

INSTRUCTOR'S BOOKLET

There are very effective treatments to cure such diseases as diarrhea, tuberculosis and malaria. Among various types of measures taken to facilitate access to healthcare, **good public education and information is crucial.**

Medications are very specific products. Ensuring efficient and safe use of medications requires that you respect of a certain number of rules.

Medical staff are very well trained to help and guide people during their treatment but **the members of the community also have a very important role to play.**

Knowing how to respond to a disease, respecting the rules of medication use, knowing how to protect oneself against diseases, understanding the official medication chain, being aware of the risk of selfmedication and **the illegal medication market are valuable pieces of knowledge to share, especially with the younger generation, through dialogue and exchanging ideas and advice.**

Foreword

Note to the instructors :

The purpose of the partnership between Synergies Africaines and Les Entreprises du médicament is to offer an education and training programme to teach young children and teenagers to use medication properly. The programme aims, among other things, to provide children with information on how to recognize a disease, how to take the prescribed medication properly and safely and how to exclusively use medication coming from the official medical distribution chain.

To become an instructor we recommend the following profiles : teachers, community health worker, rural facilitator, association leaders (women, youth health clubs ...), social workers. For instructors not working in the education sector an academic level equivalent to the first degree of higher education is required.

The instructor will need to become familiar with all the tools of the training programme in order to be able to answer any question : the teaching module, the student's booklet and the comic strip. The instructor will have to adapt the training to the various target populations (children , mothers ...) and the training programme will either be completely or partially provided. When given in its full form we recommend that the various themes be studied in the order they appear in the programme.

There are 3 tools in the programme :

The instructor's booklet :

A 28 page large format brochure including information and key messages to disseminate within the community but also a lot of more specific information as well as the answers to the activities provided in the children's booklet. Objective : allow the instructor to answer as many questions as possible regarding medication and its use.

My Passport to Health

A 12 page coloured and illustrated booklet aiming to remind children in a simple way the key messages given by the instructor. The various activities provided in the booklet stimulate the child's memory and observation skills.

The comic strip

- This comic strip is bound to be spontaneously shared among the members of the community.

The key-message :

3 large chapters covering 7 main issues:

I AM SICK...

1/ How to recognise and respond to a disease

This lesson teaches children how to recognise the most frequent symptoms and how to respond to the disease within a very short time.

Activity : Children describe in their own words what they feel and where it hurts. Match each word with the right symptom.

2/ At the health centre

The role of the medical staff is crucial to identify and cure the disease. The different steps of a visit to the health centre from the medical examination to the prescription of medication.

Activity : Have a look at these pictures representing the different steps of a visit to the health centre. Match each dialogue between the medical staff and the child with the right picture.

I HAVE TO TAKE MEDICATION...

3/ The various sorts of medication

Getting to know the various sorts of medication better as well as how to use them and becoming more aware of the specificity of each one.

Activity : Have a look at these 6 pictures representing several medications. Can you recognise them ? Draw a line to match each picture to the right word.

4/ Prevent, relieve, cure

This lesson is about vaccination and understanding better the role of medication.

Activity : The children will have to write down all the medications they have been given and their roles if they know them.

5/ How to use medication properly

Respect the length of the treatment, the dangers of self-medication, the expiration date : these are the basic rules of a proper use of medication. These rules are mandatory for a safe and effective usage of medication.

Activity : Have a look at these pictures. Some of them show dangerous behaviour with medication. Can you tick them ?

TO BE WELL INFORMED LEADS TO BETTER TREATMENT

6/ Learn how to know the different diseases and to protect oneself

Malaria, tuberculosis, diarrhea : 3 detailed information sheets to recognise the symptoms, the disease evolution, how the disease is spread, the means of protection.

Activity : Match each word in the list to a letter of the disease it corresponds to

7/ The medication circuit

A presentation of the official medication circuit from manufacturing to distribution allowing to insist on the dangers of buying medication from street vendors.

Activity : Have a careful look at the places and the people in these pictures. Some are part of the official distribution circuit and some are not. Can you recognize them ?

ALSO TO BE FOUND IN THE INSTRUCTOR'S BOOKLET :

- A glossary explaining the most important words used in the lessons.

I am sick....

I am sick ...

1- How to recognize and respond to a disease

- Diseases can be detected thanks to a certain number of signs that affect various parts of the body : we call them the symptoms of the disease.
- Some symptoms are clearly visible (spots, a cough, swelling ...), others are pain or discomfort felt by the sick person (tiredness, heat, chills, stomach or headaches, ...)
- It is very important to watch out for the first symptoms of a disease to be able to respond to it as soon as possible.

Les symptômes les plus fréquents :

FEVER	NAUSEA, VOMITING
<ul style="list-style-type: none"> - A warm feeling particularly in the head (forehead and temples) - Feeling hot and cold alternately - Chills and body aches - Headaches - Tiredness 	<ul style="list-style-type: none"> - No appetite - Stomach pains - Discomfort after eating - Acid reflux in the mouth

Troubles du transit	
CONSTIPATION	DIARRHEA
<ul style="list-style-type: none"> - Pain and sensation of weight in the stomach - Difficulty to go to the toilet - A swollen and hard abdomen 	<ul style="list-style-type: none"> - Stomach pains - Frequent loose or liquid stools

Toux	
DRY COUGH	WET COUGH
<ul style="list-style-type: none"> - Persistent cough - Dry and sore throat and mouth - The voice changes and becomes hoarse and « broken » 	<ul style="list-style-type: none"> - Feeling of congestion in the throat and in the chest - Need to spit - Difficulty to breathe - Wheezing sound when breathing - A noise in the lungs indicating a congestion of the lungs - Each disease has specific symptoms

Each disease has its own specific symptoms

Each disease has its own specific symptoms but one symptom may be common to several diseases..

Fever for example is a symptom in various diseases such as malaria, diarrhea, tuberculosis and many others.

But if the fever comes with a cough and spitting out blood, the medical staff will turn to a more specific disease group among which tuberculosis.

Further information

Each symptom is linked to a part or a system of the human body, for example:

- Palpitations (hearing a fast heartbeat, having difficulty breathing and a feeling of suffocation ...) occur in the the heart and the blood vessels.
- Cough is related to the respiratory system,
- Nausea, vomiting and disorders of the transit are problems related to the digestive system..

There are three stages in the course of a disease during which the symptoms evolve :

- **The outbreak of the disease** comes with a certain number of signs. It is the right time to decide to go to the health centre to respond as fast as possible to the disease.
- **Period of illness** : all the symptoms are generally present and active but the certain can disappear once the disease is declared and others may appear.
- **The step towards recovery** : the symptoms disappear with the treatment, sometimes slowly, untill total recovery. The first signs of improvement and recovery musn't lead one to stop the treatment, on the contrary it is crucial to respect the length of the treatment prescribed by the medical staff..

CHECKING THE « ACTIVITY » PART WITH THE CHILDREN

Children describe in their own words what they feel and where it hurts. Match each word with the right symptom.

- My head feels hot, my body aches and I am very tired...

I have a FEVER

- I have a pain in my stomach, I can't go to the toilet and I have hard stools...

I suffer from CONSTIPATION

- I have no appetite, I feel bad after eating, I feel like vomiting...

I have NAUSEA

- I have a barking cough, I need to spit out and I have a sore throat...

I have a WET COUGH

- I have a pain in my stomach, I go to the toilet more often than usual and I have liquid stools...

I have DIARRHEA

I am sick...

2. At the health centre

- **The appearance of symptoms or a change in behaviour are warning signals indicating that you should go to the health centre to be examined by someone from the medical staff as soon as possible.**
- **The medical staff alone have the ability to recognize a disease and prescribe the right medication if necessary.**
- **They can also show you how to take the medication and give general advice as to how protect oneself against diseases.**

Going to the health centre is the right thing to do !

It is also the responsibility of the family and close relatives to see and recognize the symptoms of a disease in a person :

- Beyond clearly visible symptoms it is very important to pay attention to less obvious symptoms or behaviour changes such as a loss of appetite, a difficulty in seeing, hearing or speaking, restless sleep, repeated losses of attention or brief and repeated losses of consciousness...

- Sometimes the person experiencing these symptoms is not really aware of them or thinks that « it will pass». It is then the family's responsibility and role to make the decision to bring the person to the health centre.

- Even when there are no symptoms of a disease the parents of small children need to pay regular visits to the health centre to check if the children are putting on enough weight, growing and developing well, and to give them the necessary vaccines.

A TYPICAL VISIT TO THE HEALTH CENTRE

THE MEDICAL HISTORY

If the medical staff have the the patient's medical record or health booklet they will start by checking it. These documents will provide precious information about the patient's health problems as well as the medication that has been prescribed in the past. This is what we call the medical history. This information will help making a diagnosis (identifying a disease) and prescribing the right medication.

QUESTION PERIOD

The medical staff ask the patient and the people who have come with him or her precise questions to collect information regarding the appearance and evolution of the symptoms.

It is very important to tell the medical staff all the symptoms you have noticed to help them identify precisely the disease you have contracted.

THE MEDICAL EXAMINATION

The medical staff examine the patient who is generally lying on the examination table :

- The member of the medical staff will observe the visible symptoms indicated by the patient and feel the corresponding parts of his or her body.
- He will also examine other areas of the body to look for other potential symptoms unnoticed by the patient : he listens to the heartbeat, the breathing, may look at the bottom of the throat, the ears and take a look at the nails and skin.

If the medical staff considers it necessary they can ask for further examination as a blood test or an X-ray (a technique enabling to take pictures of the human body in order to see the skeleton).

THE DIAGNOSIS

After having done all the necessary medical tests the medical staff will make a diagnosis, that is to say they will identify the disease responsible for the symptoms and its level of severity.

THE PRESCRIPTION

The medical staff tells the patient which treatment and medical care they will have to undergo : the names of the various medications of course but also how and when they will have to take them (before, during or after the meals), the exact times to take the medications and the length of the treatment.

They will also precise the evolution of the disease towards recovery and tell the patient when they should come back to the health centre during the treatment for a check-up.

They should also give general advice regarding food, rest, the possible daily care and how to protect oneself against diseases.

The prescription is written on a sheet of paper and should be readable. If the medical staff have the patient's medical record or health booklet they will be able to write down all the details of the visit to the health centre to refer to during the next visit. It is therefore very important to keep these documents and bring them back at each visit.

THE PRESCRIBED MEDICATION DOSE MUST NOT BE MODIFIED (INCREASED OR DIMINISHED) WITHOUT PRIOR NOTICE FROM THE MEDICAL STAFF.

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CHECKING THE « ACTIVITY » PART WITH THE CHILDREN

Have a look at these pictures representing the life of a child at the health centre. Match each dialogue with the right picture.



You can't eat anything, you look tired and your forehead feels hot.



I have had a stomach pain for two days and I have to go to the toilet all the time.



I am going to take your temperature and touch your stomach in various places. Tell me when it hurts !



You have diarrhea. You were right to come before it got too serious.



You must take this medication twice a day during four days.


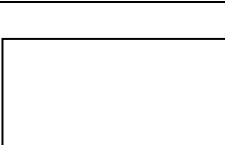


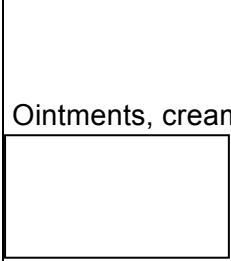



I have to take medication

I have to take medication

1. The various sorts of medication

The shape of a medication and the way it is dispensed are designed to enable the medication to have maximum effectiveness.

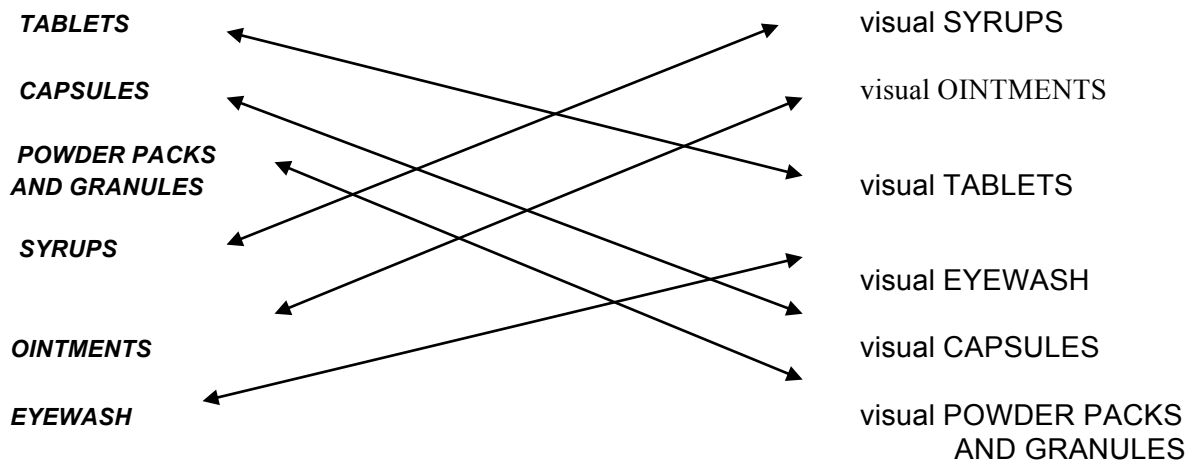
	TABLETS		CAPSULES
Some are chewable but most of them need to be swallowed with water. Others are designed to release their active substance in the digestive track little by little to have a long-lasting effect.		Capsules always need to be swallowed with their coating and shouldn't be opened. The coating is totally safe and designed to dissolve in the stomach and intestines in order to release their active substance.	
	POWDER PACKS AND GRANULES		SYRUPS
Powders are generally mixed with water or added to the food of young children. Granules can be swallowed or placed under the tongue where they melt.		Syrups are liquid preparations generally sweet and flavoured to make them taste better. Be careful, the children mustn't confuse them with sweets !	
	OINTMENTS Ointments, creams and lotions need to be applied directly on the skin. Most of the time they have a localised action (against pain for example).		EYEWASH
		They are liquids designed to cure eye and eye-lid diseases. You use them by applying a few drops only in the corner of the eye.	

FURTHER INFORMATION

- The form of a medication is called « galenic form » in memory of the greek antiquity doctor Galien.
- We call the active substance of a medication the specific molecule it contains and which has a therapeutic action.
- In addition to those mentioned previously there are other forms and methods of administration of medications :
 - **Injectable ampoules** are injected in the muscles, under the skin, in the veins or the articulations.
 - **Rectally administrated suppositories** ensure fast absorption of certain active substances. They are very useful when a child has difficulty swallowing tablets.
 - **Drinkable ampoules and drops** are generally diluted in half a glass of water.
 - Drops : **eye-drops or ear-drops**.
 - **Mouthwashes, mouth-sprays and aerosol sprays** need to be applied at the back of the mouth to cure a mouth, larynx or pharynx infection.
 - **Transdermal patches** are applied directly to the skin to allow the active substance to enter directly the blood stream.

CHECKING THE « ACTIVITY » PART WITH THE CHILDREN

Have a look at these 6 pictures representing various medications. Can you recognise them ? Match each picture to the right word.



I have to take medication

2. Prevent, relieve, cure

Medications can play three different roles :

- To prevent a disease
- To relieve the pain
- To cure a disease

DISEASE PREVENTION

Preventive medications such as vaccines or serums are used to avoid developing a disease. They allow the human body to produce specific defenses (antibodies) that will then protect oneself against the disease.

Dispensed systematically to a large number of people these preventive medications reduce the risk of contagion and epidemics. Thanks to them certain diseases such as smallpox have been totally eradicated from the face of the earth.

Nowadays certain vaccines or serums are given all over the world :

It is the case for vaccines against measles, polio, diphteria, tetanus, pertussis and tuberculosis.

BE CAREFUL

According to the World Health Organisation's figures, mortality due to measles has decreased by 46 % in the last 4 years.

Nowadays certain vaccines or serums are given all over the world :

It is the case for vaccines against measles, polio, diphteria, tetanus, pertussis and tuberculosis.

You can sometimes get several vaccines in a single injection as for diphteria, tetanus and pertussis. In other cases it is necessary to have several injections.

D'autres sont réservés à des régions où le risque d'attraper certaines maladies est plus grand :

- The anti-amaril vaccine against yellow fever is given in one injection as from the age of 9 months. It has to be renewed every 10 years.
- The anti-cholera vaccine is given orally as a single dose.
- For the anti-typhoid fever vaccine you need one intramuscular injection and a secondary vaccination 3 years later.
- Fortunately there is now a single injection combining vaccines against Group A and C meningitis which protects children over 2 years old during approximately 3 years.
- But also : a vaccine against rubella especially recommended for women of childbearing age, and more recently the vaccine against hepatitis B..

It is crucial to be aware of the risks associated to the area you live in or travel to, and to be kept well informed of the available prevention programmes.

FURTHER INFORMATION

There are also other sorts of preventer medications in addition to vaccines and serums:

Anti-allergic treatments are given to people with eye, skin or respiratory allergies to prevent any future allergy.

Vitamins and mineral salts have a major preventive impact on our health in particular for babies, young children and pregnant women. For example:

- A lack in **vitamine A** can cause major vision problems and lead to blindness.
- **Vitamine D** and calcium to prevent bone disorders.
- **Vitamine C** to avoid scurvy (a disease which causes a great tiredness, gum bleeding, receding gums ...)
- **Iron** to cure severe fatigue states and avoid anemia, a serious blood disorder affecting mainly women and children..

TO RELIEVE THE PAIN AND EASE DISCOMFORT

Fever, headaches, stomach pain, muscle or joint discomfort ... : some diseases come with painful symptoms or cause discomfort. These medications are generally taken orally (capsules, tablets, syrups ...).

TO CURE DISEASES

It is the major role of medications. Antibiotics for example fight against the germs causing an infection.

As an example antibiotics can be prescribed to cure bacterial diarrhea (this type of diarrhea is caught by drinking contaminated water or food).

ACTIVITY WITH THE CHILDREN

Invite the children to use their booklet to write down all the medications they have already taken, and if they can, the particular role of each of them (prevent, relieve or cure).

This activity will allow a written record to be kept and will enable the medical staff to know the child's health record during a visit.

I have to take medication

3. How to use medication properly

For a medication to be effective and safe it is crucial to respect a few use rules.

One of the tasks of the medical staff is to inform the patient about how to use the medication.

Always respect the dose and the length of treatment recommended by the medical staff.

- **If you take a lower dosage than recommended the medication may not be effective and consequently thought as unsuitable.**
- Even if you have the feeling that you are not sick anymore, for example if your temperature has dropped, **it is necessary to take the treatment until the end, that is to say respect the dose and the length of treatment prescribed by the medical staff to avoid a relapse.**
- **It would be wrong to think that you will cure faster if you take a higher dose of medication than prescribed.** It could be on the contrary very dangerous.
- **Respecting multi-times daily dosing of the medication is also very important.** The effect of most medications is limited in time and that is why you need to take them in several times.
- There is also a specific way to take each medication and you will find it on the **medication instructions** : tablets and capsules for example need to be taken with water. Some have to be taken with meals, others between meals. Never hesitate to ask the medical staff to explain and show you how to use your medications for them to be effective.

CONTRAINDICATIONS

Certain medications can't be given to some people because of their age, medical condition, possible allergies or because of they are taking other medications : it is very important to be aware and respect these contraindications.

Certain medications are not recommended for pregnant or breast-feeding women because they would harm the unborn child or the baby.

Lastly, certain diseases will forbid you from taking certain medications, and certain medications cannot be taken simultaneously.

It is therefore important to inform the medical staff of your medical condition, the treatments you have been prescribed, and the diseases you have or had in the past.

NEVER TAKE A MEDICATION WITHOUT A PRESCRIPTION FROM THE MEDICAL STAFF

- Similar symptoms (fever, headaches, stomach pains, vomiting ...) can be signs of very different diseases, or a close disease needing a different treatment. YOU THEREFORE CANNOT DECIDE ON YOUR OWN TO TAKE A MEDICATION THAT HAS ALREADY BEEN PRESCRIBED TO YOU IN THE PAST.
- In the same way IT IS DANGEROUS TO GIVE SOMEONE MEDICATION just because their symptoms are similar to the ones related to a disease you had in the past.
- YOU SHOULD NEVER GIVE A CHILD A MEDICATION THAT HAS BEEN PRESCRIBED TO AN ADULT : children need suitable medications because their body doesn't function in the same way as adults.
- ALWAYS AND ONLY BUY MEDICATIONS FROM THE OFFICIAL DISTRIBUTION CIRCUIT (chemists, pharmacies, hospitals, medical dispensaries, drugstores ...). Never buy medications from street vendors (see chapter 3)

NEVER LEAVE MEDICATION IN THE REACH OF YOUNG CHILDREN

- Medications often contain a lot of sugar and fruity flavours to make them taste nice. They sometimes have bright colours that are attractive to children.
- You need therefore to put your medications in a safe place out of the reach of young children so that they are not tempted to taste them.
- When medication has been prescribed to a young child, an adult needs to supervise and check they take the right dose and respect the length recommended by the medical staff.

CHECK THE EXPIRATION DATE

- A medication has a limited life span. The date after which you cannot take it any longer is written on the box. Always check a medication has not expired before taking it.
- Certain medications (such as eye-drops, syrups ...) have a very short life span. Make sure you respect it.

SIDE EFFECTS

- Certain medications may sometimes cause discomfort or a feeling of unease. You have to inform the medical staff of these side effects and they will advise you what to do in this case.

FURTHER INFORMATION

THE MEDICATION INSTRUCTIONS provide very important additional information. Read it carefully before taking the medication and keep it with you during the length of your treatment to be able to consult it regularly. It indicates:

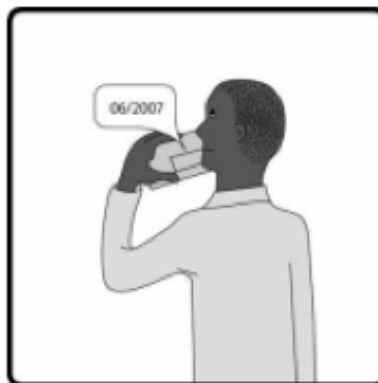
- The name of the medication, its manufacturer and its composition.
- The medication's manual : posology and schedules, expiration date and contraindications, method of administration, length of treatment.
- Preservation conditions (for example : keep ignition sources away, store away from humidity ...)
- Keep in mind that this is indicative additional information and that you always must respect the recommendations prescribed by the medical staff and written on the prescription or the health record. They can also be written directly on the medication box.

CHECK THE « ACTIVITY » PART WITH THE CHILDREN :

Have a look at these pictures. Some of them show dangerous behaviour with medication. Can you tick them ?



Never unpack or split a capsule



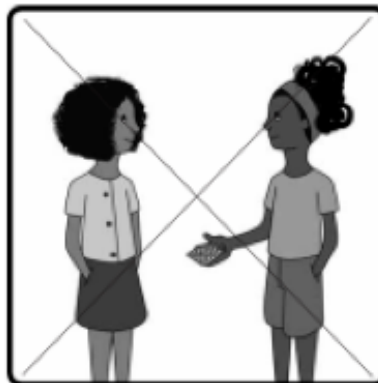
Respect the date



Read the instructions



Respect schedules



Never take medication from another child



Never take medication on your own

**Better information leads
to better treatment**

Better information leads to better treatment

1. Learn how to know the different diseases and to protect oneself

To protect one's health it is important to know :

- The main symptoms of a disease
- The way a disease is transmitted
- Its evolution and the existing resources to fight against it.

MALARIA

- Malaria is parasitic disease transmitted by a mosquito infected with Plasmodium and called female Anopheles mosquito.
- **It can be deadly if not cured.**
- **Its consequences can be much more serious, even deadly for young children and pregnant women.**

IMPORTANT

- According to the World Health Organization Malaria kills a child every 30 seconds.
- It is the main cause of death among children under 5 years old

○ SYMPTOMS

- The main symptom is a fever that occurs between 8 and 30 days after contamination.
- But also other disorders such as:
 - Shivers
 - Headaches
 - Muscle aches
 - General tiredness
 - Vomiting
 - Diarrhea
 - Cough
 - Jaundice (yellow eyes and skin)
 - Paleness as a sign of anemia (severe blood disorder)

○ MODE OF TRANSMISSION

- The disease is transmitted by a mosquito. There is no transmission from person to person.
- However, an infected pregnant woman can transmit the disease to her baby.
- The rainy season increases the transmission of the disease.

○ THE PROGRESSION OF THE DISEASE

There are two forms of Malaria:

Simple Malaria:

- It is the most frequent. It can be cured with antimalarial tablets prescribed by the health centre.
- Recovery can be quite fast provided you follow the treatment carefully and long enough.
- However, without appropriate medication, simple malaria can quickly develop into a much more serious form of the disease.

Severe Malaria:

- In addition to the symptoms previously described the disease can cause seizures (involuntary contractions of a part of the body or of all the body muscles), **a coma (a state of unconsciousness) and rapidly lead to death.**
- **The sick person needs to be immediately put under medical supervision at the health centre.**

○ PRACTICES OF PREVENTION

Pregnant women and children under five are strongly advised to take a preventive treatment on prescription of the medical staff because of the devastating consequences of Malaria .

Recommended precautions:

- No stagnant waters around the houses.
- At home you must use a treated mosquito net or window screens to prevent mosquitoes from getting inside the house. The use of insecticides is recommended if regularly renewed.
- Outside in the evening it is important to wear clothes that entirely cover your body.

DIARRHEA

Diarrhea can be a symptom of a disease, but severe diarrhea can cause death

IMPORTANT

- Acute diarrhea is one of the main causes of death among children under five years old.
- It mainly affects children or people already weakened by another disease.

○ SYMPTOMS

- Unusually frequent soft or liquid stools (more than 3 or 4 times a day)
- Vomiting
- Fever
- No appetite
- Weakness and general tiredness
- Sometimes blood or mucus in the stools
- A dry mouth or tongue, a reluctance to drink or on the contrary severe thirst are signs of dehydration which is very dangerous and sometimes deadly

○ MODE OF TRANSMISSION

The disease is more likely to develop because of:

- The consumption of infected or polluted water and food stored or cooked in bad conditions.
- Poor personal hygiene.
- Being near animal excrements.

The disease can be transmitted from person to person : the stools and vomiting of a sick person are extremely contagious.

○ THE PROGRESSION OF THE DISEASE

- It can last between several days or several weeks. You have to go to the health centre within the very first days of the outbreak of the diarrhea.
- To avoid dehydration the medical staff will prescribe an oral rehydration salt solution if they think it necessary.
- In any case it is very important to give the sick person a lot to drink as long as the diarrhea hasn't disappeared.
- Choose to eat very nutritious food to avoid malnutrition that often comes with diarrhea.

○ PRACTICES OF PREVENTION

- Being aware of the available resources to clean water in your area.
- Water needs to be boiled before you drink it and food thoroughly cleaned. Ensure you cook your food well and eat it immediately after cooking.
- Wash your hands with water and soap:
 - After using the toilet, having touched the baby's bottom or diapers,
 - Before cooking, serving or eating food
- Dry your hands with a clean cloth or towel.
- Regularly clip your nails

TUBERCULOSIS

- Tuberculosis is a disease caused by a bacterium known as Koch's bacillus. It spreads from person to person by airborne transmission.
- It mainly affects people suffering from malnutrition and immune deficiency (low natural defenses) often caused by a disease (HIV/AIDS mainly)

IMPORTANT

Each year 500 000 people die from tuberculosis and this figure is steadily increasing.

○ SYMPTOMS

- Violent, severe, persistent fits of coughing and sometimes coughing up blood.
- Fever (more or less high)
- General tiredness, loss of weight and appetite.
- Difficulty breathing
- Night sweats.

○ MODE OF TRANSMISSION

- When people with infected lungs cough, sneeze, talk or spit they spread microscopic droplets in the air containing the germs of the disease.
- A sick person without treatment contaminates on average 10 to 15 people a year.

○ THE PROGRESSION OF THE DISEASE

There are two forms of tuberculosis:

Primary tuberculosis:

- When there are no symptoms it goes most of the time unnoticed.
- Stopped by the immune system defenses most of the time the infection progresses naturally towards recovery.
- **However 5 to 10 % of all infected people actually develop the disease and become contagious**. This may sometimes occur several years after contamination because the infection can remain hidden in the human body during a long time.

Active-tuberculosis disease:

- It is then extremely serious. **The infection affects the lungs and can spread to other organs of the body**. It can cause death if not correctly taken care of.
- **The treatment consists of administering anti-tuberculosis medication regularly and without interruption during a period of 6 to 8 months on average**. A regular supervision by the medical staff is necessary.
- The sick person should be isolated from other people at the start of the treatment and as long as she or he is contagious (bacteria in the sputum).

○ PRACTICES OF PREVENTION

There is a vaccine against tuberculosis. It is recommended to give it as soon as the baby is born.

FURTHER INFORMATION

- **MALARIA** is transmitted to human beings through an **infected female anopheles mosquito** when it bites to obtain blood needed to nurture its eggs. Male mosquitos don't bite and therefore do not spread the disease.

- **Tuberculosis** is due to a bacterium known as Koch's bacillus. One of the main problems encountered in the fight against **the disease is the development of drug-resistant forms of tuberculosis**. They mainly affect people who were infected but didn't follow the treatment prescribed by the medical staff seriously enough.

CHECK THE « ACTIVITY » PART WITH THE CHILDREN

Match each word in the list to a letter of the disease it corresponds to.

For example the word « parasite » will go on the « P » of the word « Paludism »

PALUDISM:	A	= Antimalarial treatment
PALUDISM:	M	= Mosquito
PALUDISM:	I	= Infant

DIARRHEA:	D	= Drinking water
DIARRHEA:	D	= Dehydration
DIARRHEA:	I	= Infant

TUBERCULOSIS:	C	= Cough
TUBERCULOSIS:	B	= Breathing
TUBERCULOSIS:	C	= Contagion
TUBERCULOSIS:	I	= Infant

Better information leads to better treatment

2. The medication circuit

- There is an official medication circuit from the time it is manufactured to the time it is taken by the patient. This official circuit has rules that ensure safe and effective medication for the patient.

- There is no guarantee for medications found outside this official circuit. This is the case for medications sold illegally on the street, the market, or in shops with no legal authorization.

The official medication circuit

○ Medications are manufactured by **pharmaceutical laboratories**.

Before they sell their products (medications) in a country pharmaceutical laboratories need to obtain an official authorization also called legal authorization. This authorization allows a medication to be distributed in a country.

For the most frequent and urgent diseases each country has specific supply conditions from the manufacturers in agreement with the WHO (World Health Organization)

○ Medications are then sent to the places where they are prescribed:

- At the **hospital**, the health centre or the **pharmacy**, the chemist or the pharmacy officer are responsible for the delivery of the medications prescribed by the medical staff.

- In certain areas where such facilities are limited, medications can sometimes be sold by local shops provided they have an **OFFICIAL AUTHORIZATION**. You can recognize these places because they are generally called « MEDICATION STORE ». They are only allowed to sell the medications mentioned on their official list. They need to be regularly supervised by pharmacists.

MEDICATIONS SOLD ON THE STREET CAN BE VERY DANGEROUS !

Many street sellers acquire medications illegally to resell them on the street, in non-authorised outlets, on the market or in itinerant stores. But medication is no ordinary product : to ensure its efficiency and the patients' safety there are very precise rules for its transit and delivery that the medical staff alone are able to implement.

IMPORTANT

According to the World Health Organization (WHO) out of the one million people who die from malaria every year, 200 000 could be saved if the available medications were effective, good quality and properly used.

5 reasons not to buy medication outside the official circuit

1/ ITS ORIGIN IS NOT CLEARLY IDENTIFIED

These medications could be diverted from their original destination, expired, fake, illegally imported or stolen from drug donations.

Medications from the illegal circuit are most of the time repackaged and re-labelled before they are sold. Their quality cannot be checked by the medical staff and sometimes **they either don't have any active principle or a very different active principle from the one expected. They are often outdated or damaged by poor storage conditions.**

2/ THERE IS NO ADAPTED MEDICAL PRESCRIPTION WHEN YOU BUY THEM

Selfmedication (taking a treatment on one's own initiative) generally goes with buying medication from the illegal market.

The vendors have no medical training and therefore will not be able to tell the patient how and how long they should take the treatment. Even more dangerous : they could supply medications that are not at all adapted to the patient's needs..

3/ THERE IS NO AVAILABLE INFORMATION ON THE MEDICATION

Often sold in bulk these medications have no package and no manual. There are sometimes a few indications but often written in a foreign language.

Therefore the patient is unable to check the name of the medication, its medical indication, its contraindications or even its expiry date.

4/ THEY ARE NOT CHEAPER

Because they are often sold one by one or by the piece medications sold on the street seem cheaper. In fact they are most of the time more expensive than those sold through the official circuit (especially generic medications are within the reach of people with limited financial means.)

Furthermore spending money on ineffective and even dangerous medications is a total waste.

5/ A RISK FOR THE SICK PERSON BUT ALSO FOR THE ENTIRE COMMUNITY

Taking illegal medications can lead to a worsening of the patient's health and eventually cause death. In addition, bacteria responsible for the diseases become more resistant to drugs if these diseases are not treated properly. It becomes then much more difficult to cure these diseases even with good quality medications.

CHECK THE « ACTIVITY » PART WITH THE CHILDREN

Have a careful look at the places and the people in these pictures. Some are part of the official distribution circuit and some are not. Can you recognize them?



GLOSSARY

Active principle :

Substance responsible for the therapeutic effects of a medication. Every medication contains one or several different active principles each of them having a very precise role towards recovery.

Administer medication :

Giving medications to a patient with precise instructions (number of medications, schedules, length of treatment etc ...)

Allergy :

A reaction of the body's immune system to various substances (food, animals, pollens, medications). The symptoms can take various forms : respiratory track (difficulty breathing), ocular route (tears), dermal route (swelling, rash), sneezing ... There are medications to relieve allergies.

Anemia :

Anemia is marked by a decrease in red blood cells and hemoglobin. It can be caused by a nutritional deficiency. Anemia reveals itself through a great tiredness, skin pallor, headaches, dizziness, a sensation of thirst ...

Antibiotics :

A category of medications that aims to prevent the development of bacteria. Antibiotics are not effective against diseases caused by viruses.

Bacterium :

Bacteria are microscopic living organisms usually consisting of a single cell. Some of them are microbes and cause diseases. Others are necessary to life and are present in the air, on the ground, on the skin and in the water.

Cell :

A cell is the basic structural unit of all living organisms. There are between 60 000 and 100 000 billion cells inside the human body.

Contagion :

Transmission of a disease from person to person through direct or indirect contact.

Contraindications :

A list of specific situations in which a medication should not be used, for example for people suffering from certain diseases or when used with other medications. The contraindications are taken into account by the medical staff when they prescribe the medications. They are generally written clearly on the medications manual.

Counterfeit medications :

They are illegal and prohibited fake medications. Most of the time they don't contain any active principle and are therefore totally ineffective in curing a disease. Because their origins are not clearly identified and taken without any medical staff prescription, they can prove very dangerous.

Dehydration :

Excessive loss of water from the body.

Diagnosis :

The process of determining with a medical examination which disease explains a person's symptoms and signs.

Dosage :

Dose of medication prescribed by the medical staff. It is crucial to fully respect the dosage for an effective treatment and the patient's safety. Dosage depends on many factors such as weight, age, medical history and taking other medications.

Epidemic :

The spread of a contagious disease to a large number of people.

Galenic form :

The Galenic form is the individual shape of a medication. It is designed to enable the active principles to reach maximum effectiveness.

Generic medication :

A generic medication is the exact equivalent of a brand medication originally owned by the laboratory that created it and which has become off-brand. The medication belongs then to the public domain and can therefore be manufactured and marketed by other laboratories under a different name. It has the same quantitative and qualitative composition in active principles as the original medication.

Illegal medications :

Medications sold on the street, the market, outside the legal circuit. They are very often stolen, can be expired and therefore very dangerous.

Immune deficiency :

Insufficient natural body's defenses. In case of immune deficiency the patient is more fragile and is more likely to get sick.

Immune system :

A collection of cells whose goal is to defend the human body against diseases.

Medication delivery :

Handing-over the prescribed medications by the medical staff, most often the chemist.

Medical prescription :

The medical staff defines treatment and cares for the sick patient. The medical prescription will be written on a document that will be handed when the medications are dispensed. Only medical staff are authorised to write a prescription.

Malnutrition :

Malnutrition is the condition that develops when the body does not get the right amount of the proper food to maintain healthy. Malnutrition leads to a deterioration of the health condition and can even result to death.

Microbe :

A micro organism (a virus, a bacterium or a parasite) that can cause diseases.

Prescription :

A document written by the medical staff as for administration of medications (name of the medications, length of treatment, schedules). The prescription is handed to the chemist when the medications are dispensed.

Selfmedication :

Taking medication on one's own initiative with no medical staff supervision.

Screening :

A strategy used to identify the possible presence of an as-yet-undiagnosed disease. Screening enables to manage the disease in its early stage for a more effective treatment.

Symptom :

Disorder, discomfort, pain, any unusual sign suggesting a disease outbreak. Symptoms appear before the actual disease but also during its progress. Observation of these symptoms allows the medical staff to identify a possible disease.

Virus :

Micro organism that enters a cell and uses it to multiply and infect other cells of the human body. Diseases such as AIDS are caused by viruses.