion:

An emulsion is a continuous homogenous mixtures which even at rest it remains so. Therefore if it separates or breaks it suggests that the quality of the product is poor and should not be used, especially even when effort through shaking the container fails to provide a stable emulsion.

## Expiration:

The expiry date of a product is the date after which the product/drug is not intended to be used. It is always written on the container. However the quality of a drug may change before its expiry date if its specific conditions of storage packaging, transportation are not properly maintained.

More on the expiry date will be dealt with in the dispensing chapter

Roles of dispensers/owners in ensuring good quality drugs:

As it was said previously, the role of controlling or maintaining the quality of drugs distributed in your community. Underneath are a some of the things or steps you should take in order to ensure that drugs that you sale are of the required quality. You should always:

* Buy registered drugs only
* Buy drugs from Pharmacy Board – registered wholesaler (***never buy drugs from unauthorized sellers or street vendors***).
* Do not dispense drugs with your bare hands
* Buy drugs with long expiry dates(sufficient shelf life)
* Store drugs correctly (watch ;temperature, moisture, humidity packaging material)
* Store drugs on their original package/container
* Cover containers all the time and immediately after dispensing
* Dispense drugs in good and protective packages e.g. plastic bags etc.
* Never dispense expired drugs and store expired drugs properly for disposal before unfaithful people take them for sale..

**DEFINITIONS AND BASIC TERMINOLOGIES**

Mixing:

Mixing is a process whereby you combine different materials into one uniform mass by stirring them together. This process has to be carried out very carefully as you have to make sure that every part of this mass is uniform (in order to make a homogeneous mixture).

You probably know that not all materials can form a stable mixture; for example water and oil do not form a stable mixture.

Dilution:

This is the process whereby a concentrated solution is made weaker. This is usually done before use. Dilution of drugs is mostly done with purified water but other liquids are also used some times. Disinfectants and antiseptic solutions very often require dilution. If you are not sure of the correct dilution for these disinfectants/antiseptics, ask the supplier.

## Dilution of Liquids

#### *How to make a dilution?*

There are some concentrated liquid preparations which you may have to dilute before dispensing. (common for antiseptics and disinfectants). Example: Savlon Hospital concentrate is often diluted with purified water before use for disinfection or antiseptic purposes. If you have to prepare one litre of a 1 in 100 Savlon dilution you will proceed as follows;

* To prepare a **one litre** of a **1 in 100 (1:100)** dilute solution, you should measure **10 mL** of Savlon Hospital Concentrate and transfer it to a **one litre measure.**
* Rinse the measure which you used for measuring the concentrate with some purified water and transfer the **rinse** to the one litre measure.
* Add purified water up to **one litre**
* Transfer the preparation to a container, close and label it- **(Savlon 1:100)**

**Note:**  If you want to prepare **500mL** of this dilution you need **5 mL** of the concentrate and for **2 litres** you will need **20 mL**.

Reconstitution:

This is a process where a specified amount of water is added to a powder form of a drug. This method is used when drugs are not stable in water/ solution. This means that the drug breaks down if left in water/solution for a longer period of time. For this reason, you must only reconstitute just before use. Such examples of powder form of drugs include Benzyl Penicillin, (Injection), Amoxycillin (syrup) etc.

**Contamination:**

In pharmacy practice the raw materials or finished products should not contain unwanted materials. If material used contains any amount of unwanted foreign bodies, it is said to be contaminated. Contamination may be caused by the manufacturer or transporter, dispenser or the user. Careful handling of materials and finished products with clean hands or equipment prevents contamination.

Cross-contamination:

This occurs when you contaminate one of the drugs in your pharmacy with another one during the dispensing process. This happens mostly if you forget to thoroughly clean your equipment every time it has been in contact with a different drug. Use of single spoon when dispensing different drugs is a major course of cross-contamination.

It may also happen if you use your hands when counting tablets and/or capsules.

### Toxicology: Deals with the undesirable (overdose) effects of drugs.

### Tolerance: Ability to receive an increased dose of a drug without showing toxic effects. It becomes necessary to increase the dose of a drug to obtain an effect previously obtained with a smaller dose.

### Anaphylaxis (Acute hypersensitivity): A life threatening clinical response that appears within minutes after administration of a drug which the patient has once received. Common examples are penicillin’s, vaccines, insect stings and blood products. Anaphylaxis, is one form of very severe allergic reaction.

**Habituation:** A desire to continue taking a drug in increasing dose. There are

 some psychological and physiological dependence but no withdrawal symptoms

follow when the drugs are stopped. A good example is the use of alcohol. At first

one can start with a small amount and get drunk, however after continued use,

the same person can take larger doses to get the same previous effect. This is

called habituation.

**Addiction:** This is a psychological and physiological dependence leading to

 withdrawal symptoms if the drug/substance is stopped. It is characterized by a

strong desire to get the drug or substance by any means, even it will mean

breaking a shop to get it. One example of such drugs is diazepam (valium) that

may cause addiction if used very often and uncontrolled. Once a person starts

taking diazepam uncontrolled, the desire to use it increases. If this situation is

reached, any sudden stoppage of the drug, due to a strong desire to

get the drug, the affected person may even break into a shop to get the drug

For this reason diazepam is one of the a restricted drug and for this reason it not

allowed in the DUKA LA DAWA MUHIMU shops.

### Potency: Is the amount of drug in relation to its effects. For example, two

 different drugs treating the same disease – one with a strength of 5mg and the

other of 10mg. The formulation with a strength of 5mg is more potent than the

one with 10mg.

### Drug action:

It is important to know what happens to drugs after they have been taken. A drug can only act after getting at the site of action. This takes place through a chain of processes. Here below, these processes are described.

* Absorption
* Distribution
* Metabolism
* Elimination

### Absorption:

For a drug to be effective it must be moved from the point of administration, transport by the blood to the point of action. The process of absorption can be affected by a number of factors. These factors are:

* age,
* weight
* time of administration,
* genetics,
* Formulation (pharmaceutical factors),
* Biological factors,
* Route of administration.
* Presence or absence of food in the stomach

### Distribution:

When a drug has been absorbed it is transported by blood and distributed to the tissues and organs. In this way a drug reaches the sight of action or meets the micro-organisms which may happen to be in the tissues or blood stream. Due to various factors given in the above section distribution is often not even. Some of the drugs may selectively bind to plasma, tissue proteins, or be localized within a particular organ. This is why distribution may effect the action of a drug in treating a particular disease.

Metabolism: **(*The breaking down of the drug*).**The process of breaking down the basic drug component (chemical structure) into other compounds, usually less toxic or active, before elimination is called metabolism (breaking down). This process may be long or short. If the process takes long in the body, this means the active drug may stay long and be active in the body for a longer time. Depending on this time taken to breakdown the drug, different drugs have different dosage scheme. The longer it takes to complete this process the larger the interval between one dose to the other. When dispensing each drug you should always take that factor into account. A good example is the **PS** drugs where only one dose is enough or Co-trimoxazole where the interval between one dose to the other is 12 hours. These drugs usually take longer time to be metabolized.

Elimination**: (***The Removed a Drug from the Body*)

After a drug has been metabolized, the broken down components must be eliminated from the body For this to happen, they are changed into soluble compounds which dissolve into blood and other body fluids and transported to excreting organs.. These dissolved substances are usually eliminated through urine, feaces, sweat and breath.

# Common Medical Conditions

1. **Overview of Disease and Pharmacological Classification of Drugs**

### Some Examples Allergic Conditions:

#### *Eczema:*

This can a minor or very serious dermatitis characterized by severe inflammatory conditions of the skin affecting small or a large proportion of the body.

*Hay fever:*

 This is an allergic rhinitis as a result of allergy to a drug or plant pollens. Hay fever may also be seasonal or perennial (nonseasonal) and arise from exposure to a number of allergens. It is characterized by rhinorrhoea,and sneezing with itching of the eyes, ears and palate. Coughing, wheezing and nasal congestion are also common seasonal,

#### *Bronchial Asthma:*

The one due to allergy is usually called Extrinsic (allergic or atopic) asthma – demonstrable allergy (type I hypersensitivity to inhaled allergic/antigenic material). It is characterized by inflammation, particularly bronchial resulting into difficulty in breathing and cough. Sometimes the reaction may be very serious, and therefore you need to advice the patient to look for medical advice instead of just treating him/her-self.

Allergen may be due to contact, ingestion, inhalation, injection of an allergic substance or drug.

*Treatment:*

Essential Drugs which can be used include antihistamines like chlorpheniramine and steroid creams/ointments.or antihistamine creams If the reaction is very severe, the patient should be adviced to see a medical practitioner immediately.

**Chlorpheniramine**

**Presentation:**

Tablets 10mg; 2mg

Elixir/syrup 2mg/5mL

**Indication:**

Conditions caused by allergic reactions – contact allergy, seasonal rhinitis, insect stings or bites, drug allergy

**Dosages (for children and adults)**

Adult: 4mg every 6-8 hours

Children: 0-1 year 1mg 12 hourly

 1-5 years 1-2mg 12 hourly

 6-12 years 2-4mg 12 hourly

Duration of treatment usually 3 days

**Precautions:**

* Not be given to patients with serious heart/liver diseases
* Patients suffering from muscular weakness
* Not for common colds
* Not be used when breast feeding or during pregnant
* Use with caution in epileptic patients

**Side effects:**

Causes drowsiness/convulsions

**Vital information to the patient**:

* Not to use alcohol
* Not to drive vehicles/bicycles

Not to work with dangerous machines

## Anaphylaxis and shock (acute hypersensitivity)

Anaphylaxis is one form of allergic or severe allergic reaction usually for very sensitive persons to a substance that causes allergic reaction.

### Symptoms

The main characteristics of this reaction is the severe-ness (mainly characterize

as anaphylactic shock). The main features of this reaction include:

* Acute respiration distress (difficult to breath)
* Tachycardia, (fast and not regular heart beat)
* Pale, cool skin and skin rashes,
* Convulsions
* Hypotension
* Oedema (swelling of part of the body due to liquid accumulation)

This is a very serious reaction and if untreated, the patient may become unconscious and death may follow within a short period.

### Treatment

Treatment for anaphylactic shock is urgent. Drugs which are needed to save life are adrenaline and hydrocortisone injection. You cannot help this patient in your drug outlet, but you can facilitate for the patient to be moved to the nearest health facility to be treated. The drugs which are available in you outlet are for sale under prescription only. You are not allowed to provide this service in the drug outlets.

### (ii) Chronic Bronchitis:

This is a irreversible obstructive airways disease, which usually results from smoking or prolonged exposure to environmental irritants. It is defined as cough with the production of sputum for at least three months of the year and for more than one year. Repeated respiratory-tract infections may contribute to its development.

Symptoms:

Chronic bronchitis is characterized by chronic or recurrent cough and the production of excess sputum, which may be clear, or purulent in the presence of concurrent infection. In severe disease, drowsiness, headache, weight gain and peripheral oedema may occur.

#### *Treatment:*

This is a good example that not every cough can be treated by an antibiotic. You should always remember that there can be cases of cough were bacterial infection is not the primary cause. In such cases the cause must be known first before any drug is dispensed.

The treatment of chronic Bronchitis is to identify the cause. If it is due to smoking, or irritation, the patient should be adviced to avoid the causes. Drug treatment may include bronchodilators, antibiotics if there is any respiratory infection. Sometimes cough suppressants may be necessary but should be used with care.

Common micro-organisms which cause pneumonia are:

* Streptococcus pneumoniae
* Staphylococcus pyogenes
* Klebsiella pneumoniae

Pneumonia may also be caused by virus, fungi, protozoa, chemical or physical irritants or allergic reactions in the lungs.

You can see why it is important to establish the cause of the problem before dishing out any antibiotic to such a patient.

Symptoms:

Common symptoms include cough, **dyspnoea** with **tachypnoea**, chest pain on coughing, purulent sputum production (initially scanty) **haemoptysis** and diminished chest movements on the affected side. There is fever with rigors and other symptoms of systemic infections for example insomnia, headache, delirium and weakness. Complications of untimely treated pneumonia can be very serious and life threatening. You should always advice the patient to immediately seek medical advice before you give him/her any drugs.

Treatment:

Treatment consists of bed rest, and administration of appropriate antibacterial drug(s).

### (b) Bronchitis:

Bronchitis is characterized by inflammation of the trachea and bronchi and may be acute or chronic.

(i) Acute Bronchitis:

this is usually self-limiting and is commonly due to viral infection. It often follows a cold or influenza; the causative micro-organisms of secondary bacterial infection are commonly Streptococcus pneumoniae and Haemophilus influenzae.

#### *Symptoms:*

Common symptoms include cough, which may be dry or productive and expiratory wheezing, which can be cleared by coughing.

#### *Treatment:*

For a health person treatment is not necessary as it is in many cases self-limiting. However in case of secondary bacterial infection, appropriate antibacterials may be prescribed. A cough suppressant such as those containing codeine, dextromethorphan and pholocodeine may be given. Nevertheless special care should be taken while dispensing cough suppressants because they may cause retention of sputum and this may be harmful in patients with chronic bronchitis. Furthermore cough depressants tend to cause constipation

### Trematode Infections

Common disease among trematode infections is schistosomiasis or Bilharziasis. There are three types of Bilharziasis:

## Schistosoma haematobium:

Larvae of S. haematobium penetrate human skin and are carried in the blood to the lungs and then to the liver. In the veins of the liver, the larvae develop into adult worms. The adult worms inhabit the veins surrounding the bladder, that is why the disease is sometimes known as “bladder Schstosomiasis”. Ova are shed into the urine and if in fresh water they hatch and enter aquatic snails where it develops into cercariae. When the crcariae is released in water it may penetrate skin and enter the blood stream

Symptoms of this disease include: fever, painless terminal haematuria ( blood in urine), protein and pain during urination. Heavy infections, and irritation of the bladder causes dysuria.

The ova in the bladder wall may cause scarring, leading to obstruction of the opening of the ureters and distension of the kidney (hydronephrosis). Carcinoma of the bladder may occur in long standing and untreated cases.

### Schistosoma mansoni:

The life cycle of S. mansoni is similar to that of S. haematobium except that the mature male and female worms pair and migrate to the small intestinal veins. Fertilized female worms produce ova which pass into the intestinal lumen and are excreted in the stool. If this ova lends in fresh water, it hatches and enters an aquatic snail where it develops into cercariae. When the cercariae is released in water it may penetrate skin and enter the blood stream

The clinical features include an initial self-limiting illness (Katayama fever) which may occur 1-2 weeks after infection, consisting of fever, urticaria, diarrhoea, cough and wheeze, with enlargement of liver and spleen. The Katayama fever is a reaction to the initial infection. Large numbers of ova in the in the intestinal veins cause diarrhoea with usually with drops of fresh blood at the end of defecation, associated with eosinophilia. Long standing of infection and large numbers of ova in the hepatic vein may cause liver cirrhosis; occasionally other organs may be infected.

Sometimes referred to as intestinal Schstosomiasis. This is when the trematode invade the intestine, symptoms of which include abdominal pain, diarrhoea accompanied with traces of blood in faces, fever, nausea, vomiting.

### Schistosoma japonicum

This type of Schstosomiasis is more widely distributed in veins of the alimentary tract and potal system. This type is not common in Tanzania, but can be treated by the same drug.

#### *Treatment Trematodes:*

#### *Praziquantel ( POM)*

Presentation:

Tablet 600mg

Indication:

Treatment of all human Schstosomiasis

Dose (Adult and Child):

**For all human Schstosomiasis** – 40mg/kg body weight in two divided doses given at an interval of 4 to 6 hours, **the same day.**

**For S. japonicum –** 60mg/kg body weight 8 hourly for **one day**

**Precautions:**

* do not use in ocular cystercicosis
* refer patients with neurocystercicosis always to hospital
* Some patents may feel drowsy after taking the drug, advice **them to rest**

**Side Effects:**

Gastrointestinal discomfort; headache; drowsiness; fever; rash and rectal bleeding.

**Vital Information to the patient:**

-Use full dose as adviced, otherwise treatment may fail

-Try to prevent reinfestation from water source

- Explain how to avoid reinfestation

-If there are serious side effects stop the drug seek medical advice at once.

**How to prevent Schstosomiasis infection:**

* Use latrines to avoid contamination of water with faeces and urine
* Do not empty untreated sewage into fresh water
* wear rubber boots when wading in stagnant water, e.g. when working in rice fields
* Avoid all contact with stagnat water where snails are present, e.g. washing clothes, bathing, swimming.
* Clear weeds and vegetation around irrigation channels to ensure free flow of water
* Treat infected individuals

### Amoebic Dysentery:

This is a protozoal intestinal infection caused by *Entamoeba histolytica* The source of the infection is faecal matter containing the encysted form of the parasite and transmission occurs by ingestion of contaminated food or water. Direct transmission during sexual activity may also occur.

#### *Symptoms:*

Symptoms of amoebiasis may be observed at any time from a few days to several years after infection, although they may occur most commonly during the first four months. Onset may be sudden and symptoms may vary in severity from mild diarrhoea to dysentery. The problem may spread to other organs such liver causing liver abscesses, lung or brain as a result of hematogenous spread. Complications of chronic infections include anaemia, emaciation, peritonitis, fibrous strictures (leading to obstruction) and irritable bowel syndrome. The infection may resolve spontaneously in some individuals while for others experience relapses over several years. Patients with diarrhoea are non-infectious, since they excrete only trophozoites which do not survive in the external environment

#### *Treatment:*

#### *Intestinal Amoebiasis:*

#### *Metronidazole (POM)*

**Presentation:**

Tablets 200mg or 250mg; Suspension 200mg/5mL

**Indications:**

Amoebiasis and Trichomaniasis

**Dosage (Adult and Child)**

***Amoebiasis:***

Adult:

Over 12 years : 750 – 800mg every 8 hours for 5 to 10 days or 10mg/kg body weight every 8 hours for the same period

Child:

0 – 1 year: 62.5 – 125 mg every 8 hours for 5 – 10 days

1 – 5 years: 125 – 250 mg every 8 hours for the same period

6 – 12 years: 200 – 400mg every 8 hours for the same period

#### *Precaution/Contra Indication:*

-Do not give to chronic alcohol dependence patients

- Avoid use in pregnancy during the first 3 months

- Do not use the drug during breast feeding

- Do not use the drug for more than 10 continuous days

#### *Side Effects:*

- Headache, diarrhoea, nausea, vomiting and stomatitis

- It may darken urine and sometimes gives a metallic taste in the mouth

- Intolerance for alcohol

#### *Vital Information to Patient:*

* Not to take any alcohol or alcoholic drink during all the period of treatment or immediately after the treatment
* Take the whole dose, or the treatment may fail.
* Should be taken with food

#### *Amoebic Liver Abscesses:*

#### *Metronidazole (POM)*

**Dosage (Adult and Child)**

Adult:

400 – 500mg every 8 hours for 10 days. Course may be repeated after 14 days if necessary

Child:

0 – 1 year: 62.5 – 125 mg every 8 hours for 10 days

1 – 3 years: 100 – 200 mg every 8 hours for 10 days

4 – 7 years: 100 – 200 mg every 6 hours for 10 days

8 – 12 years: 200 – 400 mg every 8 hours for 10 days

**Prevention of Amoebiasis:**

Amoebiasis may be prevented by improving sanitation and observing strict standards of hygiene in food handling. In endemic areas, dinking water should be boiled, and only peeled fruit and vegetables or cooked food consumed.

### Giardiasis:

Giardiasis is a protozoal intestinal infection caused by *Giardia lamblia* The source of the infection is human faeces containing the encysted form (the infective form) of the parasite. Transmission usually occurs by ingestion of food or water contaminated with faecal matter, although direct transmission from person to person may take place.

#### *Symptoms:*

The incubation period is from a few days to several weeks. Giardiasis may be acute or chronic and the severity of symptoms may vary, from asymptomatic to severe diarrhoea with malabsorption and weight lose. Abdominal pain, and distension, flatulence, nausea may be experienced. Stools are usually yellow, frothy and malodorous. Children are not healthy. May infected individuals are asymptomatic and pass cysts from the onset of infection.

#### *Treatment:*

#### *Metronidazole (POM)*

 **Dosage (Adult and Child) :**

Adult: 2g orally as a single dose for 3 days

Child: 200 – 400mg orally every 8 hours for 5 days or 10mg/kg body weight every 8 hours for 7 days

(All other information on the drug see above under Amoebiasis)

## Salmonellal Infections

Salmonellal infections are caused by bacteria of the genus Salmonella which are Gram-Negative. They are responsible for typhoid and paratyphoid fever or collectively enteric fever.

### Typhoid Fever

Typhoid fever is caused by Salmonella typhi, which is endemic in many parts of Tanzania, where poor standards of sewage disposal exist. S. typhi bacilli are excreted in faeces and, to a lesser extent, urine, and transmitted via contaminated drinking water and food. They can withstand freezing and drying and even remain viable for long periods on soiled clothing or bedding. The only reservoir of infection is man.

#### *Symptoms*

Incubation period is 5 to 23 days depending very much on the initial inoculum’s load of infection. Typhoid fever is marked by phases of about one week’s duration.

The initial phase starts with headache, fluctuating fever and abdominal pain. Constipation occurs more frequently than diarrhoea in the early stages, although later diarrhoea becomes frequent. Other symptoms may include anorexia, non-productive cough, epistaxis, furred tongue and muscular rash on the abdomen. In later stages the fever may become persistent, toxaemia may develop and there could be signs of mental deterioration and eventually comma. Final symptoms include greenish diarrhoea and malaena and even perforation of the intestine may result. The infection may resolve, however there can be relapses and in few cases complications may be fatal.

### Paratyphoid Fever

It is caused by Salmonella paratyphi A, B, or C. It is transmitted in a similar way to typhoid fever.

#### *Symptoms*

Paratyphoid fever resembles typhoid fever, but with a more abrupt onset, milder symptoms and shorter course. Complications, relapses and fatalities occur less frequently

#### *Treatment:*

Treatment should be done after correct laboratory confirmation carried out by a recognized laboratory. Currently very few laboratories are able to carry out reliable Typhoid /paratyphoid fever diagnostic test. True Typhoid fever test must take at list 48 hours before test results are given out. Current practice done by small laboratories testing typhoid is that the test takes about 30 minutes to 2 hours. This type of testing is not reliable and in many cases results into falls diagnosis, causing unnecessary taking of drugs by a number people who do not suffer from this disease. You should always be very careful when you get patients complaining of typhoid fever and you should advice them to go for reliable test in reliable clinics like that of Regional or district hospital or competent private hospital.

#### *Antibiotic Treatment*

#### *Amoxycillin (POM)*

**Presentation;**

250 or 500mg capsules; 125mg/5mL suspension

**Indications:**

Broad spectrum antibiotic, it is used for the treatment caused by sensitive micro-organisms such as streptococci, pneumococci, staphylococci, coli, shigella and salmonella. It includes acute respiratory infections, acute otitis media, gastro-intestinal infections and urinary tract infections.

**Dosage (Adult and Child)**

Adult: 1gm every 8 hours for 14 days

Child: 25mg/kg body weight every 8 hours for 14 days

For other Infections depending on the prescription, the usual dosage is:

Adult: 250 – 500mg every 8 hours for 5 – 10 days

Child: 10 – 15 mg/Kg body weight every 8 hours for 5 – 10 days.

**Precautions/Contra Indications**

-Do not use in patients with known penicillin allergy as it may cause shock. Always ask your patients if they are allergic to penicillins

**Side Effects:**

-Allergic reactions

- Joint pains and diarrhoea

**Vital information to Patient**:

* Complete the given dose or treatment may fail
* Suspensions should be shaken before pouring out each dose
* Self life of the suspension is limited to 10-14 days only after opening and reconstituting
* Oral Amoxyllin reduces the activity of oral contraceptives thus increasing pregnancy risk

#### *Alternatives:*

#### *Co-Trimoxazole (POM)*

Adult: 960 mg every 12 hours for 14 days

Child above 6 weeks: 120mg /Kg body weight every 8 hours for 14 days

(all other information about this drug see above)

### Irritable Bowel Syndrome:

The irritable bowel syndrome (IBS) is a chronic motility disorder of the colon with no demonstrable cause.

#### *Symptoms:*

It is characterized by recurrent episodes (attacks) of abdominal discomfort, pain, and altered bowel habit. The pain may be colicky or continuous dull ache is commonly related to food intake. It may be relieved by defaection or on the passage of flatus. There may be a alternating diarrhoea and constipation; the faeces may be described as “marbles”, “pellets” or rabbit dropping (scybala) and mucus may be present or other lesions are also present. Other symptoms include abdominal distension and flatulence (presence of access gas in the stomach).

#### *Treatment:*

Reassure the patient by explaining the nature of the problem. Treatment may consist of advising the patient to take foods with high fibre content like vegetable or brain. Drug therapy should be avoided in most cases, but bulk forming drugs like Methylcellulose. If this fails stimulant laxatives like Bisacodyl may be used.

### Peptic Ulceration:

Peptic ulcers develop through loss of tissue of the mucosa, submucosa, and mascularis mucosa exposed to gastric secretions. Formally it was believed that the cause of peptic ulceration was wholly due to acid and pepsin. However resent researches shows that bacterial infection may also be the cause. Some drugs like Aspirin and other anti-inflammatory agents are also linked occurrence of peptic ulceration. Ulceration may occur in the in the lower oesophagus, the stomach – gastric ulcers and the duodenum – duodenal ulcers.

### (i) Gastric Ulceration:

#### *Symptoms:*

Ulcerations are characterized by localized epigastric pain, which may become worse after eating; unlike duodenal ulcers the pain is worse during the day.. Other symptoms include lack of food appetite (anorexia), nausea, vomiting and excess salivation and weight loss. Complications include acute haemorrhage or perforation.

### (ii) Duodenal ulceration:

Duodenal ulceration is characterized by epigastric pain, which is localized. The pain may be described as gnawing, burning, boring, aching, or as sensation of pressure and heaviness or hunger and may be mild or severe. The pain may be relieved by food but reoccurs 2 or 3 hours after eating, and it is worse at night.

#### *Treatment:*

Proper diagnosis should be done before treatment is done. Treatment includes rest, avoidance of gastro-intestinal or mucosal irritants like smoking, alcohol, irritating drugs like aspirin and other non-steroid anti-inflammatory agents, regular meals and symptomatic treatment with antacids and ulcer healing drugs.

### Colic:

Colic consists of spasm of severe griping pain, which increase in intensity to a peak, gives up for a short period and then reoccurs. This colic may be in the stomach, intestines, kidneys, ureters or biliary tract. Intestinal colic may be due to minor causes, emotional upset and over- or under- feeding but may also be due to serious problems like food poisoning and intestinal obstruction.

#### *Symptoms:*

Infants in the first months of life are commonly affected by intestinal colic. It is characterized by crying for no obvious cause associated with pulling up of the knees and irritability although the child is health. Attacks are commonly in the evening, but unlike crying due to loneliness or soiled napkin, picking the child or changing of wet napkins, does not relieve the child if the crying is due to colic.

#### *Treatment:*

For infants there is no need for dug treatment however lying the child on his/her abdomen or changing feeding equipment or technique may relieve the problem. Persistent colic may be treated with anticholinergic antispasmodics however this should recommended by a qualified physician.

## SKIN DISEASE CONDITIONS

### Paranychia

They are painful red swellings of the nail folds which may be due to bacteria or yeast.

#### *Acute Paranychia*

Is characterized by tenderness and presence of pus indicates the need for systemic antibiotics

Drug of choice Phenoxymethylpenicillin (O) for 5-7 days

Second choice Cloxacillin (O) for 5-7 days

 Dosages as for impetigo

#### *Chromic Paranychia*

In most cases is due fungal, like Candida. Individuals shouls avoid excessive contact with water, protect themselves from trauma and apply.

Miconazole or Clotrimazole cream, apply twice daily

Treat secondary infection with antibiotics as above

**NOTE:**

**For both acute and chronic Paranychia, inciaion and drainage may be needed**

**Wound care:**

- Potassium permanganate soaks(1:4000)

- Avoid gentian violent 0.5% as repeated use in this condition may cause keloid

 secondary infection (bacterial) may require treatment.

**Post herpetic neuralgia**

After the rash is fully resolved:

- Amitriptyline (O) 75mg at night, may be increased to 150mg at night

OR

- Carbamazepine (O) 200 mg at night may be gradually increased to a maximum

 of 400 mg three times a day over 10 days

- Acyclovir (O) 800mg 5 times a day until no new lesions appear

NOTE:

Refer if there is no improvement in sever neuralgia. Refer immediately if there is ophthalmic/pulmonary involvement. Due to acyclovir prohibitive cost restrict this drug to specialist prescription for cases of disseminated zoster or complications only if within 5 days of presentations.

# EAR, NOSE AND THROAT DISEASE CONDITIONS

#### *“Ear child”*

It describes a child suffering from acute otitis three or more times within a six month period.

#### *Therapy failure:*

Treatment may fail due to insufficient or absent therapeutic effect or worsening of acute otitis during therapy with antibiotics.Acute otitis media usually follows a viral infection

Bacterial infection may be caused by:

* Pneumococci
* Haemophilus influenzae
* Groups A streptococci

### Chemotherapy:

Most drugs are chemicals. The term chemotherapy therefore describes the use of chemical products (drugs) for the treatment of microbial infections.

**Malaria**

### Important Facts on Uncomplicated Malaria Management

|  |
| --- |
| * As far as possible malaria cases should be reviewed on the fourth day if symptoms persist or immediately if the condition worsens. Health workers should know where they can refer cases that fail to respond to the recommended drug regimen for further investigation, appropriate treatment and management
 |

1. Take and record the axillary’s temperature at every visit

2. Give clear instructions to the mothers on how to administer tablets for children below 18 months. Syrup formulations tend to be unstable so are not recommended for inclusion in the antimalaria regimen.

3. Non-response to anti-malarias may be due to a number of reasons including:

* The patient may have fever /symptoms from a cause other than malaria
* Inadequate treatment
* The patient may have vomited the drug
* The quality of the drug may have been poor
* The parasite may be resistant to the drug

4. Facts on SP treatment:

|  |
| --- |
| * SP is an extremely safe drug: follow the suggested treatment schedule to avoid sub-optimal dosage of SP
* SP is rapidly absorbed from the gut following oral administration
* SP treatment should be administered as a single dose
* There is no pharmacological, parasitological or clinical evidence that a second SP dose is beneficial for the patient
* Give the SP dose immediately after diagnosis in the dispensary
* Monitor the patient closely for half an hour for spitting out or vomiting
* If the patient spits out or vomits the SP within 30 minutes of administration give another dose
* SP clears parasitemia but has no anti-pyretic effect so, if fever is present give and antipyretic drug (e.g Paracetamol, Aspirin) until symptoms resolve
* Adverse effects of SP are usually not related to the dosage and include skin reactions in the form of Steven Johnson syndrome (erythema multiform or toxic epidermal necrolysis) which is quite rare but can be fatal.
* Always ask about possible allergies. If there is a history of skin reactions to sulfa drugs do not give SP use Amodiaquine
* Sulfa containing drugs carry a theoretical risk of causing kernicterus in the neonate when administered to the mother just before delivery.
 |

### Chronic Gastritis:

The cause of chronic gastritis are not clear, but are said to be due to auto-immune diseases (e.g thyroid disease, and diabetes mellitus and prolonged gastric irritation. It is commonly associated with peptic ulceration, cancer of the stomach and gastric surgery.

#### *Symptoms:*

Uncomplicated forms are usually asymptomatic although anorexia, epigastric pain, nausea and vomiting may occur.

#### *Treatment:*

Gastritis is managed mainly by removal of the causative agent ( in case of acute gastritis e.g avoidance of alcohol and non-steroidal anti-inflammatory drugs. In case of chronic gastritis the resulting anaemia can be treated with replacement therapy. If it is due to bacterial infection, appropriate antibacterial or antibiotic may be used.

### Constipation:

Constipation is an increased difficulty and reduced frequency of bowel evacuation, and may be acute or chronic. Normal frequency of defaecation varies from three times per day to once every three days. Simple chronic constipation can be due to dietary fibre or poor bowel training. Acute constipation implies a sudden change in bowel habit. There are several other causes of constipation. Constipation may be a side effect of drug administration and laxative abuse. This means before you advice your patient to use any unnatural laxatives, you should enquire the history of the problem, duration and advice the patient to use natural fibre or bulk forming foods solve the problem.

#### *Treatment:*

Most cases of constipation can be successfully be treated by diatary measures alone. Long term constipation should be treated by intake of bulk forming products such brain or foods with a lot of roughages and the intake of plenty of water. If this measure does not provide relief, artificial means using bulk-forming drugs like Methylcellulose, stimulant laxatives like Bisacodyl, Senna, osmotic laxatives like magnesium salts.

### Dyspepsia:

Dyspepsia (indigestion) is a collection of symptoms which may occur shortly after eating or drinking. Acute dyspepsia may be due to overeating or habit of high intake of alcohol. Chronic dyspepsia may occur in peptic ulceration, hernia, reflux oesophagitis, chronic gastritis. Dyspepsia is aggravated by heavy smoking, stress and anxiety.

#### *Symptoms:*

Major complaints are epigastric discomfort, chest pain, or both. It may be accompanied by a feeling of fullness after eating, heartburn, abdominal distension, flatulence, anoxia, and nausea and vomiting.

#### *Treatment:*

Proper history of the problem and proper diagnosis may be necessary for rational treatment. Dyspepsia may be treated with antacids like Magnesium trisilicate, Aluminium hydroxide, Sodium bicarbonate, Magnesium carbonate and Calcium and Bismuth containing antacids. However these products should be used for long time at high doses, because they may cause other problems. For chronic problems the advice a medical practioner will be necessary.

Antispasmodics like Hyoscine butylbromide and other drugs altering gut motility may be used for non-ulcer dyspepsia.

All patients should be adviced to stop smoking, moderate their alcohol intake and to eat regularly avoiding foods that aggravate the problem.

#### *Hyoscine Butylbromide (OTC)*

**Presentation:**

Tablet 10mg, 20mg/mL Ampoule

**Indication:**

Abdominal spasms, including dyspepsia

**Dosage (adult and Child)**

Adult: 20 mg every 6 or 8 hours

Child: 6-12 years 10mg every 8 hours

**Precautions/Contra Indication:**

-Do not use in prostate hypertrophy, glaucoma, ileus, muscular weakness and obstipation

- Do not use when breast-feeding

- Use with caution during pregnancy

**Side Effects:**

* Dry mouth, nose and throat, sore or metallic taste
* Blurred vision, disturbance of accommodation
* Urinary retention and constipation
* Increased heart rate
* Allergic reaction

**Vital Information to Patient:**

* Take the drug half or one hour before meal/food
* Do not use the drug for a long time. If the problem is not improved Visit a clinic for further diagnosis
* Drink enough water while taking this drug

## Deep fungal infection

**Clinical features:**

The common clinical entities of deep fungal infections are nocardiosis and actinomycosis. Actinomycosis is caused by actinomyces. Its clinical features depend on the infected site. There are indurations in the skin, sinus formation pain and when lungs are involved there is cough with purulent sputum.

Nocardiosis is an acute or subacute or chronic infection by nocardia species whose clinical features are mainly in the lungs and may include pneumonia, fever and a productive cough.

#### *Treatment guidelines*

Tetracycline 500mg every 6 hours for 2-4 months for actinomycosis

**CAUTION:**

**Tetracycline should not be given to pregnant women and children under 12 years of age.**

#### *Alternative drugs*

Adults

Phenoxymethylpenicillin (O) 500mg every 6 hours 2-4 months

Co-trimoxazolee 480mg every 12 hours for 2-4 months for nocardiosis

Children

Phenoxymethylpenicillin (O) 25mg/kg body weight 6 hourly for 2-4 months

Cotrimoxazole (O) syrup 0.5 ml/kg body weight every 12 hours for 2-4 months

NOTE:

Regular blood examination must be done when co-trimoxazole is used for more than 14 days

**COMMUNICATION SKILLS, HEALTH EDUCATION AND PROMOTION**

***Handout No. 2***

**TENTATIVE SCHEDULE FOR THE COMMUNICATION SKILLS TRAINING OF ADDO DISPENSERS**

|  |  |  |
| --- | --- | --- |
| **DAY**  | **SESSION**  | **FACILITATOR**  |
| **DAY 1:**  |   |   |
|  08.30 am – 09.30 am  |  Orientation to Unit 1. • Introductions (if appropriate)
2. • Self-Assessment Session (30 minutes)
3. • Jobs and Task reviewed and clarified
 |   |
|  09.30 am – 10.30 am  |  Establishing / Strengthen Interpersonal Relationships for Quality ADDO service.  |    |
| **10.30 am – 11.00 am**  | **B R E A K**  |   |
|  11.00 am – 12.00 pm  |  1. • Upholding and fulfilling Consumers’ Right
2. • Making referrals
 |   |
|  12.00 pm – 01.00 pm  |  As above  |   |
| **01.00 pm – 02.00 pm**  | **LUNCH BREAK**  |   |
|  0.2.00 pm – 03.30 pm  |  Planning, Conducting one to one Health Education on common illness encountered in ADDOs. (Planning in 2 – 4 groups)  |   |
| **03.30 pm – 03.45 pm**  | **B R E A K**  |   |
|  03.45 pm – 04.45 pm  |  Planning, Conducting one to one Health Education on common illness encountered in ADDOs. (Planning in 2 – 4 groups)  |   |
|  04.45 pm – 05.00 pm  |  REFLECTIONS Assignment: Prepare for Practical / Simulated Health Education Sessions  |   |

|  |  |  |
| --- | --- | --- |
|  **DAY**  | **SESSION**  | **FACILITATOR**  |
| **DAY 2:**  |   |   |
|  08.30 am – 08.45 am  |  Where are we?  |   |
|  08.45 am – 10.30 am  |  Conducting Health Education Sessions (Simultaneously in 2 groups)  |   |
| **10.30 am – 11.00 am**  | B R E A K  |  |
|  11.00 am – 12.00 pm  |  Conducting Health Education Sessions (Simultaneously in 2 groups)  |   |
|  12.00 pm – 01.00 pm  |  Using GATHER in counseling for solicited or (Facilitator presentation, role play and beginning small groups work)  |   |
| **01.00 pm – 02.00 pm**  | **LUNCH BREAK**  |  |
|  02.00 pm – 03.30 pm  |  Preparation for using GATHER in small group work  |   |
| **03.30 pm – 03.45 pm**  | B R E A K  |  |
|  03.45 pm – 04.45 pm  |  Preparation for using GATHER in small group work  |   |
|  04.45 pm – 05.15 pm  |  Guide on Skills Application Plan on Communication Assignments on writing individual Skills Application Plan (3 – 4 activities only) 1. • Quick Process Review (e.g. Just now I feel …….)
2. • Closure
 |   |

 ***Handout No.46***

**SESSION 6: APPLYING ACQUIRED KNOWLEDGE AND SKILLS IN OWN WORK SITE**

**SKILLS APPLICATION PLAN**

**Name of ADDO \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ District \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Region \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Name of Dispenser \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Dates (One year) \_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_\_**

**Type/Name of Training \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date of Training \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Serial No.**  | **Activity/Skills I need to apply**  | **Help I need to do it well (Resources)**  | **With Whom will I do it**  | **Must complete doing it by What Date**  | **Remarks (to be written during review of this Plan)**  |
|   1.  |  |  |  |  |  |
|   2.  |  |  |  |  |  |
|   3.  |  |  |  |  |  |
|   4.  |  |  |  |  |  |

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| --- | --- | --- |
| **DAY**  | **SESSION**  | **FACILITATOR**  |
| **DAY 3:**  |   |   |
|  08.30 am – 08.45 am  |  Where are we?  |   |
|  08.45 am – 10.30 am  |  Using GATHER for unsolicited services / difficult moments and making referrals  |   |
| **10.30 am – 11.00 am**  | **B R E A K**  |  |
|  11.00 am – 12.00 pm  |  Using GATHER for unsolicited services / difficult moments and making referrals  |   |
|  12.00 pm – 01.00 pm  |  As Above  |   |
| **01.00 pm – 02.00 pm**  | **LUNCH BREAK**  |   |
|  02.00 pm – 03.30 pm  |  Using records for communication (message development) 1. • Informal Records
2. • Formal/As per official Standards (ADDO and MOH)
3. • Using the records as Dispenser or in collaboration with owner
 |   |
| **03.30 pm – 03.45 pm**  | B R E A K  |  |
|  03.45 pm – 04.15 pm  |  As above  |   |
|  04.15 pm – 05.30 pm  |  1. • **CLOSURE**
2.
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