

# LYMPHATIC FILARIASIS ELIMINATION PROGRAMME

## TRAINING MODULE FOR DRUG DISTRIBUTORS

in countries  
where lymphatic filariasis  
is co-endemic  
with onchocerciasis



World Health Organization



Part 1. Learner's Guide



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WHO/CDS/CPE/CEE/2001.23 Rev 1, Part 1

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### Part 1. Learner's Guide

Lymphatic Filariasis Elimination Programme  
Department of Control, Prevention and Eradication (CPE)  
Communicable Diseases (CDS)



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# PREFACE

This training module is intended for drug distributors involved in lymphatic filariasis elimination programmes in countries where onchocerciasis is co-endemic. It is the first of a series produced by the World Health Organization to assist national programmes with the different aspects of lymphatic filariasis elimination and is made up of two separate parts: Part 1 (this part), the Learner's Guide, which comprises eight learning units containing detailed information on the most effective way to carry out drug distribution within a national lymphatic filariasis elimination campaign; Part 2, the Tutor's Guide, which addresses those responsible for conducting training programmes, outlines the main points to be learned and provides guidance and suggestions on the learning process.

The duration of training using the module should be approximately 8 hours, including 40 minutes each for the pre-and post-test (see proposed timetable under "Introduction" in Part 2, Tutor's Guide).

## ACKNOWLEDGEMENTS

This module has been developed by Dr Francesco A. Rio, Lymphatic Filariasis Elimination Programme, Department of Control, Prevention and Elimination, Communicable Diseases, World Health Organization, following a series of meetings at national and regional level. It has been produced with the financial support of the Ministry of Health and Welfare, Government of Japan. Acknowledgement is made to Dr Gautam Biswas, Medical Officer, and Dr Eric Ottesen, former Project Leader, for their assistance in reviewing and editing the module.

## Objectives of the Learner's Guide

At the end of the training programme, based on the Learner's Guide, the learners should be able to:

- ▶ define the purpose of the national elimination programme
- ▶ list the principal features of the disease
- ▶ handle and administer the drugs used in the elimination campaign
- ▶ describe the exclusion criteria for drug administration
- ▶ assess and classify possible side-effects of the drugs
- ▶ maintain accurate records of distribution activities
- ▶ effectively address people
- ▶ provide messages for the non-compliant

## How this subject will be taught

### Tutor and facilitators

The tutor should have wide experience of training, be familiar with the structure of the national health system and thus be able to help learners to solve a wide range of problems.

Facilitators assist the tutor to achieve the objectives outlined above. They lead the discussions and help learners generally, especially when working in small groups.

### Presentations

Presentations in the form of lectures are usually kept to a minimum and each lecture will be kept as short as possible. The information given in the lectures is already provided in the Guide so there will be little need for learners to take notes. A lecture presentation will usually be combined with a practical demonstration.

*Control of lymphatic filariasis, leading to its elimination, is based on two major pillars: a) control of transmission of infection; and b) control of the long-term consequences of the disease. Drug distribution is one of the major components of point a).*

*The purpose of this module is to provide background information for those involved in drug distribution and, in particular, health workers responsible for drug distribution at community level in countries where onchocerciasis is co-endemic.*

## INTRODUCTION

### **Demonstrations**

Demonstrations will be used to illustrate and reinforce activities that the learner will carry out later. A great deal of interaction between the tutor, facilitators and learners is expected.

### **Role-play**

In a role-play exercise each learner is asked to pretend to be a person in a situation that might arise during his or her job. For example, the learners may be asked to play the part of a non-compliant villager (e.g. in the case of Learning Units 5 and 6: “How to address people and what to tell them” and “Messages for the non-compliant”). Another learner might play the part of the drug distributor and then a member of the group can discuss what was said and done. Much can be learned from this kind of exercise.

### **Small group discussion**

In this exercise a facilitator leads a discussion on a particular subject. Such discussions provide good opportunities for the learners to give their opinions, develop ideas and learn from one another.

## **Use of the Learner's Guide**

The Learner's Guide provides instruction on drug distribution issues and is designed to enable the learners to achieve the objectives stated above. It is divided into eight chapters called Learning Units, each consisting of a number of objectives. Learners will achieve the main objectives of the course by consistently following the tutor's instructions and through close interaction with the latter. The learners must have assimilated the knowledge of one unit before proceeding to the next. If they require clarification about any point in a unit they should ask their tutor or fellow learners.

## Presentation

Learners are expected to have read the section of the Learning Unit to be covered before the start of the session and formal presentation of information will be limited to introductory remarks by the tutor at the beginning of each session. All the information that the learners will need is contained in the Guide so they will not need to take notes.

## Evaluation

### Evaluation of the learner

The evaluation of individual progress will be carried out by the tutor and by the learner. It will include:

- ▶ **spot tests** – at regular intervals a series of questions aimed at testing the learner's knowledge will be asked by the tutor. The questions are designed to help the learner and tutor to assess the competence gained. Correct answers will be provided after the spot tests and discussion will take place to ensure that activities requiring further practice are highlighted.
- ▶ **multiple-choice quizzes** – each question is provided with a list of possible answers from which the learners must select the correct one(s). At the end of these quizzes it will not be necessary to give the answers to each question, but the tutor will analyse the results to identify topics that were not clearly understood.

### Evaluation of the training by the learner

By means of a questionnaire distributed at the end of the training course, the tutor will ask the learners for their opinion of the training activity. It is important to receive this type of feedback for improvement of future training activities. The learners are able to complete the evaluation questionnaire anonymously if they wish; however, each one should complete it and should feel free to make suggestions for improvements, whether these concern the tutor, the course content, the training facilities or all three.

## NOTES





## Lymphatic Filariasis Elimination Programme: Goal and strategy

### Learning objectives

By the end of this Unit you should be able to:

- ▶ describe the goal of the Programme to Eliminate Lymphatic Filariasis
- ▶ describe the strategy of the Programme to Eliminate Lymphatic Filariasis

### The goal

The goal of the Programme to Eliminate Lymphatic Filariasis (PELF) is to eliminate lymphatic filariasis as a public health problem by reducing the level of the disease in populations to a point at which transmission no longer occurs.

The disease is a major contributor to poverty and disability. The cost of managing acute and chronic manifestations causes an enormous loss of financial resources, resulting in a major obstacle to economic development. Studies are currently under way to quantify the costs borne by endemic countries.

Lymphatic filariasis is so disfiguring, and the accompanying infections so distasteful, that people are ashamed to go out in public and consequently isolate themselves from society. People affected by the disease find it difficult to get a job and are often sacked because of their disfigurement or disability. Often, they do not marry and there is a high rate of separation in couples where one of the partners has the disease.

*The drugs given during the elimination programme will spare the next generation from elephantiasis, hydrocele and other manifestations of lymphatic filariasis by breaking the cycle of infection between mosquitoes and humans.*

*The principal approach  
for interruption of  
transmission is a single-dose  
treatment of two drugs given  
together, once a year  
for 4–6 years.*

The drugs given during the elimination programme will spare the next generation from elephantiasis, hydrocele and other manifestations of lymphatic filariasis by breaking the cycle of infection between mosquitoes and humans. As an added benefit of the treatment, the burden of intestinal parasites will also be significantly reduced in areas where these exist alongside lymphatic filariasis. Thus, children will grow up healthier, learn more effectively and play a more active role in the development of their communities and countries.

## **The strategy**

The strategy of the Programme to Eliminate Lymphatic Filariasis is based on:

- 1) interruption of disease transmission; and
- 2) treatment of the problems associated with lymphoedema (disability prevention and control).

### **1 - Interruption of transmission**

The principal approach for interrupting transmission of infection is to treat the entire at-risk population with a single administration of two drugs given together, once yearly for 4–6 years. The goal of such treatment is to protect the *next generation* from elephantiasis and other manifestations of filarial disease by breaking the cycle of infection between mosquitoes and humans. Areas in which lymphatic filariasis is endemic must be identified and then community-wide programmes implemented.

The purpose of treating the affected community is to eliminate microfilariae from the blood of infected individuals so that transmission of the infection by the mosquito can be interrupted. In countries where onchocerciasis is co-endemic the programme will be based on the once-yearly administration of two single-dose drugs given together: ivermectin plus albendazole. This yearly, single-dose treatment must be carried out for 4–6 years.

## 2 - Disability prevention and control

New, effective and simple techniques have been developed to alleviate the suffering caused by acute and chronic manifestations of the disease such as acute inflammatory attacks, lymphoedema, hydrocele and elephantiasis of the limbs or genitals; secondary infections associated with damaged lymphatics can now be effectively treated and prevented. These techniques are particularly effective in preventing painful, debilitating and damaging episodes of lymphangitis and can even reverse much of the damage already sustained. They consist of regular washing with soap and water, regular exercising of the limbs, and other simple activities easily carried out in the home.

It is necessary to raise awareness in LF sufferers and to implement as many community education programmes as possible to promote the benefits of these simple, effective, local hygiene measures.

**You should read carefully the next section of this guide before starting the session to which it relates.**

## NOTES



## LEARNING UNIT 2

### The disease

#### Learning objectives

By the end of this Unit you should be able to:

- ▶ describe the cause of lymphatic filariasis
- ▶ describe how the disease is transmitted
- ▶ describe some important characteristics of the disease

Elephantiasis has been known and written about since the dawn of civilization. It was depicted on the pharaonic murals of Egypt and in the ancient medical texts of China, India, Japan, and Persia. Elephantiasis and hydrocele were first associated with parasitic filarial worms and their mosquito vectors in the late 19th century by Australian, English and French physicians working with patients from Brazil, China, Cuba and India.

Lymphatic filariasis is caused by thread-like parasitic worms, called filariae. These filarial parasites, in their adult stage, live in the vessels of the lymphatic system, the network of nodes and vessels that maintains the fluid balance between the tissues and the blood, and that is an essential component for the body's immune defence system. The worms live for 4–6 years, producing millions of very small larvae – immature microfilariae that circulate in the peripheral blood with a marked nocturnal or diurnal periodicity.

#### The life cycle

The disease is transmitted by mosquitoes that bite infected humans and pick up the microfilariae from their blood. The microfilariae ingested by the mosquito pass to the stomach, then penetrate the gut wall, enter the body cavity and then the thoracic muscle. After a period of approximately two weeks the parasites migrate to the head of the mosquito and position themselves in the mouth parts, ready to enter the punctured skin of the next individual when the mosquito bites, thus completing the cycle.

The disease

#### Learner's Guide



***Lymphatic filariasis is caused by thread-like parasitic worms, called filariae.***

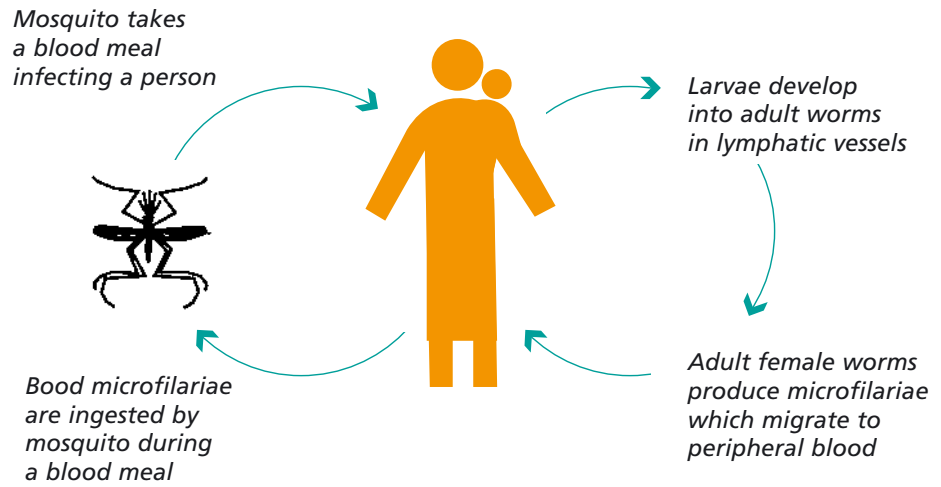


Microfilaria in the blood



Macrofilaria, the adult stage

**Learner's Guide**



Acute inflammatory attack



Signs of a recent acute attack:  
peeling of the skin

(photographs provided by courtesy of Dr G. Dreyer,  
Federal University of Pernambuco, Recife, Brazil)

**Local symptoms of acute attack are swelling, warmth, redness, and extreme pain of the affected area; general symptoms are fever, chills, headache and weakness.**

## Clinical features

There are acute and chronic manifestations of lymphatic filariasis.

### Acute manifestations

Acute inflammatory attacks are the most important type of acute manifestations of the disease. They are characterized by local symptoms such as swelling, warmth, redness, and extreme pain of the affected area, and general symptoms such as fever, chills, headache and weakness. Such symptoms occur in the limbs or in the scrotum, and are related to bacterial or fungal superinfection.

Inflammation during the acute attack damages the tiny lymph vessels in the skin and reduces their ability to drain fluid from the skin. Inflammation also damages the skin. As the damage is repaired, the skin becomes hard in a process known as fibrosis. With each acute attack, the skin grows harder. A vicious cycle begins as the chronic swelling predisposes the skin to bacterial infection.

### Chronic manifestations

Lymphoedema and urogenital manifestation are chronic manifestations of the disease. Lymphoedema is due to lymphatic dysfunction caused by the presence of the adult worm. It occurs more frequently in the lower extremities, but can also affect the breast, scrotum, penis, arms and, less frequently, the vulva.

The chronic manifestations of lymphatic filariasis comprise haematuria (presence of blood in the urine), hydrocele (collection of fluid inside the scrotal sac), chylocele (presence of lymph in the cavity of the tunica vaginalis), chyluria (presence of lymphatic fluid in the urine, which gives the urine a characteristic milky aspect), and lymphoedema of the scrotum or the penis.

### The global burden

It is estimated that 120 million people in more than 80 countries throughout the tropics and subtropics are infected by the disease. One-third of those infected live in India, one-third in Africa and the remainder in South-East Asia, the Pacific and the Americas.

In tropical and subtropical areas where lymphatic filariasis is well established, the prevalence of infection continues to increase. A primary cause of this increase is the rapid and unplanned growth of cities, which creates numerous breeding sites for the mosquitoes that transmit the disease. Lymphatic filariasis is a major cause of disability, social stigma and reduced psychosocial and economic opportunities, and is a major burden on health and hospital resources, particularly as a result of the costs of surgical intervention.



Haematuria and chyluria

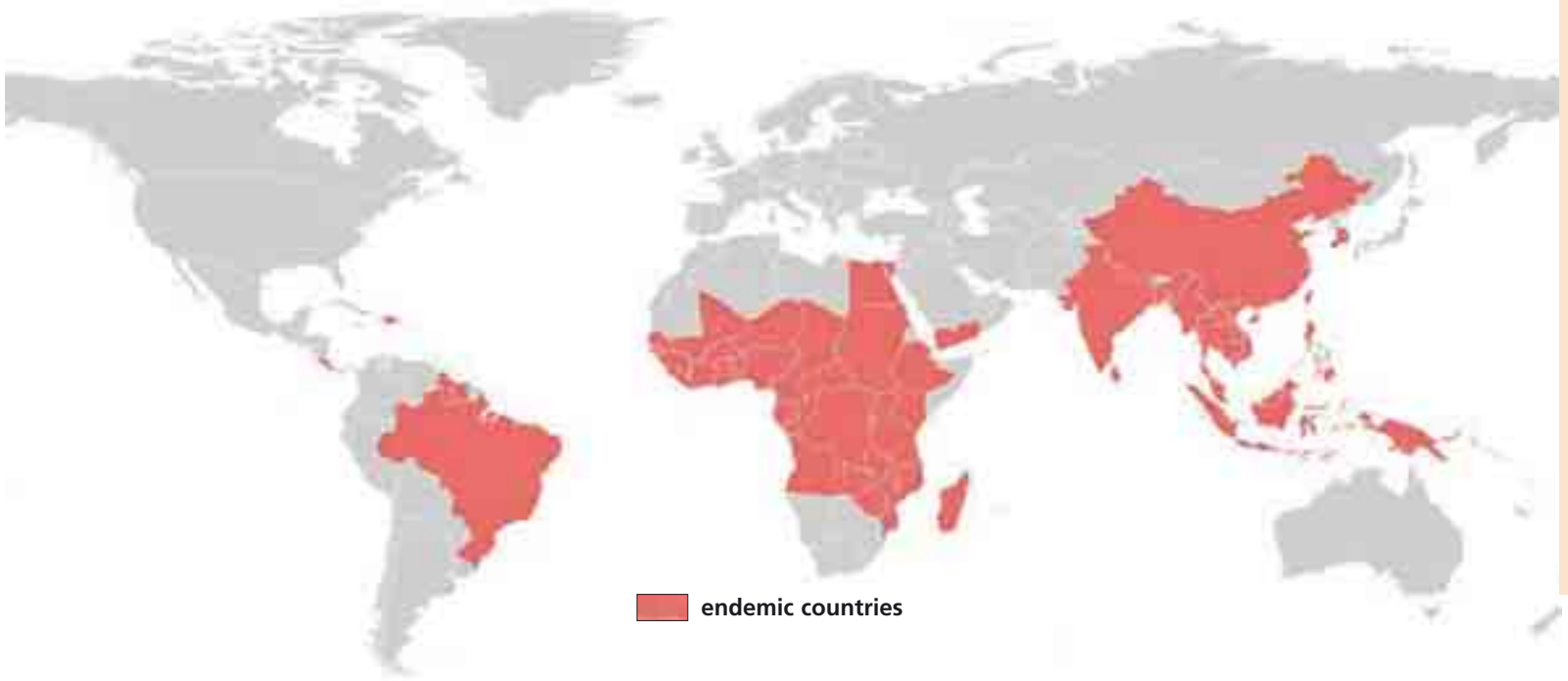


Elephantiasis of the leg

***120 million people  
in more than  
80 countries  
are infected  
by the disease***

**You should read carefully  
the next section of this guide  
before starting the session  
to which it relates.**

## Distribution of lymphatic filariasis





## The drugs

### Learning objectives

**By the end of this Unit you should be able to:**

- ▶ **understand the principle underlying the elimination strategy**
- ▶ **name the drugs used in the elimination programme in your country**
- ▶ **specify the dosage of both drugs**
- ▶ **describe how to administer both drugs**
- ▶ **describe how to handle both drugs**
- ▶ **identify who should be excluded from drug distribution**

### The strategy

To interrupt the transmission of lymphatic filariasis (LF) in countries where onchocerciasis is co-endemic, community-wide (“mass treatment”) programmes will be implemented in LF-endemic areas. The aim of this approach is to eliminate microfilariae from the blood of infected individuals so that transmission of infection by mosquitoes can be interrupted.

The elimination programme will be based on once-yearly administration of two single-dose drugs given together: ivermectin plus albendazole. This yearly, single-dose treatment will be carried out for 4–6 years, until the adult worms in the body have come to the end of their normal lifespan.

The duration of the programme will depend on the coverage achieved. Low coverage will result in persistent residual transmission, and annual treatment may therefore need to continue for a longer period to ensure complete interruption of transmission. Consequently, if the microfilarial prevalence in the population is to be lowered to levels where transmission of LF is no longer possible, it is vital to achieve a high level of coverage.

**Learner's Guide**

*The ingestion  
of the drugs should  
always be supervised  
by the person  
administering them.*



## The drugs used

Community-wide treatment, once-yearly, with a single-dose, 2-drug regimen in tablet form:

- ivermectin 150  $\mu\text{g}/\text{kg}$ , plus
- albendazole, 400 mg – same dose for all ages

**Both drugs are administered at the same time under supervision**

### Ivermectin

**Colour:** off-white

**Shape:** round, embossed with “MSD” on one side and “32” on the other

**Presentation:** containers of 500 tablets

**Dosage:** 150  $\mu\text{g}/\text{kg}$ . The dosage is determined by *the patient's height*, as follows:

Height (cm)	Dose (number of tablets)
less than 90	no tablets
90 to 119	○
120 to 140	○ ○
141 to 158	○ ○ ○
more than 158	○ ○ ○ ○

In some communities, measuring height with a stick is associated with death. To overcome this popular belief, marking a wall may be an acceptable alternative.

**Administration:** tablets should be swallowed with water. They have a bitter taste. **Their ingestion should be always be supervised by the person administering them.**

**How to handle it:** keep the container tightly closed, in a dry place, protected from light. Store below 30 °C. The shelf life of ivermectin is 24 months but only 13 months after the bottle is opened.

## Albendazole

**Colour:** off-white

**Shape:** oval embossed with “ALB 400” on one side

**Presentation:** containers of 100 tablets

**Dosage:** 400 mg (one tablet)

**Administration:** tablets are chewable and have a pleasant taste (passion fruit).

**Their ingestion should always be supervised by the person administering them.**

**Handling:** keep the container tightly closed, in a dry place and protected from light. Store below 30 °C. The shelf-life of albendazole is 5 years.

### Why use two drugs?

The two-drug regimen is more effective than the single-drug regimen for long-term reduction (more than one year) of microfilarial density and prevalence.

### Exclusion criteria

Endemic populations eligible for community-wide treatment with ivermectin and albendazole co-administration should include everyone with the exception of :

- sick individuals;
- children under 15 kg in weight or less than 90 cm height (corresponds to 5 years of age);
- pregnant women and lactating women within 1 week of birth.

Please note that, since there is no direct or anecdotal evidence of complications resulting from treatment with single doses of either of these drugs in pregnant women, exclusion related to pregnancy is a precaution.



*The two-drug regimen is more effective than the single-drug regimen.*

You should read carefully the next section of this guide before starting the session to which it relates.





## Adverse experiences

### Learning objectives

By the end of this Unit you should be able to:

- ▶ list possible adverse experiences, both systemic and localized
- ▶ understand the principle underlying the management of adverse reactions

Ivermectin and albendazole, the drugs recommended for use by national elimination programmes in countries where onchocerciasis is co-endemic, are extremely safe when administered individually as a single dose. Practical field experience with each has extended to tens of millions (ivermectin) or hundreds of millions (albendazole) of people treated during the past 20 years. At the recommended once-yearly dosages (ivermectin: 150  $\mu\text{g}/\text{kg}$ ; albendazole: 400 mg) essentially no toxic reactions to the drugs have been noted, and recent studies have confirmed that co-administration of these drugs does not enhance their toxicity.

### Adverse experiences

Both ivermectin and albendazole are safe and well tolerated. Adverse experiences do sometimes occur following treatment, especially with ivermectin, primarily as a result of the individual's immune inflammatory response to dying parasites; the greater the microfilarial load in the patient, the greater are the frequency and severity of such experiences. Adverse experiences are usually self-limiting and go away without any action, although symptomatic treatment with analgesics or antipyretics is helpful.

Only rarely, in heavily infected individuals, or in people with a history of adenolymphangitis, are these post-treatment adverse experiences severe or do they require more than just symptomatic treatment. Local adverse experiences are less common and tend to occur later (1–2 weeks after treatment) and last longer.

*Adverse experiences are usually self-limited and go away without any action.*

*General adverse experiences and fever are positively associated with the prevalence and intensity of microfilaraemia.*

There are two groups of adverse experiences, general and local.

### **General adverse experiences**

General adverse experiences and fever are positively associated with the level and intensity of microfilaraemia. Experiences occur early during the treatment and generally do not last more than 3 days.

General adverse experiences, in decreasing order of frequency, are:

- headache,
- body ache,
- fever,
- dizziness,
- decreased appetite,
- malaise,
- nausea,
- urticaria (itching),
- vomiting,
- wheezing,
- bronchial asthma.

### **Local adverse experiences**

The most common local experiences are scrotal nodules caused by the death of the adult worms. Others include, in decreasing order of frequency:

- lymphadenitis (inflammation of a lymph node),
- funiculitis (inflammation of the spermatic chord),
- epididymitis (inflammation of the epididymis, the structure in the duct where spermatozoa are stored),
- lymphangitis (inflammation of a lymphatic vessel),
- orchalgia (pain in the testicle),
- abscess formation, ulceration or transient lymphoedema (rare).

## Management of adverse experiences

The most important principle underlying the management of adverse experiences is that **the community should be informed** in advance of the possibility that such reactions can occur, primarily in those individuals with moderate to heavy infection in whom parasites are being killed by the drugs. Equally important is access to, and provision of, appropriate medical care for all those who need it following the administration of the drugs.

Drug distributors and health workers should be able to reassure patients with mild adverse experiences and should refer those with severe adverse experiences to designated treatment facilities and, if necessary, help them to reach those facilities.

Health centres and local practitioners should be familiar with the reactions that might occur and should be prepared to administer treatment, either palliative (e.g. paracetamol, phenergan) or therapeutic (e.g. intravenous fluids, cortisone).

## Monitoring and reporting of adverse experiences

Improper management of adverse experiences can lead to an adverse impact on, and response to, the programme. Measures should therefore be taken to:

- forewarn the community that some adverse experiences will be encountered in some individuals;
- inform the community and their leaders of places where they can obtain help, if required, in the event of adverse experiences;
- identify health centres with facilities for treating adverse experiences;
- inform local practitioners how to treat patients who may report to them with adverse experiences.

*The most important principle underlying the management of adverse experiences is that the community should be informed in advance of the possibility that such experiences can occur.*

You should read carefully the next section of this guide before starting the session to which it relates.

## NOTES



## LEARNING UNIT 5

# How to address people and what to tell them

### Learning objectives

By the end of this Unit you should be able to:

- ▶ assess the value of positive interaction with people
- ▶ choose appropriate ways to communicate with people receiving drugs during the elimination campaign

Your personality has an important part to play in your interaction with people. Most of us have to operate with the personality we have because it is difficult, and probably not desirable, to change. However, everyone should be able to create a friendly atmosphere when interacting with people.

People should be presented with information that they can understand. Facts should be presented in words with which people are familiar, and facts should be relevant to them. In the case of lymphatic filariasis you may have to present the disease to villagers, explain the importance of taking the drugs to interrupt the transmission of the disease, describe the exclusion criteria, explain what adverse reactions might occur as a result of taking the drugs, provide details on what to do in the event of adverse reactions, and more generally, give the community a positive message about the lymphatic filariasis elimination campaign.

How to address people and what to tell them

### Learner's Guide



***When presenting information to people, you should use familiar words to introduce unfamiliar information.***

You should realize that the health worker:

- has a scientific attitude towards lymphatic filariasis and other diseases,
- uses medical and scientific terms,
- is accustomed to receiving technical information.

The villager, by contrast:

- fears the illness in general,
- does not understand most of the medical and scientific terminology used,
- is concerned about being well and may not wish to talk about diseases,
- may be a person with little or no education.

When presenting information to people you should:

- use familiar words to introduce unfamiliar information,
- use examples and comparisons,
- present the messages clearly, without distracting those addressed with irrelevant details.

When interacting with people you should:

- greet them,
- establish good relationships,
- smile and be pleasant,
- use appropriate vocabulary,
- be confident, polite and approach them with warmth,
- praise them for what they do correctly,
- avoid arrogant behaviour,
- avoid insults or sarcasm,
- do not refuse hospitality, but before accepting an invitation for a chat or a cup of tea, coffee or water, make it clear that you have other people to meet during your working day.

At the first meeting with the community leader you should give an overview of the programme in clear and concise terms. Explain carefully and clearly:

- that the drugs are free – they should never be sold or paid for,
- that certain people will be given the drug while others will not, and why,
- what is expected of the community,
- what the community will gain from the drug distribution.

**You should read carefully the next section of this guide before starting the session to which it relates.**

## NOTES





## Messages for the non-compliant

### Learning objectives

By the end of this Unit you should be able to:

- ▶ **reassure people who may be reluctant to accept the drugs distributed during the national Programme to Eliminate Lymphatic Filariasis**
- ▶ **emphasize the importance of treating as many people as possible**

As stated in Learning Unit 1, one of the principles of the Programme to Eliminate Lymphatic Filariasis is the interruption of transmission of infection through treatment of the entire at-risk population with a single administration of two drugs given together once a year for 4–6 years. Thus, it is critical to provide drugs to the largest possible number of people in the endemic areas.

By the time you are involved in drug distribution, a media campaign to raise people's awareness of the purpose of the programme will have taken place. Nevertheless, some villagers may refuse to take the drugs for a variety of reasons, some of which are given below:

*It is critical to provide drugs to the largest number of people.*

**Learner's Guide**



- I feel well, so I don't need to take the drugs.
- If I need drugs I will go to see the doctor.
- How do you know that I am sick/that I need drugs?
- Why were people in the village next to us not treated?
- I don't want to take the drugs, I heard that they will make you sick.
- Why don't you want to give the drugs to my little boy/girl?
- I haven't heard anything about this disease/elimination programme.
- Leave the drugs here, I will take them another day.
- Leave the drugs with me, I will give the tablets to him/her later on during the week.
- I know somebody with a big swollen leg who took the drug and nothing happened. Your drug can't work very well.
- How do you know I am not allergic to the drugs?
- I never take drugs.
- Are you sure it's not against our religion?
- I am not able to swallow tablets that big.



***You should be able  
to convince people  
that the drugs are safe  
(see Learning Unit 5).***

You should be able to convince people that the drugs are safe, that any problems that might arise will be minor (see Learning Unit 5), and that such problems usually disappear very quickly. Reassure people that the medical services will be available to treat any complication that may arise.

You should explain about the exclusion criteria (see Learning Unit 3). Pregnant women, children less than 90 cm in height (under 5 years of age) and the very sick should not be treated. Explain to the people that this shows how much the health authorities care about their health.

Another important point that you may want to clarify is that the drugs are not intended to cure the chronic effects of lymphatic filariasis. In other words, people who are already affected by the disease (for example whose limbs are swollen) will have to live with their condition. However, there are methods to improve their way of life and to greatly decrease their suffering.

It is also vital to explain that, even if a person feels well, he or she may be infected by the parasite and at risk of developing the disease. Furthermore, this person will still carry parasites that may be spread to others by the mosquito. Stress that the drugs will kill the parasites inside people's bodies and that, consequently, mosquitoes will no longer spread the disease. Explain that the next generation will be free of the disease.

If people find albendazole tablets too big to swallow, explain that they can be chewed and that they are pleasantly flavoured.

***Explain about the exclusion criteria (see Learning Unit 3).***

***Another important point that you may want to clarify is that the drugs are not intended to cure the chronic effects of lymphatic filariasis.***

**You should read carefully the next section of this guide before starting the session to which it relates.**

## NOTES





## Recording data

### Learning objectives

**By the end of this Unit you should be able to:**

- ▶ **describe the significance of recording data**
- ▶ **describe the data flow within the record-keeping system of the national Programme to Eliminate Lymphatic Filariasis**
- ▶ **correctly complete the forms that you will use during drug distribution**

Supply and resupply of the drugs to the national Programme to Eliminate Lymphatic Filariasis cannot be guaranteed if record-keeping is inadequate. A good system of record-keeping is essential for the smooth running of the programme. It should include the following elements:

- numbers of persons treated and retreated
- identification and re-identification of persons treated,
- rounds of treatment received,
- drug tablet inventory,
- movement of personnel and vehicles, where appropriate.

Recording forms are at the heart of the supply information system. They are documents that move from one level to another, carrying specific information about drug needs, drug movements, and associated financial transactions. Copies of recording forms, filed at various points of the distribution network, form the audit trail for tracing the flow of the drugs. The forms should be filled in regularly and accurately. They are used to communicate supply needs, consumption data and other information relevant to the health system.

You should draw a scheme of the record-keeping system of the national Programme to Eliminate Lymphatic Filariasis in your country and discuss it with the participants during your training.

A sample of a pro-forma for recording household members for mass drug distribution is given in Annex 1, at the end of this training module.

**You should read carefully the next section of this guide before starting the session to which it relates.**

## NOTES





## Supervision of the health worker

### Learning objectives

By the end of this Unit you should be able to:

- ▶ understand why supervision of your work is necessary
- ▶ be aware that supervision can be carried out in a number of ways
- ▶ understand what you must do to help your supervisor in his or her job

### The need for supervision

Supervision is necessary for a number of reasons:

- it confirms that you are doing your job in the way you have been trained to do,
- it enables you to make minor but necessary corrections to your working methods,
- it should indicate whether you need retraining or whether you are suitable for more advanced training,
- it provides a good opportunity for you to discuss with your supervisor any difficulties you may be having with your work.

### Types of supervision

There are two basic types of supervision: direct and indirect.

#### Direct supervision

In the case of direct supervision, your supervisor is able to be in constant touch with you over a period of time. That period may be a single day, if your supervisor is visiting your place of work, or longer. The supervisor is able to see what you do in your job and how you do it. You have the opportunity to discuss important aspects of your work, and this is helpful to both of you.

### Indirect supervision

In the case of indirect supervision, the supervisor can judge how well you are working only from the records that you submit regularly. However, the supervisor needs to see how you are dealing with the distribution of drugs how correctly you are identifying the villagers who should be excluded from drug distribution, and may also want to know how many people are refusing the drugs and how you deal with them. For this reason it is critical that all forms and reports you compile are well organized, complete and up to date. Forms and reports that are disorganized, incomplete and out of date project a poor image of your professional performance, and do not allow the system to function correctly.

## Pro-forma for recording household members for mass drug administration

1. State/Region .....
2. Implementation unit .....
3. Autonomous community/Village .....
4. Ward .....
5. Household identifier .....

Details of household members and history of receiving ivermectin and albendazole

No.	Name (surname/family name)	Relation to head of household	Age (years)	Sex (m/f)	Treatment received (y/n) reasons for not taking (code a)	Date received	Number of tablets (S/L code b)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Note: List should include all the members of the household even if they did not receive or refused the drugs

a) Code for reasons for not taking drugs: 1-Pregnant; 2-Lactating; 3-Sick; 4-No knowledge; 5-Not present; 6-Did not receive; 7-Others

b) S-small tablets (ivermectin); L-large tablets (albendazole)

Further information is available  
at the following address:

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CDS Information Resource Centre  
World Health Organization  
1211 Geneva 27, Switzerland  
fax: +41 22 791 42 85  
e-mail: [cdsdoc@who.int](mailto:cdsdoc@who.int)

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and on the following websites:

<http://www.who.int>  
<http://www.filariasis.org>