



Dispensary guideline: Installation and organisation

# DISPENSARY GUIDELINE

## Installation and organisation

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# **DISPENSARY GUIDELINE**

## Installation and organisation

Intended for people responsible for the planning and/or running of a dispensary during an emergency situation

# CONTENTS

1. INTRODUCTION.....	pg. 6
2. DEFINITIONS.....	pg. 7
3. DESCRIPTION OF ACTIVITIES .....	pg. 8
4. PATIENT FLOW: LAYOUT OF THE DISPENSARY .....	pg. 15
5. HUMAN RESOURCES MANAGEMENT .....	pg.18
6. MANAGEMENT OF MEDICAL AND NON MEDICAL STOCKS .....	pg. 24
7. EPIDEMIOLOGICAL SURVEILLANCE IN THE DISPENSARY. ....	pg. 30
8. EVALUATION .....	pg. 33
9. REPORTING .....	pg. 36
10. REFERENCES .....	pg. 38
11. ANNEXES .....	pg. 39
12. JOB DESCRIPTIONS AND JOB PROFILES .....	pg. 76

# 1. INTRODUCTION

Relief aid organisations have recognised 10 priorities aimed at controlling the mortality rate in refugee situations during the emergency phase. One of these priorities is to provide curative care. Curative care can be offered via different structures and on different levels (basic health care, dispensaries, hospitals, therapeutic feeding centres, special medical epidemic interventions, etc.)

In this guideline, we will provide only information that is needed to organise and supervise a dispensary during an emergency situation. It will focus on the emergency phase but will provide some information related to the post emergency phase. This has been chosen as a priority because, in practice, a dispensary is usually found to be a common central element among the various curative and preventive medical interventions for refugees.

A dispensary will start with minimal services: consultations, oral rehydration treatment, injections, wound dressing, measles immunisation and a pharmacy.

As soon as the first emergency needs are met, one can introduce additional services such as Reproductive Health Care, Expanded Program of Immunisation, etc.

This guideline is meant for the medical person who is responsible for the organisation and supervision of the dispensary. However, different sections of this guideline may also be used by those who are involved in the planning of dispensaries or by staff who are responsible for providing the various services in the dispensary. All forms used in the dispensary and the job descriptions of key staff can be found in the annexes. They will need adaptation for particular situations.

**Some of the annexes of this guideline are therefore available on diskette, PC, Word5.0.**

The footnotes refer to complementary guidelines or literature. Additional books and documents can be obtained via the library or the training specialist.

We invite field workers working in dispensary programs to send us their comments and suggestions on this guideline. They have been essential in the formation of the guideline and are required for the continuing development of methods and approaches to the problems faced in the field.

Please send your remarks to:

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## 2. DEFINITIONS

Different levels of curative care in refugee situations in the emergency phase:

### **Referral Hospital:**

Offers specialised services to a small number of patients who cannot be cared for at lower levels. These services include major surgical procedures, complicated obstetrics, advanced diagnostic facilities like X-rays, a laboratory, a facility for blood-transfusion, etc. Doctors and specialists are present or available 24 hours per day.

If possible, these services are provided in a pre-existing hospital. When access to a local hospital is not possible, or when dealing with large camps, field- or camp hospitals will have to be erected on the refugee site itself. Depending on the level of services provided at such a camp hospital, there may still be a need for referral of patients to hospital outside the camp.

### **Central Health Facility (Health Centre or Dispensary):**

This level should be able to deal with most of the causes of morbidity (all of the common, priority diseases) which are treatable on an outpatient basis. A Central Health Facility is used as a referral centre in the camp and is staffed with highly trained medical staff. There should be one central facility for every 10.000 – 30.000 refugees. If hospital services are not available in the camp or its vicinity, it may be necessary to set up an In-Patient unit, and to offer 24-hour emergency services. Another possibility is an observation unit of a few beds to admit patients for 1 or 2 days in order to decide whether or not they need referral to a hospital. A medical doctor should supervise the consultations (and the In-Patient section if applicable).

### **Peripheral Health Facilities (Health Post or Health Clinic):**

There is a need for decentralised health services, easily accessible to the whole population and providing a very basic level of care. One Health Post should be established for every 3.000 – 5.000 refugees. They are staffed by medical personnel with only limited training. They provide treatment for non-life threatening but widespread and debilitating diseases (e.g. scabies, conjunctivitis, small wounds). They act mainly as screening facilities for serious cases who should then be referred to the Health Centre. This level can sometimes treat a few diseases (e.g. diarrhoea, acute respiratory tract infections and malaria) but only uncomplicated cases.

### **Home visitors:**

Outreach programs are necessary to ensure optimal links between the health programs and the target population. Their role is also essential in data collection, active case finding with referral to health structures and health promotion. There should be one home visitor per 500-1.000 refugees.

**This guideline will focus on the second level of health care, without In-Patient facilities. This will be subsequently referred to as a dispensary.**

# 3. ACTIVITIES IN A DISPENSARY

## Triage

The aim of triage is to select those patients who need immediate medical attention and to prevent them from waiting for care in the various lines that exist in the dispensary. Triage should be done regularly in the waiting area **before** registration (for example 2 to 4 times per day). It should be done by an experienced medical person to ensure that severe cases are not overlooked (e.g. a dehydrated child carried on the back of the mother). The person doing it should give a special mark, like a red card, to these severely ill patients which will give them priority for registration, consultation and treatment. The red cards should then be collected by the person giving the treatment or making a referral to a higher center.

## Registration

The aim of the registration is to provide all patients with health cards. Basic information should be recorded on individual patients health cards. (annex 1 and ref. 1)

It is usually better, especially during the emergency phase, that patients keep their own cards instead of having them filed in the dispensary. If filing is done in the dispensary, it is preferable to do this in numerical order instead of alphabetical, to avoid congestion of the filing system with old, unused cards.

Beside the normal administrative information, other information like temperature, pulse, weight and MUAC can also be measured and registered here in order to decrease the workload during the consultations.

## Consultations

The aim of the consultation is to diagnose the most common diseases prevalent in the area, and to prescribe the appropriate treatment or to refer to a higher level of care for further investigation and/or emergency treatment.

Sufficient **privacy** must be guaranteed for the patients in the consultation rooms. There should be at least a visual separation between the patient being consulted and all other waiting patients to ensure a private physical exam. Ideally it should not be

possible for other patients to overhear discussions between patients and staff. This will help to reduce any existing barriers e.g. for patients with an STD or those asking for birth control.

## Diagnosis

A systematic approach to taking a history is vital to save time and reduce omissions. It should include the history of the present illness, past history, family history, current medications and allergies. Symptom or syndrome oriented **diagnostic and treatment flow charts** for the most common symptoms can be helpful for personnel with minimal training (ref. 2, 3, 4). Such charts prevent diagnoses being made without asking key questions or doing a proper physical examination. This will ensure that other pathologies are also considered (e.g. Fever => Malaria => Chloroquine: this line of thinking might allow signs of meningitis to be missed). Each flow chart has to be based on the local morbidity patterns, the level of training of the staff and the services which can be provided. Examples presented in annex 3 should be modified accordingly. Lines can be added for referral to a higher level of health care (additional treatment flow-charts for annex 3a and 3b can be found in ref. 4).

A routine **physical examination** should be part of the process of making the diagnosis. The patient should be undressed if possible and both general appearance and all systems should be examined. However, when the patient load is overwhelming, there is not always sufficient time to do so. Even then it is recommended that, especially for children, an examination is carried out. Important positive or negative findings should be recorded or drawn on the patient card. MUAC measurements of children under five should be done systematically in order to identify a possible nutritional problem and/or to refer malnourished children to a feeding centre.

The use of a **laboratory** at the dispensary level during the emergency phase is **not recommended**. Most diagnoses at this level can be made based on history and clinical findings. Particularly during the emergency phase, there can be constraints in terms of finding qualified lab-technicians, supply of equipment/material and limited time to do the examinations for all of the patients who would require this. These factors may lead to a reduction in accuracy and could therefore be counterproductive. There can however be an important **epidemiological use** for the laboratory in emergencies: to develop or to validate clinical and therapeutic protocols. One can investigate a sample of patients presenting with a particular clinical picture (symptoms and syndromes), specify the aetiology of that clinical picture and thus arrive at an appropriate standardised therapeutic management protocol.

## Prescription

In order to improve the rational use of drugs and to ensure uniform prescribing behaviour, standardised treatment protocols should be used.

**Clinical guidelines** (ref. 5 & 6) should be available to every consultant to allow him/her to check the diagnosis, treatment and dosages. The dosage of drugs for children should preferably be based on weight rather than age (annex 4).

To make treatment protocols, the existing clinical guidelines can be adapted taking

into account the national protocols or recommended drugs, local bacterial resistance patterns, level of competence of health staff, etc. When useful, treatment flow charts can be added (annex 3f). It is important to work with a limited list of essential drugs based on the educational level of the person doing the consultations and the type of services provided.

Some basic guidelines for prescriptions should include:

- Do not prescribe more than 2 different drugs per patient.
- Analgesics no longer than 2 or 3 days.
- Antibiotics at least 5 or 7 days; when no improvement, return after 2 days.
- Injections only when drugs can't be given orally.

If a patient has more than one disease for which more drugs would be required, it is best to treat only the most important disease and to ask the patient to come back for the treatment of the remaining illnesses when the first one has improved. It may be tempting to give all the drugs for the different diseases at once, particularly in situations where patients have to walk several hours to reach the dispensary. However, patient compliance drops significantly when more than 2 drugs are given. See also chapter 8, rational prescription and drug use.

## Registration in consultation book

The aim of registration is to get an impression of the daily work load, to allow for surveillance of diseases and to plan epidemiological investigations for which more detailed information is required (e.g. mapping of the cases). See annex 5 for an example of this registration. It can also be used to supervise the work of the person doing consultations by observing whether or not treatment protocols are being followed and to evaluate prescription behaviour (see chapter 8, Evaluation).

## Referral

The aim of a referral system is to select and transfer patients who can not be treated in the dispensary, because:

- the disease of patient is beyond the competence of the health worker,
- the technical level necessary for diagnosis is not available in the dispensary,
- the specific treatment is not available in the dispensary.

Possibilities for referral will depend on the health facilities available in the camp, the health structures in the host country and the qualifications of the staff present in those health facilities. Several levels for referral from the dispensary can be distinguished:

### 1 • referral to a doctor in the dispensary:

When present, a doctor can be consulted in case the health worker is not sure of his/her diagnosis, the proposed treatment or the possible need for referral. When a doctor is visiting at fixed times or days, the patient can be asked to wait or to return accordingly.



## **2• referral to other health programs in the refugee camp:**

This can include feeding centres, cholera treatment centres, mental health programs, etc.

## **3• referral to a hospital in the refugee camp:**

If there is a hospital or inpatient facility in the camp, a patient should be observed or admitted here for specific treatment not available in the dispensary (infusion, parenteral medication, naso-gastric tubes, etc.).

## **4. referral to a hospital outside the refugee camp:**

Reasons for external referral can include any surgical or obstetrical emergencies, transfusion, additional diagnostic investigations, etc. A list of referral criteria should be made, adapted to the level of care provided in the camp and the possibilities of the referral structure.

Two types of referral can be identified:

1°/ emergency interventions and 2°/ elective interventions.

The referral for both groups of patients to an external structure should be well organised to avoid problems with the referral hospital. The possibilities and limitations should be discussed and basic criteria for referrals, both for emergencies as well as for elective patients, should be agreed upon. Referral criteria can be influenced by capacity constraints of the referral hospital and by financial arrangements that sometimes need to be made with these hospitals.

The procedure for the referral itself should also be well prepared and agreed upon. For example, each patient should have an «official» referral form on which some basic information is written for the hospital (annex 6). A registration book with information of all referred patients should be kept.

It is recommended to have a system by which feedback is received from the referral hospital. The hospital discharge section on the referral form can be used for this. A doctor working in the camp should visit the hospital regularly to get a better understanding of the quality and capacity of the referral hospital which will improve the working relationship with this hospital. The information thus and gathered should be discussed with the persons who were responsible for the referrals in the dispensaries.

The external referral system implies the presence of an ambulance to bring the patients to the hospital at least once a day and to bring back those patients who have completed their treatment.

## Therapeutic services

The aim of therapeutic services in the dispensary is to provide services such as first aid, the dispensing of oral drugs, injections, oral rehydration treatment, and wound dressing.

After consultation, the patient should receive the treatment as prescribed with a clear explanation of how to follow and complete the treatment.

### First medical aid

Emergency cases, including those requiring referral, should be first to receive medical attention in the dispensary. This will include an initial evaluation of the patient's clinical status, first aid and/or preparation of the patient for transport. This may include giving the first parenteral medication or intravenous fluids. An emergency service should be organised for severely ill cases outside the usual working hours of the dispensary. First aid may be provided in the dispensary or in the camp hospital depending on the organisation of the health system.

### Oral drugs

Oral drugs are given in the pharmacy. A good explanation should be given of how, when and for how long the different drugs dispensed should be taken. The patient should always be asked and able to correctly repeat the instructions given.

- In case of a mono-dose treatment, the drugs should be taken on the spot under supervision. In other cases, the first dose can also be given on the spot.

### Injections

Injections are given in the injection room according to the prescription. Clear instructions in the form of procedure lists (techniques of disinfecting and injecting) should be available (annex 7) for training, supervision and evaluation purposes.

- It is easier and more practical for the injection room to have its own limited stock (e.g. for 1 week) of injectable drugs, needles, syringes and disinfectants. This should be stored and locked e.g. in a metal case. The orders for new material is made weekly to the medical store (annex 8).

- In order to guarantee that precautions are taken against HIV transmission, one has to guarantee the availability and correct use of disposable material in emergency situations. There should be special containers for the safe disposal of needles which should be incinerated when full.

- Registration of the injections is valuable to get an idea of the workload of the service, to check consumption but most of all to evaluate the compliance of the patients (annex 9).

### Dressing

The aim of the dressing-room is to give treatment and follow-up of skin infections, including scabies, superficial wounds, and to perform ear- and eye washing. Minor

surgical procedures (abscess incision, suturing) are not recommended at the level of the dispensary during the emergency phase. An exception can be made when there is a doctor available who has the time to do it.

- The initial treatment of the wound should be prescribed by the person doing the consultations, including the possible supportive treatment with antibiotics e.g. in case of infected wounds with systemic symptoms.
- It is useful to make protocols for dressing procedures. They can be used for supervision and training purposes (annex 10).
- The dressing room should have its own stock and order procedure as in the injection room (annex 11).
- A simple registration system is useful to indicate the workload of the dressing room (annex 12).
- Hygiene must be guaranteed by using gloves and washing hands.

## Sterilisation

During the emergency phase, it is recommended that only disposable needles and syringes be used. Instruments that have come in contact with mucous membranes or have become soiled with pus, blood, lymphatic or vaginal excretions, need to be sterilised or subjected to a high level of disinfection. Before sterilisation, instruments can be soaked in clean water to prevent deposits from drying up before being decontaminated and cleaned with water and soap (see reference 7).

Autoclaving (sterilisation by steam under pressure) is the most reliable sterilisation method. Second best options are boiling or immersion in 'high level' disinfectants.

Assessment of the sterilisation procedures by the person responsible for this task can be done with a sterilisation procedure list as for injections and dressings (annex 13). This can also be used for training purposes.

## Oral Rehydration Treatment (ORT)

Dehydrated patients and all patients with diarrhoeal diseases are to be referred to the ORT corner by the person doing the consultations with a «rehydration follow up form» (annex 14).

- The person who made the referral remains responsible for the patient: (s)he has to check the patient on request by the person responsible for the ORT corner and decides when it is appropriate to discharge or refer the patient.
- Diagnosis and treatment of dehydrated patients should be done according to the WHO protocols (see ref. 5)
- Patients who are not dehydrated but who have diarrhoea should be referred to the ORT corner to receive instructions for the preparation of the Oral Rehydration Solution at home and for health education.
- The ORT corner should have its own stock and order procedure as for the injection room (annex 15).

- Registration in the ORT corner is useful for knowing the workload but most of all to evaluate the functioning of the ORT corner (annex 16).
- The rehydration corner can also be used to sponge patients with high fever in order to lower their temperature.

## Preventative activities

### Individual health education

The consultation and treatment rooms can be used to give adequate individual health education directly related to the disease of the patient. For example, the person responsible in the ORT corner should give health education concerning diarrhoea and how to prepare the ORS at home. Health education posters are advisable (WHO, UNICEF, etc.).

### Measles immunisation

Fixed measles immunisation posts should be established in the dispensaries as a complement to a mass immunisation campaign. All children between 6 months and 12 to 15 years of age should have a proof of receiving measles vaccine (ref. <sup>8</sup>). Caretakers need to be informed that when they visit the dispensary with their children, they should always carry the vaccination cards with them. The vaccination card should be checked at the registration and at the consultation. When measles vaccination has not occurred or when a booster is required, children should be sent to the immunisation post (a booster is required for children first immunised between 6 and 9 months of age and now older than 9 months). There is no contra-indication for the measles vaccine. See annex 17 for registration of measles vaccinations.

### Other immunisations during the emergency phase

In case of outbreaks of immunisable disease during the emergency phase like yellow fever or meningitis, the fixed immunisation post in the dispensary should also be used as a complement to mass immunisation campaigns against these diseases. A similar form as for measles vaccinations (annex 17) can be used for registration of the vaccinations given.

### Other preventive programs

It is not recommended to implement other preventive health programs in the dispensary during the emergency phase. However, as soon as the emergency phase is over and the dispensary is well organised, programs like the Expanded Program of Immunisation and Reproductive Health programs (Family Planning, Ante Natal Care, etc.) should be integrated in the services of the dispensary.

## 4. PATIENT FLOW AND LAY-OUT OF DISPENSARY

The dispensary will start with minimal services in the emergency phase: consultations, a pharmacy, an ORT unit, injection and dressing. Space for latrines, water supply and the incineration of (medical) waste should be taken into account.

The area around the dispensary needs to be fenced. It is essential to foresee from the beginning a possible growth of the dispensary with additional services. This means that the area assigned to the dispensary should be larger (minimum 40 metres x 70 metres) than that which is initially required. In the post-emergency phase, the dispensary can become quite a large structure. It may later be necessary to provide an observation room, separate areas for consulting for adults and children, further rooms for additional programs such as Expanded Program of Immunisation, Ante Natal Care, Family Planning, AIDS and STD programs, etc...

When there is sufficient time for the planning of the camp before the arrival of the refugees, the dispensary should be built at a central location for optimal accessibility. When the camp is already established and the central area is overcrowded, it is better to build the dispensary just outside the camp. Building it close to the general distribution area should be avoided and easy access for the ambulance or supply vehicles should be guaranteed. For an example of the lay-out of a simple dispensary, see annex 18.

### Patient flow

A well organised patient flow is essential to create optimal conditions for the functioning of the dispensary (see patient flow lines in annex 18). The basic principle is to ensure that there is a one way direction in the movement of the patients within the dispensary and to avoid having too many people inside at one time. Sheltered waiting areas outside and inside the dispensary are required, both to protect people from the sun or the rain and to prevent people from walking around. Failure to organise this properly will lead to an overcrowded dispensary, people not knowing where to go and stressed staff.

Another effective way to improve the patient flow is to select out those patients who only come for follow up treatment (like repeated dressings or injections) in the waiting area before registration, and send them directly to the appropriate services. They can receive a distinguishing mark on their patient card to make them easily recognisable for the person doing the registration or the crowd controllers who are responsible in maintaining the patient flow.

## Water

Drinking water must be available for patients in the various waiting areas, in the pharmacy and in the ORT corner. Washing basins and soap must be available in the consultation, dressing and injection rooms and in the ORT corner.

The total amount of water required per day in the dispensary can be estimated by calculating a minimum of 5 litres of drinking water per patient coming for consultation (ref. 9). It could be supplied via a water network, water trucks or hand carried to the dispensary in jerrycans. It can be stored in a water bladder, a tank, jerrycans, etc. This water should be kept for the use of the dispensary only and put under the responsibility of a guard (who can also carry the water to the different services within the dispensary).

## Drainage

An effective water drainage of the grounds where the dispensary is located is sometimes overlooked with disastrous consequences (flooding) during the rainy season. There should also be an effective drainage system for used water (water tap points, drainage of the water used to clean the floors, etc.).

## Latrines

Two separate latrines are required. One with at least 4 holes for the patients, 2 for men and 2 for women. The other with separate holes for male and female staff. Both should be separated from the patient flow. A water point should be present for washing hands after having used the latrines. The crowd controllers can assist to supervise this.

## Waste disposal

Garbage bins should be present in all rooms of the dispensary. Special attention needs to be given to the disposal of needles and other sharps by providing special containers. The medical waste must be separated from domestic waste and securely disposed of: initially it can be buried in a pit and burned with kerosene. A simple incinerator can be provided or constructed later.

## Hygiene

Cleaners should be responsible for hygiene in and around the dispensary, for the disposal of waste and for the cleaning of the water supply points and latrines. They are also responsible for the washing of the clothes and sheets. All staff who have direct contact with the patients should have facilities to wash their hands.

## Security and crowd control

Crowd control is essential for maintaining the patient flow and keeping the dispensary orderly. The patients should be guided by fencing from the entry to the waiting area and to the consultation and treatment areas. Crowd controllers should be posted in all places with possible movement of patients: the entry, the waiting area, the entry to the consultation, the pharmacy, etc. They have to keep order in the waiting lines and show patients where to go. They need to send those people away who are not there either for treatment or to accompany a sick relative.

Guards are required for 24-hour security. The day guards can also function as crowd controllers. There should be at least 2 night guards and special attention should be given to guarding the pharmacy and the stocks. Guards, patients and/or visitors or anyone are not allowed to carry fire arms in the dispensary.

# 5. HUMAN RESOURCES MANAGEMENT

The objective of human resources management (HRM) is to provide staff capable of performing the different tasks involved in the functioning and efficient organisation of the dispensary (ref. 10).

## Estimation of staff requirements

The estimation of the number of staff (and their qualifications) needed to run a dispensary is based on the type of services and the required capacity. The selection of the type of services should always include the priorities as mentioned earlier. The estimate of the required capacity will depend on the size of the target population, whether they are living in an 'open' or camp situation and their health status. In an average camp, it is estimated that each person will visit a dispensary for consultation approximately 4 times per year (Consultations Per Person Per year: CPPPY). When there are severe health problems, this can be up to 10 CPPPY and in an open situation approximately 1 CPPPY.

When starting up a dispensary, the number of staff is usually not sufficient because it takes time to find and train them. Starting new activities in the post-emergency phase requires additional staff. Therefore, there is a difference between the staff required at a given moment and the staff required based on future planning. The planned number of staff might also need to be adapted when the circumstances change e.g. when an outbreak occurs or when the case load decreases due to improving health status of the refugee population. Annex 18 can be used to make a more detailed estimation of what is required based on the planned services for a specific situation. An example is given of a dispensary for 10.000 refugees which provides only the basic services with a consultation capacity of 4 CPPPY (= 770 consultations expected per week). See annex 20 for an organigram:

- 1 person for registration (2 when temperature, weight and MUAC are also measured)
- 4 persons doing consultations (this includes 1 for emergency service at night and 1 off duty at any given time).
- 1 person for injection, wound dressing and sterilisation.
- 1 person responsible for the ORT corner.
- 2 persons responsible for the pharmacy (1 dispensing drugs and 1 assistant).
- 2 persons responsible for the hygiene, water, sanitation and cleaning.
- 7 persons for crowd control, day and night guards.



In a «small» dispensary, certain responsibilities and tasks can be combined under one person: e.g. the dispensary manager is also involved in doing the consultations, one of the guards can act as a technical or logistics manager. If the workload increases, the responsibilities and tasks need to be divided among more persons accordingly.

A person doing consultations should not see more than 50 patients per day. The quality of the consultations will decrease considerably if more patients are being seen per day. This should only be accepted during the emergency phase when qualified medical staff are difficult to recruit or when the patient load is simply too high.

If an Inpatient unit of 20 beds were to be added, 4 persons responsible for the day and night duty (each 8 hours and 1 off duty) and 1 nursing supervisor are required. A medical doctor should supervise the unit at least once per day. It is obligatory to have highly qualified staff available for emergencies.

If MCH programs and deliveries are to be added to the services in the dispensary during the post emergency phase, then additional staff including a midwife would be required.

## Recruitment and qualifications

A census of medically trained and otherwise educated staff among refugees should be done through the refugee leaders. Diplomas can not always be presented and where refugees are concerned, they are not always acknowledged by the host country. Particularly for higher qualified staff, personal interviews and testing of qualifications is mandatory.

When recruiting staff, the cultural background of the refugees needs to be taken into account. When staff is recruited from outside the refugee population, possible problems such as ethnic differences and logistical problems like transport and accommodation should also be considered.

Initially the estimation of staff requirements is based on the services to be provided and the target population. When the number of trained staff available is insufficient, priorities should be decided upon: for example triage, consultations, pharmacy and ORT. Other tasks such as injection and dressing should be standardised as soon as possible and taught on the spot to non-medically trained staff. One should avoid the hiring of under-qualified staff for qualified positions, for example to do consultations. Training and supervision possibilities in the emergency phase are limited. Selection of staff should be based on their anticipated job description.

Other educated persons among refugees can be used for tasks like registration, assisting in campaigns and home visiting. For most matters related to staff requirements, it is essential to establish and maintain good contacts with refugee leaders.

## Staff policy

A standard staff policy must be defined and formalised. This should include salaries, job descriptions, working hours, holidays, maternity leave, other material benefits as well as warning and dismissal procedures.

The staff policy should always respect the **labour laws** of the host country. The NGO administrator should be well aware of these laws to avoid problems such as court cases over improper staff dismissal.

**Payment** should be based on the qualification and experience of the person. The salary scales should be decided on by the project administrator and standardised within the organisation. It is strongly recommended that this is done in co-operation with other relief organisations, with the UNHCR and the Ministry of Health. This will avoid large discrepancies between the organisations and with the national health institutions, that could lead to a «staff drain» towards the best paying organisation. At the beginning, contracts should be made for short periods to allow for a selection of the best workers and flexibility if needs for staff change. During the installation of the dispensary, staff can be recruited and paid daily, weekly or monthly according to needs.

When recruiting staff from among the refugees, it is not always possible to give them a contract due to their legal status. This can be solved by hiring them as volunteers and giving them «incentives».

Each person hired should have an individual job description. If possible, after the emergency phase there should be an individual job performance evaluation done by the supervisor or dispensary manager every 6 months. The findings should be put on paper. These evaluations can also be used to update the job descriptions.

It is essential to make a list of the tasks to be done daily and weekly and to divide them between the workers. A **working schedule** for all staff should then be made, including weekend and night duties. Possible replacement in case of illness should be foreseen.

The routine management of the staff includes keeping **attendance and absence lists**, setting regular dates and times for meetings with the staff, and supervising the staff in their work.

It is also important to establish a **health policy** for the national staff. Adequate working conditions should be provided to avoid staff from «burning out» providing breaks and limitation of working hours. The health policy should include information for the staff telling them what they are entitled to when they, or their relatives, fall ill.

All preventive precautions need to be taken to ensure a **healthy working environment** that will prevent the transmission of diseases from the patients to the staff. When vaccination campaigns are done, be sure to include (or start with) the staff of the dispensary.

A **friendly and positive attitude** by the staff towards the patients is valuable for the acceptability of the dispensary and the compliance of the patients.

## Job descriptions and job profiles

In chapter 12, various job descriptions and profiles are given for the personnel required to run a dispensary. Depending on the case load it is sometimes possible to combine some of these functions in one person or separate them for two. The following types of staff are included:

- Dispensary manager
- Person responsible for the medical and logistical stock
- Person doing registration
- Person doing the consultations
- Person doing triage
- Person giving injections
- Person doing wound dressing
- Person doing the sterilisation
- Person responsible for ORT
- Person responsible for the pharmacy
- Logistics manager
- Person responsible for hygiene/sanitation/water/cleaning
- Guard/crowd control

## Supervision

The aim of supervision is to promote continuous improvement in the performance of health workers (ref. <sup>11</sup>). It is based on 4 major factors on which performance essentially depends:

- 1- Making sure that objectives are appropriate,
- 2- Making sure that the staff adapt to difficulties encountered,
- 3- The development of staff motivation and
- 4- Helping staff to improve their performance and competence.

Supervision includes monitoring, training, support and evaluation. The style of supervision, which can be described as either autocratic, anarchic or democratic, will need to be chosen according to what suits a situation best.

There are 3 steps in the supervision cycle:

### 1• Preparation:

- Study of documents: the planning documents, job descriptions, organigram, progress reports, evaluations reports and previous supervision reports.
- Identification of priorities: identify discrepancies between planned targets and norms and the level of performance reported or assessed (e.g. by referring to previous performance and activity assessment check lists).

- Making a supervision schedule: determine how often and for how long supervision visits can be made.

### **2• Implementation:**

- Establishment of contacts with the health workers and community representatives.
- Review of the objectives, targets and established norms with the health worker(s).
- Observation of the health workers carrying out their tasks.
- Identification of gaps and needs for follow up (e.g. using performance check lists).
- Consultation with community representatives.
- Reporting of findings to the health worker(s).

### **3• Follow up:**

- The supervisor and the health worker(s) clarify the objectives and targets of the program.
- Organisation, together with the health worker(s), for a program of training activities.
- Reorganisation, together with the health worker(s), of the working schedule as needed.
- Making changes in the logistic support if needed.
- Writing and distribution of a final report.

## **Training of staff**

Training is necessary when there is a discrepancy between the observed level of competence of a given category of staff and the required level to perform a specific job due to a lack of knowledge (ref. 12).

Before opening the dispensary, all staff should be assessed. It is better to wait a few days before opening a dispensary in order to train the staff if necessary than to open it with untrained personnel and then try to improve the situation while the dispensary is overloaded with patients.

Each category of staff should be trained according to the tasks defined in their job description. Any training should be preceded by a training needs assessment. This can either be done individually, by observation of and discussion with the health worker, as well as for a group, using assessment and evaluation studies (see chapter 9). A good regular supervision system and possibly a continuing education system should be put in place after any training.

Training can be given individually (on the spot training) but also to groups or categories of workers (workshops). This can be particularly helpful when new procedures are to be introduced in several dispensaries or when evaluation studies indicate common problems. Depending on the subject of the training, a specific training methodology should be selected (lecture, discussion, role play, practising, etc.).

With regard to nursing procedures, each practical task (to take vitals signs, give injections, do wound dressing, or prepare antiseptic solution etc.) should be taught using a procedure list. They can also be used to assess if the person performs the tasks properly or not. Each step in the procedure will be given points if done correctly. The acceptable level of performance should be at least 75% of the highest mark for each

procedure to allow people to perform it. Practical simulation sessions should be organised with no more than 10 students per teacher to teach practical skills (personnel should not be allowed to do injections if they cannot read a prescription or the graduation on the syringe). Examples of procedure lists and performance check lists can be found in annex 2, 7, 10 and 13.

With regard to medical work, making diagnoses, prescription of treatment and referral of patients, it is essential to hire personnel with the highest level of medical training possible. It is not possible to train «doctors» in a few days or weeks. For training, it is essential to select a list of the most common diseases seen in the area and to review (or teach) the key points regarding history, physical examination and treatment.

If the personnel is not highly qualified, it may also be useful to train them in the use of diagnostic flow charts for the most common symptoms and clinical signs. In this case, it is important to make sure that the person doing consultations is aware of his/her limitations and to encourage him/her to refer patients when a case is beyond his/her level of competence (can be included in the flow-chart). Intensive practical bedside teaching should also be organised when health workers start their jobs.

# 6. MANAGEMENT OF DRUGS, MEDICAL AND NON MEDICAL STOCKS

The aim is to ensure that the health structures are supplied in a standardised and well organised way with sufficient and appropriate drugs and medical material in order to provide patients with adequate treatment. The most important part of drug management is to ensure that patients know how to take their drugs (for how long and how often).

There are several levels which can be distinguished in the management of drugs:

- 1- An international supplier of drugs (with Good Manufacturing Practices certificate e.g. IDA)
- 2- Sometimes a central warehouse in the capital of the country which acts as a transit warehouse from which the projects are being supplied.
- 3- A central medical store in the project area from which all medical programs are being supplied.
- 4- A medical stock in the medical facility (dispensary, therapeutic feeding centre, etc.)
- 5- A pharmacy where the patients receive the drugs.

Ordering systems between these levels need to be organised as soon as possible. This chapter will only provide information on how to organise levels 4 and 5 and give indications of what kind of information is required for the third level to be able to manage the drugs.

Organisation and rigorous management of the medical stock and pharmacy (point where drugs are dispensed to the patients) are vital in all health structures, particularly when the resources are limited. Good monitoring of the flow of the drugs is important in order to minimise losses and to avoid stock shortages, both in the dispensary and in the central medical stores. It is therefore very important to invest some extra time in basic administration to have it well organised **from the very beginning**, when the dispensary is being set up. For a drugs flow chart and its registration, see annex 21.

## Setting a drug policy

A drug policy addresses the following issues (ref. 13): estimation of the expected needs of the target population, establishing a drug list, guidelines for safe and proper

use of drugs, quality assurance of the drugs, efficient administration, supply, storage distribution, monitoring and evaluation.

A limited list of essential drugs and medical materials should be decided upon. This list will depend on the qualifications of the medical staff and the level of the medical care that will be provided. In principle the choice of drugs on the list is a selection from the content of the New Emergency Health Kit (NEHK, ref. 14). Management will be made easier by limiting the number of items which need to be supplied. Drugs must be listed under their International Non-proprietary Names (INN).

## Estimating drug requirements

Various methods are described in the literature on how to make estimations of drug requirements based on morbidity or consumption data (ref. 15). In emergency situations, the New Emergency Health Kit provides a rapid response to the medical needs, both qualitatively and quantitatively.

The kit is intended to supply the drugs and material needed to cater for the health needs of a population of 10,000 people for 3 months. It is based on a number of peripheral health posts, providing basic care with a very limited drug list (see content basic kit NEHK), and a central health facility. The patient load is estimated at 4 visits per person per year with a 10% referral rate. By its nature, a kit will have limitations and discrepancies which can result in shortages of certain drugs and an excess of others.

It is therefore **essential to establish a consumption monitoring system** with which the actual consumption in the dispensaries can be calculated. The actual consumption should be evaluated **by the end of the first month**. Future orders should be based on this calculation, so that it is **no longer necessary to order kits** (which are more expensive). When making such an order, it has to be kept in mind that the order needs to be corrected for a possible growth of the program and therefore a possible increase in consumption after the first month.

In cases when there is a disease present known to be resistant to the drugs available in the NEHK or for which the recommended drugs are not present in the NEHK, additional drugs need to be ordered (e.g. Ciprofloxacin for the treatment of *Shigella Dysenteriae* Type 1 only sensitive to it, or specific drugs for the management of Sexually Transmitted Diseases).

## Estimating requirements for medical instruments

The NEHK has a sufficient supply of medical instruments for one person doing consultations. For each additional person doing consultations, extra examination materials (ref. 16) need to be ordered. It can be useful to order some additional instruments which can be supplied in kit form, e.g. instruments for suturing or for deliveries (ref. 17). It is practical to assign the responsibility for the instruments to the persons working with them.

## Medical stock in the dispensary

For more detailed information regarding the organisation of a medical stock and pharmacy, see reference 5 and 6, part 2.

Solid constructions are rarely found on a dispensary site. At the very beginning of the intervention, the medical stock can be located in a tent, if the stock levels are kept low and it is supplied regularly from the central medical stock. When tents are being used, the presence of guards, during the day and night, should guarantee the safety of the drugs. Often, storage conditions (heat, cold, humidity) are not ideal. As soon as possible the conditions of storage should be improved.

One person in the dispensary should be made responsible for and have access to the medical stock. This is usually the dispensary manager. (S)he supplies the pharmacy and other services and is responsible for making orders to the central medical stock.

•The **layout** of the medical stock and the **arrangement of the drugs** are important for good management. The stock area should be big enough so that all items can be placed in one room and be put on shelves (not left in the boxes in which they were received). The labels should be clearly visible in front. If there are items with different expiring dates, the ones which expire first should be in front. The arrangement of the items should be according to the following categories:

- Oral drugs
- Injectable drugs
- Topical drugs and disinfectants
- Medical material
- Infusions

Each category should be clearly separated from the others and all items within each category should be in alphabetical order.

•The **stock-card** is the main instrument for stock-control in the medical stock. Stock cards are not (yet) in the NEHK, so **they should be ordered separately** (annex 22 and ref. 1). For each item (drugs and materials), a stock-card is made and regularly updated, always by the same person. The amounts are always recorded in units and never by box. These cards allow one to:

- Identify all of the movements of the stock, in or out.
- Determine the stock level available at any time.
- Define the theoretical minimal stock level to be available at any time.
- Monitor the consumption of the different services (pharmacy, injection, etc.).
- Estimate what and how much should be ordered from the central medical stock.
- Assess what and how much has been lost.

•The medical stock should have a **safety stock** to be able to compensate for sudden increases in consumption or delays in delivery. This can be estimated by taking half of the quantities required for the period between two deliveries. (e.g. if orders are made every month, the safety stock quantity per item would be equal to the quantity required for two weeks).



• **Inventory / stock check:** Should be done for **all items** in the medical stock on a regular basis by the supervisor, together with the responsible person for the medical stock (if possible once per month). A good time to do so is when a new order for the dispensary needs to be made. The information about the stock level and consumption is part of the order form which is sent to the central medical stock (annex 22). An inventory also permits one to check the expiry dates.

• **Preparing the order for the medical stock:** Initially, the medical stock can contain a limited supply: e.g. only the supplementary unit and 3 basic units from the NEHK (the remaining 7 basic unit boxes should remain in the central medical store for the opening of the health posts). One should ensure that the medical stock area is large enough and secure enough to receive these supplies. Even in the initial stage, the medical stock should be supplied no more than once per week. Once consumption patterns can be calculated from the stock cards, the supplies can be delivered less frequently, eventually monthly. It can often be seen that drug consumption rates in the early stages are relatively low because the dispensary may not have reached its full capacity. When preparing an order, the consumption can be related to the number of patients treated and then corrected for the expected number of patients to be treated in the coming month.

• It is important to have **pre-printed order forms** (annex 23). The order form should include the same categories mentioned when describing the arrangement of the items in the medical stock (above). Two copies of the order form need to be made: one should remain in the medical stock area in the dispensary, the other is to be sent to the supplier (central medical store).

• **The calculation for the amount to be ordered** has to take into account the consumption, the delivery time to the dispensary (safety stock) and the remaining amount still in stock:

Amount to order = Consumption in between supplies + the safety stock – the amount in stock on the day the order is made.

*Example* (Order frequency once per month):

- Total consumption of Ampicilline during the previous month = 10.000 tabs,
- safety stock is then 5.000 tabs,
- remaining quantity of Ampicilline in stock at time of making the order is 6.000 tabs.
- Amount to order is  $10.000 + 5.000 - 6.000 = 9.000$  tabs.

• **Receipt of the order in the dispensary:** The order should be accompanied by a copy of a waybill (the number of boxes) and a packing list (contents of each boxes and total). The packing list is actually a copy of the original order form with the quantities supplied filled in (annex 23). On receipt, the number of boxes, their contents and their expiry dates, should be checked immediately. The way-bill is sent back to the central medical store. The packing list remains with the original order form in the dispensary. In case of a discrepancy between the packing list and the actual content of a box delivered, the central medical store needs to be informed for further investigation. All items are placed directly in the medical stock area on the shelves and noted on the stock cards.

## Internal distribution within the dispensary

An internal order/supply system must be arranged between the medical stock and the various services: the pharmacy, the ORT corner, the dressing room and injection room.

Each service will make its order with an order form which should be signed both by the person placing the order as well as the person responsible for the medical stock. When items are being supplied from the medical stock, the stock cards should be adjusted accordingly.

Each service should keep its own administration of its stocks (see annex 8, 11, 15 and 25). This form should include all renewable items used by that service.

## The logistical stock

When setting up a dispensary, it is useful to order one or two dispensary kits (ref <sup>18</sup>), depending on the local availability of the kit's contents. A list of the various non-medical materials needed to set up and run a dispensary can be found in annex 24. It is difficult to know the quantities required as it will depend very much on the type of dispensary.

It is recommended to make inventory lists for the supplies in each room of the dispensary; this should make the people working in these rooms more responsible for the supplies. One should have a good stock of commonly used items in the central store in order to be able to deliver them quickly to the dispensaries. The inventory list can easily be transformed into an order list. In principle, the stock keeping for the non-medical items is similar to that of the medical stock.

## The pharmacy

In general, one person should be responsible for the pharmacy. In case of a high workload, the work can be shared with an assistant who can do the administrative tasks. This person should NEVER be the same as the one responsible for the medical stock. The pharmacy stock should be kept in the pharmacy in a safe place that can be locked.

**Dispensing the drugs to the patients:** The drugs should be put in a clean bag, using a spoon or gloves to avoid contact with the hands. On the bag the following information should be written: name of the patient, drug, dosage and frequency of administration. A good explanation should be given as to how and when to take what. **The patient should always be asked to repeat the instructions.** In case of a mono-dose treatment, the drugs should be taken on the spot under supervision.

**Registration of the quantities of drugs dispensed in the pharmacy.** The first step in the administration of the pharmacy is to keep a record of the drugs dispensed. The simplest way to do so is to write down the:

- Date
- Various drugs, in columns or rows
- Quantity of each drug given per patient.
- The total daily consumption should be calculated and a weekly report should be made by the person responsible for the pharmacy (see annex 25).

**The request by/supply to the pharmacy.** The request is made to the person responsible for the medical stock. The following suggestions are offered:

- The pharmacy should use a request book.
- The pharmacy should order regularly every 2 to 3 days (not only when an item is out of stock).
- The request should be checked by the person responsible for the medical stock.
- The order written in the request book should be signed by both persons involved (pharmacy and medical stock) when it is given/received.
- The person responsible for the medical stock should fill in the stock cards at the same time: date, quantity out, destination and balance.

## Accountability

Accountability for the drugs supplied is usually an important issue in the supervision of a dispensary. Discrepancies between what should be present and what is actually in stock or in the pharmacy are common. This can either be due to registration errors or to losses. The former can be reduced by having the necessary management tools for all the levels involved in the drug flow, and by training of the staff. Losses can be accepted if they stay within limits (less than 10%). For this, at least minimal monitoring is required. The inventory of the medical stock is part of this. Other parts of the drug flow are less easy to monitor and can be time consuming if done too thoroughly. This can also have a demotivating impact on the staff who may feel mistrusted. A suggestion is to select a limited number of drugs (3-5) once per month and follow their flow through the dispensary. It is recommended to select these drugs which are either most used, most popular or the most expensive.

For each of the selected items, one can compare over a period of 1 week:

- the quantities prescribed (consultation registration book)
- the quantities issued by the medical stock in total and to each service (stock cards)
- the quantities used or dispensed by the different services (order forms injection room, dressing room and ORT corner, the weekly report of the pharmacy).

Significant discrepancies can then be traced to the responsible service and person.

A rough and quick check can be made by comparing the number of patients treated for a certain disease (morbidity surveillance form) multiplied by the average amount of a drug prescribed for this disease compared to the consumption of the drug in the pharmacy.

# 7. EPIDEMIOLOGICAL SURVEILLANCE IN THE DISPENSARY

The aim of a health information system is to provide information on a regular basis for use in epidemiological surveillance and operational decision making.

## Data collection

The health care facility plays a key role in morbidity surveillance, an essential tool in monitoring and managing a health program during the emergency phase (ref. <sup>19</sup>). To facilitate data processing and making graphs, a new program has been developed: EpiSurv Emergency (ref. <sup>20</sup>).

Since data collection takes time, one should carefully consider the amount of time required to collect various types of data. Only data that will be used in decision making should be collected. The most important requirements for morbidity surveillance as carried out in the dispensary are:

**Standardised forms made for daily, weekly and/or monthly morbidity registration.** Categories of diseases under surveillance are those important for strategic decisions (annex 26 and 27, ref 18). Two categories of diseases should be covered in the selection of diseases to be monitored:

- 1) the common diseases, responsible for a significant proportion of mortality such as diarrhoea, malaria, acute respiratory tract infections, etc.
- 2) potential epidemic diseases such as measles, meningitis, cholera, etc., which can be associated with high mortality and for which control measures exist.

**Case definitions** for various diseases. Clear simple case definitions are essential for surveillance in emergencies. Some examples are given in annex 28.

**Only one diagnosis should be marked on the surveillance form per patient:** it should be the **most important problem**.

During the emergency phase **all cases are to be considered as «new cases»**, even if a patient comes back within one month with the same complaint. Additional columns for repeat visits can be added to the morbidity forms if, after the emergency phase, it is desirable to make a distinction between new cases and repeat visits, i.e. to get an impression of the effectiveness of the first line treatments prescribed. (If such a distinction is made, it should be noted that if, from that moment on, only the new cases are reported in the incidence surveillance, the incidence will appear to decrease, since «old» cases were previously included in the «new cases» category. Direct comparison with data from previous weeks cannot be made.)

An age division only between « < 5 years» and «≥ 5 years».

No distinction made between «male» and «female».

Compilation of the daily forms on a weekly or monthly form. This is usually done by the dispensary manager.

## Data analysis

To be done on a weekly basis during the first phase of an emergency and on a daily basis during an epidemic. In the post-emergency phase, the frequency could be reduced to once a month. When a change is made to monthly reporting, it should be noted that one cannot simply add up 4 or 5 weekly reports. The person responsible and other staff involved should change recording from a weekly basis (Monday to Sunday) to dates (first day of the month until last day of the month).

### Incidence rates

Incidence rates of diseases under surveillance are important to detect and follow up outbreaks. They should be reported on weekly graphs (ref. 14). They also allow for comparison of the health situation of different populations. To be meaningful, the same case definition should be used from the beginning to the end of the surveillance. Incidence rates can be affected by inaccurately recorded movements of the target population or with improvement in the quality of demographic data.

It should not be forgotten to give copies of the graphs with explanations to the staff working in the dispensaries. It is stimulating for those collecting the raw data to get feedback on their work.

- All ages (disease specific) weekly incidence rate:

$$\frac{\text{total number of specific disease cases all ages in a 7 day period}}{\text{total population}} \times 1.000$$

- Under 5 (disease specific) weekly incidence rate:

$$\frac{\text{total number of specific disease cases U5 in a 7 day period}}{\text{total U5 population}} \times 1.000$$

### Attack rates

Attack rates are incidence rates specifically used to describe outbreaks. They are calculated over the period of the outbreak and actually represent the risk an individual has of getting the disease during the outbreak.

- Attack rate (or cumulative epidemic incidence rate):

$$\frac{\text{number of disease cases since onset of the epidemic}}{\text{population at risk of the disease}} \times 1.000$$

## Absolute number of new cases

The absolute numbers of new cases allow one to classify the diseases by absolute frequency, to make priorities and to adapt the capacity of the services if necessary.

## Proportion of disease categories

When population figures are not available, it is possible to calculate the proportions of the diseases by dividing the number of cases of a specific disease by the patient population (= total cases presented during the same week). Proportions are expressed in percentages.

**NB:** From both absolute numbers of cases and proportions of diseases, graphs can be made. However, any trends evident on these graphs give **only** an indication of changes within **the patient population**; they cannot be simply extrapolated to the total target population.

## 8. EVALUATION

Evaluation at dispensary level:

**Level of functioning:** activity assessment, quantity of drugs used, prescription behaviour, use of treatment protocols, medical stock and pharmacy management (orders, reports and stockkeeping) should be used as indicators in program management.

- Morbidity surveillance in the dispensary is used in health surveillance.
- The workload can be evaluated by dividing the number of daily consultations by the number of persons doing consultations.
- The number of consultations per person per year (CPPPY) gives an indication of the capacity of the dispensary and the health status of the target population (at the beginning of an emergency situation, 4 CPPPY are expected this should decrease when the health status of the population improves. In the case of epidemics, it will increase.
- The checklist in the annex 29 can be used for activity assessments in the dispensary.

Below, examples can be found on ways to evaluate rational drug use, use of protocols and general dispensary functioning.

### Percentage of rational prescriptions

The irrational use of drugs is one of the factors that can adversely influence the quality of a dispensary: there may be too many injections given, or antibiotics may be prescribed too easily. The training of medical staff to prescribe properly (correct indication, appropriate prescription, etc.) is thus essential. The introduction of clinical guidelines, essential drugs, and diagnostic and treatment protocols are tools to improve the rational use of drugs. This can be evaluated by doing a small «study» to investigate the percentage of rational prescriptions. This method allows one to gain a better understanding of whether or not treatments are given according to protocols, what the results are of training of the persons doing the consultations and what problems exist in prescription behaviour. By repeating the study after some months, any improvement can be described more concretely. Example:

- Randomly select 20 patients from the consultation registration book: determine the number of patients during the last day, e.g. 60, divided by 20 makes 3 (sample interval). Choose a random number between 0 and 60, e.g. 34. Choose patients 34, 37, 40, 43, etc.)
- Discuss each prescription with the person who did those consultations and decide whether the prescription was rational or not according to criteria defined beforehand. These criteria might differ depending on the circumstances and could be discussed with the medical staff before doing this:

Criteria for a rational prescription:

- The treatment fits the diagnosis
- It follows the treatment protocol
- Less than 3 drugs per patient were prescribed
- The correct drug/dosage in relation to age, sex, pregnancy, etc... was used
- The proper duration of treatment was given
- Contra-indications were respected
- The proper route of administration (IV, IM, oral) was ordered
- The generic name of the drug was used
- Etc...

## How to investigate drug use in a health facility

Another method to evaluate the rational use of drugs can be found in the literature (ref. <sup>21</sup>). A number of standardised key indicators can be investigated:

• Prescribing indicators:

- 1- Average number of drugs prescribed per patient
- 2- Percentage of drugs prescribed by generic name
- 3- Percentage of encounters with an antibiotic prescribed
- 4- Percentage of encounters with an injection prescribed
- 5- Percentage of drugs prescribed from essential drugs list

• Patient care indicators:

- 6- Average consultation time per patient
- 7- Average dispensing time per patient
- 8- Percentage of prescribed drugs actually dispensed
- 9- Percentage of drugs adequately labelled
- 10 - Patients' knowledge of correct dosage

• Facility indicators:

- 11- Availability of copy of essential drugs list or formulary
- 12- Availability of key drugs

The sample depends on the purpose of the investigation: For example to be able to compare between different dispensaries, 100 patient encounters need to be investigated per dispensary.

The encounters can either be retrospective (by examining the data in the consultation registration book) or prospective (by examining the data on the individual health cards and interviewing patients when they leave the dispensary).

The results will not always give answers as to why certain indicators are too high or too low but they will give a strong indication as to the weak and strong points. This



can be used to set priorities and guide further investigation in a specific dispensary or in the whole program.

After analysis of the results of the investigation, ideal norms need to be defined for each indicator. The findings of the investigation can be used as a needs assessment for training of the staff involved. In workshops, underlying issues can be discussed to find out why indicators are above or below the norm. By repeating the investigation, the impact of training can be measured.

## Exit interviews

Interviewing patients after they have left the dispensary can be a valuable method to obtain additional information about how the dispensary functions. It can be done separately or as extension of the investigation of drug use as mentioned above. A standard interview form could be made and 30 patients need to be interviewed per dispensary. Examples could include:

- What was the main complaint and diagnosis according to the patient and to the health worker?
- Does the patient understand the diagnosis?
- Does the patient know how and for how long to take the different medications given?
- Was health education given and understood?
- What is the opinion of the patients on the services provided? If not satisfied, why not?
- What was the condition of the patient? Should he or she have been referred or admitted?

The number and sorts of questions depend on what one would like to know. It is very important to discuss this well with the staff of the dispensary; it could easily be seen as suspicion about their individual work while it is meant as feedback to improve the quality of the dispensary. Behaviour of staff might change when they know an investigation is being done.

## 9. REPORTING

During the emergency phase, a weekly report needs to be made by the supervisor of the dispensary. This report should be no longer than 1 page, excluding morbidity forms or graphs. The report should provide information concerning the objectives of the dispensary and the different services. When the situation is more stable, a 2 or 3 page monthly report can be made, providing more in-depth information and views.

- It is important not to give only the figures: there should be analysis, conclusions and recommendations on how to adjust activities for each objectives.
  - A copy of the report needs to be distributed to those involved with its functioning (i.e.: the dispensaries, the MOH, UNHCR or other relief organisations).
- The following example could serve as an outline:

### Morbidity surveillance

- Copies of the weekly morbidity forms should be included. Graphs should be drawn up if possible.
- Graphs should be analysed, the major types of morbidity and any changes in these should be described.
- If any special interventions were introduced, the impact on the morbidity should be looked at (i.e.: when the intervention started and the effect seen).

### Activities

- An overview and description of the various services in the dispensary should be given.
- Any changes such as starting new services or closing old ones should be mentioned and explanations provided (e.g. description of additional activities in the dispensary in case of an outbreak intervention should be given).
- Output figures for the services are only useful if accurate: e.g. coverage, percentage recovered in ORT, percentage completed treatment in injection room, etc... conclusions concerning the quality of the services and recommendations for the next week need to be formulated.

### Output/ capacity

- The total number of consultations under 5 and above 5, per week, per dispensary in relation to the population size and the average number of consultations per person doing consultations should be given.
- If any changes are evident, explanations should be given.
- An opinion as to whether or not the capacity of the dispensary is sufficient should be expressed.

## **Relation with MOH or other NGO's**

If any of the new activities are being done together with other organisations, their name should be mentioned and should be described the agreements for cooperation.

## **Problems**

In general, or specific per clinic. Possible solutions should be proposed.

## **Plans for next week / month**

A list of plans for activities, training or interventions for the following week should be drawn up.

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# 11 • ANNEXES

- Annex 1– Health card
- Annex 2– Temperature, pulse, weight and MUAC procedure lists
- Annex 3a– Management of the sick young infant, age 1 week up to 2 months
- Annex 3b– Management of the sick young infant, age 2 months up to 5 years
- Annex 3c– Diagnostic flow-chart for cough in adults
- Annex 3d– Diagnostic flow-chart for fever in adults
- Annex 3e– Diagnostic and treatment flow-chart for diarrhoea
- Annex 3f– Diagnostic and treatment flow-chart, fever of unknown origin
- Annex 4– Dosages of most frequently prescribed drugs by weight of the patient
- Annex 5– Registration of consultations
- Annex 6– Referral form
- Annex 7– Injection procedure list
- Annex 8– Order form injection room
- Annex 9– Registration form, injection room
- Annex 9a– Daily registration of the injections
- Annex 9b– Weekly report of the injections
- Annex 10– Dressing procedure list
- Annex 11– Order form dressing room
- Annex 12– Registration form, dressing room
- Annex 13– Sterilisation procedure list
- Annex 14– Oral rehydration referral and follow up form
- Annex 15– Order form, ORT corner
- Annex 16– Registration form, ORT corner
- Annex 17– Registration of measles vaccinations
- Annex 18– Lay out and patient flow
- Annex 19– Estimation of staff requirements
- Annex 20– Organization chart of the staff in a dispensary
- Annex 21– Drugs flow-chart and registration
- Annex 22– Stock card
- Annex 23– Medical stock inventory control and order form
- Annex 24a– Inventory non-medical material
- Annex 24b– Inventory medical material
- Annex 25a– Pharmacy daily consumption report
- Annex 25b– Pharmacy weekly consumption report
- Annex 26– Daily morbidity surveillance form
- Annex 27– Weekly morbidity surveillance form
- Annex 28– Case definitions
- Annex 29– Activity assessment check-list

# ANNEX 1

## Health card

HEALTH CARD CARTE DE SANTÉ												GENO NO. GENÉRIQUE		DATE OF APPROVAL DATE D'APPROBATION	
NAME NOM		ADDRESS IN ADRESSE EN FRANÇAIS		ADDRESS IN ADRESSE EN ANGLAIS		MEDICATION NO. NOMBRÉ DE MÉDICAMENTS		DATE OF ISSUE OF CARD DATE DE DÉLIVRÉ DE LA CARTE		NAME OF PHARMACY NOM DE LA PHARMACIE		DATE OF EXPIRY DATE D'ÉCHÉANCE			
1. NAME OF CARD NOM DE LA CARTE		2. SEX SEX		3. SERVICE NO. NOM		4. MED. NO. NOM		5. MED. NO. NOM		6. NAME OF PHARMACY NOM DE LA PHARMACIE		7. DATE OF EXPIRY DATE D'ÉCHÉANCE			
8. NAME OF CARD NOM DE LA CARTE		9. SEX SEX		10. SERVICE NO. NOM		11. MED. NO. NOM		12. MED. NO. NOM		13. NAME OF PHARMACY NOM DE LA PHARMACIE		14. DATE OF EXPIRY DATE D'ÉCHÉANCE			
15. NAME OF CARD NOM DE LA CARTE		16. SEX SEX		17. SERVICE NO. NOM		18. MED. NO. NOM		19. MED. NO. NOM		20. NAME OF PHARMACY NOM DE LA PHARMACIE		21. DATE OF EXPIRY DATE D'ÉCHÉANCE			
22. NAME OF CARD NOM DE LA CARTE		23. SEX SEX		24. SERVICE NO. NOM		25. MED. NO. NOM		26. MED. NO. NOM		27. NAME OF PHARMACY NOM DE LA PHARMACIE		28. DATE OF EXPIRY DATE D'ÉCHÉANCE			
29. NAME OF CARD NOM DE LA CARTE		30. SEX SEX		31. SERVICE NO. NOM		32. MED. NO. NOM		33. MED. NO. NOM		34. NAME OF PHARMACY NOM DE LA PHARMACIE		35. DATE OF EXPIRY DATE D'ÉCHÉANCE			
36. NAME OF CARD NOM DE LA CARTE		37. SEX SEX		38. SERVICE NO. NOM		39. MED. NO. NOM		40. MED. NO. NOM		41. NAME OF PHARMACY NOM DE LA PHARMACIE		42. DATE OF EXPIRY DATE D'ÉCHÉANCE			
43. NAME OF CARD NOM DE LA CARTE		44. SEX SEX		45. SERVICE NO. NOM		46. MED. NO. NOM		47. MED. NO. NOM		48. NAME OF PHARMACY NOM DE LA PHARMACIE		49. DATE OF EXPIRY DATE D'ÉCHÉANCE			
50. NAME OF CARD NOM DE LA CARTE		51. SEX SEX		52. SERVICE NO. NOM		53. MED. NO. NOM		54. MED. NO. NOM		55. NAME OF PHARMACY NOM DE LA PHARMACIE		56. DATE OF EXPIRY DATE D'ÉCHÉANCE			
57. NAME OF CARD NOM DE LA CARTE		58. SEX SEX		59. SERVICE NO. NOM		60. MED. NO. NOM		61. MED. NO. NOM		62. NAME OF PHARMACY NOM DE LA PHARMACIE		63. DATE OF EXPIRY DATE D'ÉCHÉANCE			
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71. NAME OF CARD NOM DE LA CARTE		72. SEX SEX		73. SERVICE NO. NOM		74. MED. NO. NOM		75. MED. NO. NOM		76. NAME OF PHARMACY NOM DE LA PHARMACIE		77. DATE OF EXPIRY DATE D'ÉCHÉANCE			
78. NAME OF CARD NOM DE LA CARTE		79. SEX SEX		80. SERVICE NO. NOM		81. MED. NO. NOM		82. MED. NO. NOM		83. NAME OF PHARMACY NOM DE LA PHARMACIE		84. DATE OF EXPIRY DATE D'ÉCHÉANCE			
85. NAME OF CARD NOM DE LA CARTE		86. SEX SEX		87. SERVICE NO. NOM		88. MED. NO. NOM		89. MED. NO. NOM		90. NAME OF PHARMACY NOM DE LA PHARMACIE		91. DATE OF EXPIRY DATE D'ÉCHÉANCE			
92. NAME OF CARD NOM DE LA CARTE		93. SEX SEX		94. SERVICE NO. NOM		95. MED. NO. NOM		96. MED. NO. NOM		97. NAME OF PHARMACY NOM DE LA PHARMACIE		98. DATE OF EXPIRY DATE D'ÉCHÉANCE			
99. NAME OF CARD NOM DE LA CARTE		100. SEX SEX		101. SERVICE NO. NOM		102. MED. NO. NOM		103. MED. NO. NOM		104. NAME OF PHARMACY NOM DE LA PHARMACIE		105. DATE OF EXPIRY DATE D'ÉCHÉANCE			

NAME NOM		ADDRESS IN ADRESSE EN FRANÇAIS		ADDRESS IN ADRESSE EN ANGLAIS		MEDICATION NO. NOMBRÉ DE MÉDICAMENTS		DATE OF ISSUE OF CARD DATE DE DÉLIVRÉ DE LA CARTE		NAME OF PHARMACY NOM DE LA PHARMACIE		DATE OF EXPIRY DATE D'ÉCHÉANCE	
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8. NAME OF CARD NOM DE LA CARTE		9. SEX SEX		10. SERVICE NO. NOM		11. MED. NO. NOM		12. MED. NO. NOM		13. NAME OF PHARMACY NOM DE LA PHARMACIE		14. DATE OF EXPIRY DATE D'ÉCHÉANCE	
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22. NAME OF CARD NOM DE LA CARTE		23. SEX SEX		24. SERVICE NO. NOM		25. MED. NO. NOM		26. MED. NO. NOM		27. NAME OF PHARMACY NOM DE LA PHARMACIE		28. DATE OF EXPIRY DATE D'ÉCHÉANCE	
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## ANNEX 2

## Temperature, pulse, weight, MUAC procedure and performance check-lists

An E means it is an exclusion activity: if not done correctly, the person fails the test.

Acceptable level of performance is 75% of the total score.

### Temperature:

• Use a clean thermometer	.../1
E Make sure the level of the contrast fluid is below 36 Celsius, shake down if not	.../2
E Place the tip of the thermometer correctly under the axilla	.../2
E Leave the thermometer in place for 5 minutes	.../2
• Read the temperature from the thermometer	.../2
• Write down the temperature on the patient health card	.../2
• Clean the thermometer	.../1
<hr/>	
TOTAL SCORE	.../12

### Pulse:

• Put the patient in a comfortable position	.../1
• Place the index and middle finger on the radial or femoral artery and press slightly	.../1
• Check till a pulse is palpable	.../1
E Count the pulses for 20 seconds and multiply by 3	.../2
• Write down the frequency per minute on the patient health card	.../2
• Write down if the pulse was regular or irregular	.../1
• Write down if the pulse was weak or strong	.../1
<hr/>	
TOTAL SCORE	.../9

### Weight, 25 Kg hanging spring scale (children under 5):

E Hang the weighing pants on the hook of the scale and adjust to zero	.../2
• Place the child in the weighing trousers	.../1
• Attach it to the hook of the scale and read the weight to the nearest 100gr when the child is steady	.../2
• Unhook the trousers and remove them from the child	.../1
E Write down the weight on the patient health card	.../2
<hr/>	
TOTAL SCORE	.../8

### MUAC (children under 5):

• Put the patient in a comfortable position	.../1
E Take the left arm	.../2
E Place the MUAC tape at the mid point between the elbow and the shoulder	.../2
• The arm should not be pinched by the tape and the tape should not be loose	.../1
• Read the measurement from the tape	.../1
E Write down the MUAC size on the patient health card	.../2
<hr/>	
TOTAL SCORE	.../9

## ANNEX 3 • a

Management of the sick young infant  
age 1 week up to 2 months

Name: ..... Age: ..... Weight: ..... kg Temperature: ..... °C

ASK: what are the infant's problems? .....

Initial visit? ..... Follow-up visit? .....

ASSESS (circle all signs present)	CLASSIFY
<p><b>CHECK FOR POSSIBLE BACTERIAL INFECTION</b></p> <ul style="list-style-type: none"> <li>• Has the infant had convulsions?               <ul style="list-style-type: none"> <li>• Count the breaths in one minute . . . . . breaths per minute</li> <li>• Repeat if elevated . . . . . Fast breathing?</li> <li>• Look for severe chest indrawing</li> <li>• Look for nasal flaring</li> <li>• Look and listen for grunting</li> <li>• Look and feel for bulging fontanelle</li> <li>• Look for pus draining from the ear</li> <li>• Look at the umbilicus. It is red or draining pus?                   <ul style="list-style-type: none"> <li>Does the redness extend to the skin?                       <ul style="list-style-type: none"> <li>• Fever (temperature 37.5°C or above feels hot) or low body temperature (below 35.5°C or feels cool)</li> <li>• Look for skin pustules. Are they many or severe pustules?</li> <li>• See if the young infant is lethargic or unconscious.</li> <li>• Look at young infant's movements. Less than normal?</li> </ul> </li> </ul> </li> </ul> </li> </ul>	
<p><b>DOES THE YOUNG INFANT HAVE DIARRHOEA?</b>      Yes . . . . . No . . . . .</p> <ul style="list-style-type: none"> <li>• For how long? . . . . . Days</li> <li>• Is there blood in the stool?</li> <li>• Look at the young infant's general condition. Is the infant:               <ul style="list-style-type: none"> <li>- lethargic or unconscious?</li> <li>- Restless and irritable?</li> </ul> </li> <li>• Look for sunken eyes.</li> <li>• Pinch the skin of the abdomen. Does it go back:               <ul style="list-style-type: none"> <li>- Very slowly (longer than 2 seconds)?</li> <li>- Slowly?</li> </ul> </li> </ul>	
<p><b>THEN CHECK FOR FEEDING PROBLEM OR LOW WEIGHT</b></p> <ul style="list-style-type: none"> <li>• Is there any difficulty feeding?      Yes . . . . . No . . . . .</li> <li>• Determine weight for age.      Low . . . . . Not low . . . . .</li> <li>• Is the infant breast fed?      Yes . . . . . No . . . . .</li> <li>If yes, how many times in 24 hours? . . . . . times</li> <li>• Does the infant usually receive any other foods or drinks?      Yes . . . . . No . . . . .</li> <li>If yes, how often? . . . . .</li> <li>• What do you use to feed the child? . . . . .</li> <li>.....</li> <li>.....</li> </ul>	



ASSESS (circle all signs present)	CLASSIFY												
<p>If the infant has any difficulty feeding, is feeding less than 8 times in 24 hours, is taking any other food or drinks, or is low weight for age AND has no indications to refer urgently to hospital:</p> <p><b>ASSESS BREASTFEEDING:</b></p> <ul style="list-style-type: none"> <li>• Has the infant breast fed in the previous hour? If infant has not fed in the previous hour, ask the mother to put her infant to the breast. Observe the breast feeding for 4 minutes.</li> <li>• Is the infant able to attach? To check attachment look for:               <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">– Chin touching breast</td> <td style="width: 50%;">Yes .... No .....</td> </tr> <tr> <td>– Mouth wide open</td> <td>Yes .... No .....</td> </tr> <tr> <td>– Lower lip turned outward</td> <td>Yes .... No .....</td> </tr> <tr> <td>– More areola above than below the mouth</td> <td>Yes .... No .....</td> </tr> </table> </li> </ul> <p><i>No attachment at all                  Not well attached                  Good attachment</i></p> <ul style="list-style-type: none"> <li>• Is the infant suckling effectively (that is, slow deep sucks, sometimes pausing?) <i>No suckling at all                  Not suckling effectively                  Suckling effectively</i></li> <li>• Look for ulcers or white patches in the mouth (thrush)</li> </ul>	– Chin touching breast	Yes .... No .....	– Mouth wide open	Yes .... No .....	– Lower lip turned outward	Yes .... No .....	– More areola above than below the mouth	Yes .... No .....					
– Chin touching breast	Yes .... No .....												
– Mouth wide open	Yes .... No .....												
– Lower lip turned outward	Yes .... No .....												
– More areola above than below the mouth	Yes .... No .....												
<p><b>CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS</b> (circle immunizations needed today)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">BCG</td> <td style="text-align: center;">DPT1</td> <td style="text-align: center;">DPT2</td> <td style="text-align: center;">OPV0</td> <td style="text-align: center;">OPV1</td> <td style="text-align: center;">OPV2</td> </tr> <tr> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> </tr> </table>	BCG	DPT1	DPT2	OPV0	OPV1	OPV2	.....	.....	.....	.....	.....	.....	<p>Return for next immunization on:  (date).....</p>
BCG	DPT1	DPT2	OPV0	OPV1	OPV2								
.....	.....	.....	.....	.....	.....								
<p><b>ASSESS OTHER PROBLEMS:</b></p>													

## ANNEX 3 • b

Management of the sick young infant  
age 2 months up to 5 years

Name: ..... Age: ..... Weight: ..... kg Temperature: ..... °C

ASK: what are the infant's problems? .....

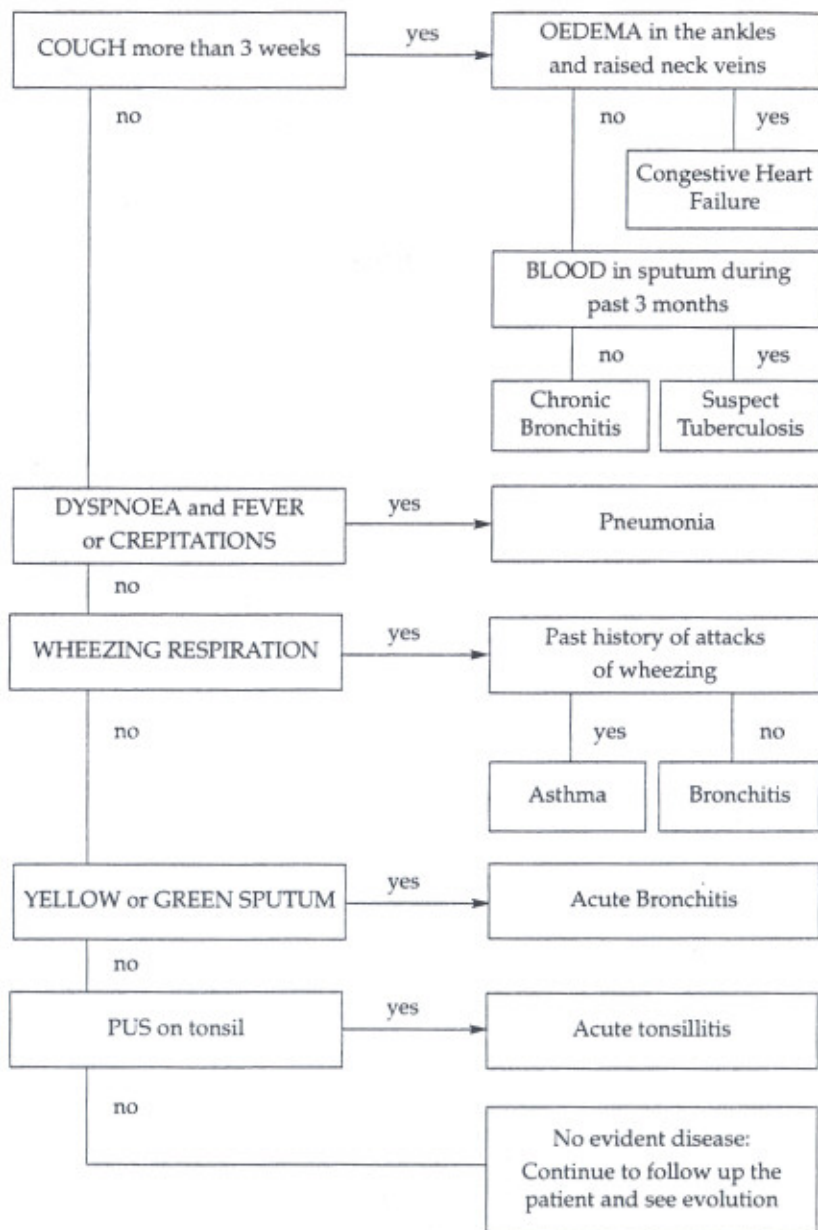
Initial visit? ..... Follow-up visit? .....

ASSESS (circle all signs present)	CLASSIFY
<p><b>CHECK FOR GENERAL DANGER SIGNS</b></p> <ul style="list-style-type: none"> <li>• Not able to drink or breastfeed</li> <li>• Vomit everything</li> <li>• Lethargic or unconscious</li> <li>• Convulsions</li> </ul>	<p>General danger signs presents? Yes..... No .....</p> <p><b>Remember to use danger sign when selecting classifications</b></p>
<p><b>DOES THE CHILD HAVE COUGH OR DIFFICULT BREATHING?</b> Yes .... No .....</p> <ul style="list-style-type: none"> <li>• For how long? ..... Days</li> <li>• Count the breaths in 1 minute ..... breaths per minute. Fast breathing?</li> <li>• Look for chest indrawing</li> <li>• Look and listen for stridor.</li> </ul>	
<p><b>DOES THE YOUNG INFANT HAVE DIARRHOEA?</b> Yes .... No .....</p> <ul style="list-style-type: none"> <li>• For How long? ..... Days</li> <li>• Is there blood in the stool?</li> <li>• Look at the young infant's general condition. Is the infant:               <ul style="list-style-type: none"> <li>- lethargic or unconscious?</li> <li>- Restless and irritable?</li> </ul> </li> <li>• Look for sunken eyes.</li> <li>• Offer the child fluid. Is the child:               <ul style="list-style-type: none"> <li>- Not able to drink or drinking poorly?</li> <li>- Drinking eagerly, thirsty?</li> </ul> </li> <li>• Pinch the skin of the abdomen. Does it go back:               <ul style="list-style-type: none"> <li>- Very slowly (longer than 2 seconds)?</li> <li>- Slowly?</li> </ul> </li> </ul>	
<p><b>DOES THE CHILD HAVE FEVER?</b> Yes .... No .....</p> <p>(by history/feels hot/temperature 37.5°C or above)</p> <p>Decide Malaria risk: High Low</p> <ul style="list-style-type: none"> <li>• For how long? ..... days</li> <li>If more than 7 days, has fever been present every day?</li> <li>• Look and feel for stiff neck</li> <li>• Look for runny nose</li> <li>• Has child had measles within the last 3 months?</li> <li>• Look for signs of MEASLES:               <ul style="list-style-type: none"> <li>- generalized rash and</li> <li>- One of these: cough, runny nose or red eyes</li> </ul> </li> </ul>	

ASSESS (circle all signs present)	CLASSIFY																				
<p><b>Has the child had measles within the last 3 months:</b> Yes .... No .....</p> <ul style="list-style-type: none"> <li>• Look for mouth ulcers. If yes, are they deep and extensive?</li> <li>• Look for pus draining from the eye.</li> <li>• Look for clouding of the cornea.</li> </ul>																					
<p><b>DOES THE CHILD HAVE AN EAR PROBLEM?</b> Yes .... No .....</p> <ul style="list-style-type: none"> <li>• Is there ear pain?</li> <li>• Is there ear discharge? If yes, for how long? ..... Days</li> <li>• Look for pus draining from the ear</li> <li>• Feel for tender swelling behind the ear</li> </ul>																					
<p><b>THEN CHECK FOR MALNUTRITION AND ANAEMIA</b></p> <ul style="list-style-type: none"> <li>• Look for visible severe wasting</li> <li>• Look for palmar pallor Severe palmar pallor?      Some palmar pallor?</li> <li>• Look for oedema of both feet</li> <li>• Determine weight for height  <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center;">&lt; 70%</td> <td style="width: 33%; text-align: center;">&lt; 70%–80%</td> <td style="width: 33%; text-align: center;">&gt; 80%</td> </tr> </table> </li> </ul>	< 70%	< 70%–80%	> 80%																		
< 70%	< 70%–80%	> 80%																			
<p><b>CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS</b> (circle immunizations needed today)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">BCG</td> <td style="text-align: center;">DPT1</td> <td style="text-align: center;">DPT2</td> <td style="text-align: center;">DPT3</td> <td></td> </tr> <tr> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td></td> </tr> <tr> <td style="text-align: center;">OPV0</td> <td style="text-align: center;">OPV1</td> <td style="text-align: center;">OPV2</td> <td style="text-align: center;">OPV3</td> <td style="text-align: center;">Measles</td> </tr> <tr> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> <td style="text-align: center;">.....</td> </tr> </table>	BCG	DPT1	DPT2	DPT3		.....	.....	.....	.....		OPV0	OPV1	OPV2	OPV3	Measles	.....	.....	.....	.....	.....	<p>Return for next immunization on:  (date).....</p>
BCG	DPT1	DPT2	DPT3																		
.....	.....	.....	.....																		
OPV0	OPV1	OPV2	OPV3	Measles																	
.....	.....	.....	.....	.....																	
<p><b>ASSESS CHILD'S FEEDING if child has ANAEMIA OR VERY LOW WEIGHT or is less than 2 years old</b></p> <ul style="list-style-type: none"> <li>• Do you breastfeed your child? Yes ..... No .....</li> <li>If Yes, how many times in 24 hours? ..... times.</li> <li>Do you breastfeed during the night? Yes ..... No .....</li> <li>• Does the child take any other food or fluids? Yes ..... No .....</li> <li>If Yes, what food or fluids? .....</li> <li>.....</li> <li>How many times per day? ..... times.</li> <li>What do you use to feed the child? .....</li> <li>If very low weight for age: how large are servings? .....</li> <li>Does the child receive his own serving? .....</li> <li>Who feed the child and how? .....</li> <li>• During this illness, has the child's feeding changed? Yes .... No .....</li> <li>If Yes, how? .....</li> </ul>																					
<p><b>ASSESS OTHER PROBLEMS:</b></p>																					

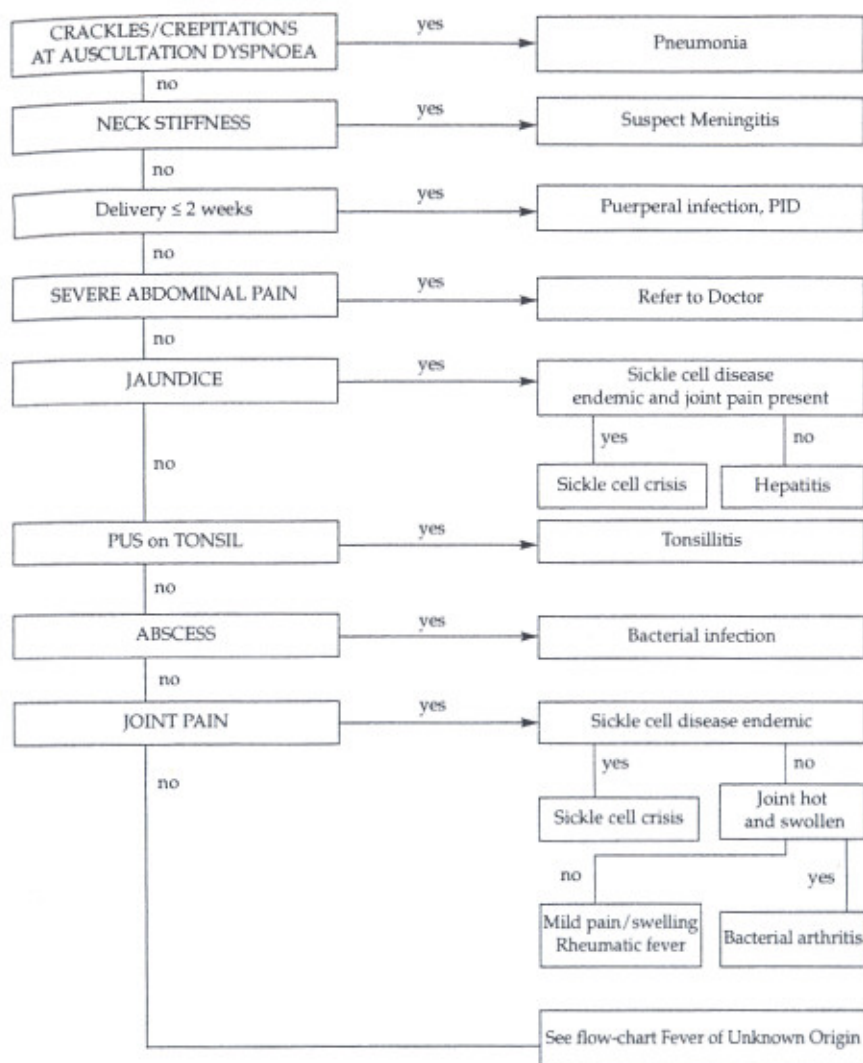
## ANNEX 3•c

## Diagnostic flow-chart for cough in adults



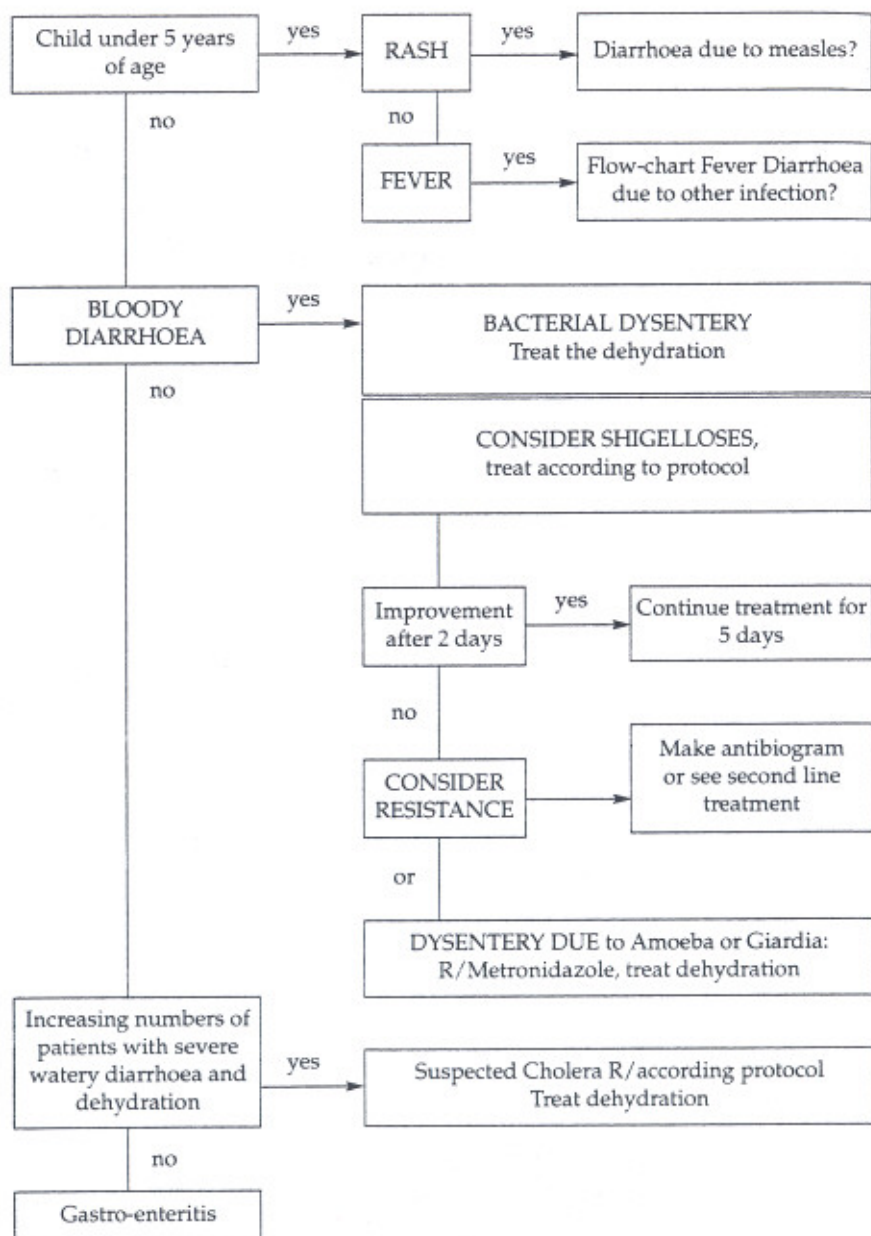
## ANNEX 3•d

## Diagnostic flow-chart for fever in adults



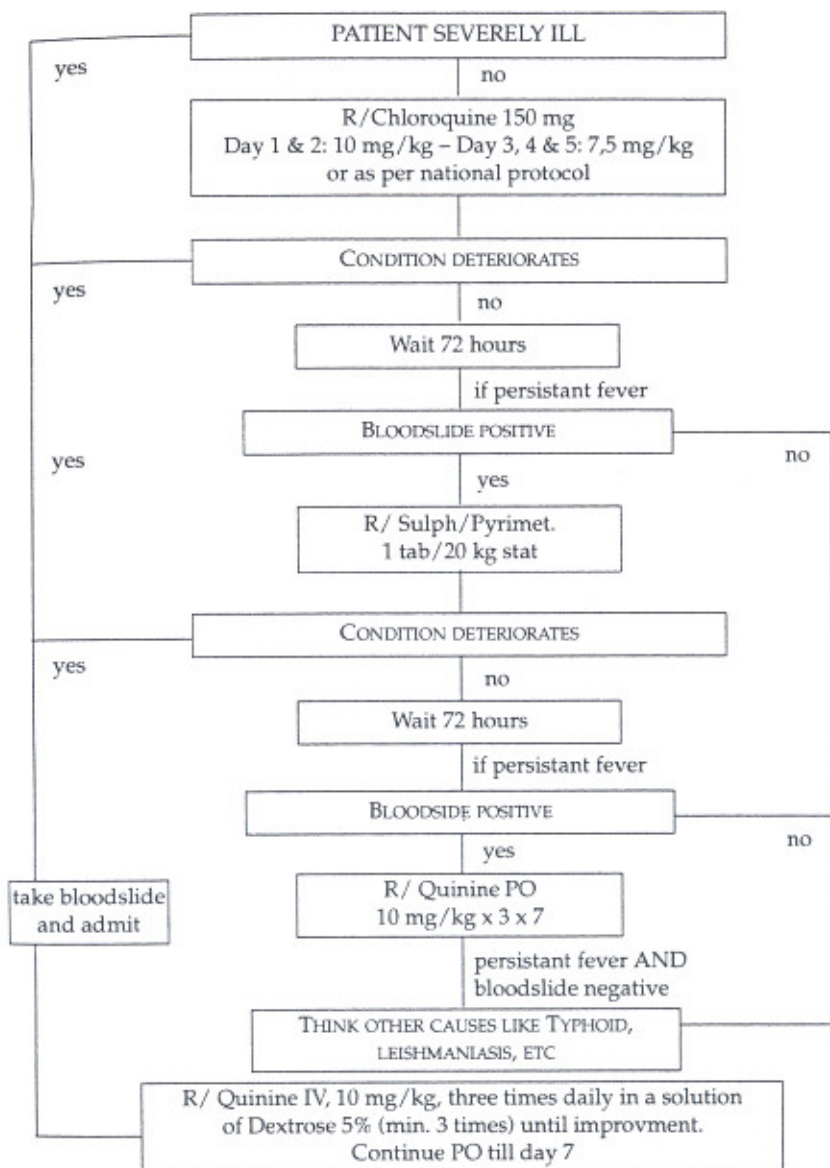
## ANNEX 3•e

## Diagnostic flow-chart for diarrhoea



## ANNEX 3•f

## Diagnostic and treatment flow-chart

Fever of unknown origin (temp.  $\geq 38.5$  Celsius)

## ANNEX 4

## Dosages of most frequently prescribed drugs by weight

- CI = Contra Indicated based on age/weight; for other CI of the drugs mentioned, check ref. 6.
- 1/2 x 2 x 5 = 1/2 a tablet, twice daily, for 5 days.
- Durations are indicated as found in reference 4. Depending on clinical progress, some treatments may need to be continued longer.
- For further information concerning contra-indications, see reference 4.
- Treatment with Chloroquine can vary depending on national protocol.
- Treatment with Ampicilline injectable should change to oral medication when appropriate. Total duration 7 days minimum.

	< 4 kg	4-8 kg	9-15 kg	15-35 kg	> 35 kg
Acet.Sal.Acid 300mg tab	CI	CI	1/2 tab x 3 x 3	1 tab x 3 x 3	2 tab x 3 x 3
Amoxicilline 250mg tab	1/4 tab x 2 x 5	1/2 tab x 2 x 5	1 tab x 2 x 5	1 1/2 tab x 2 x 5	2-4 tab x 2 x 5
Chloroquine 150mg tab day 1 and 2 day 3, 4 and 5		1/4 tab 1/4 tab	1/2 tab 1/2 tab	1 1/2 tab 1 tab	4 tab 2 tab
Cotrimoxazol 480mg tab	CI	1/4 tab x 2 x 5	1/2 tab x 2 x 5	1 tab x 2 x 5	2 tab x 2 x 5
Mebendazol 100mg tab	CI	CI	1 tab x 2 x 3	1 tab x 2 x 3	1 tab x 2 x 3
Metronidazol 250mg tab		1/4 tab x 3 x 7	1/2 tab x 3 x 7	1 tab x 3 x 7	2 tab x 3 x 7
Paracetamol 100mg tab	1/4 tab x 3 x 3	1/2 tab x 3 x 3	1 tab x 3 x 3	2 tab x 3 x 3	
Paracetamol 500mg tab			1/4 tab x 3 x 3	1/2 tab x 3 x 3	1-2 tab x 3 x 3
Penicilline V 250mg tab	1/2 tab x 3 x 7	3/4 tab x 3 x 7	1 tab x 3 x 7	1 1/2 tab x 3 x 7	2 tab x 3 x 7
Quinine 200mg tab		1/4 tab x 3 x 7	1/2 tab x 3 x 7	1 tab x 3 x 7	3 tab x 3 x 7
Sulph/Pyrimet 525mg tab	avoid	avoid	1/2-1 tab stat	1-2 tab stat	2-3 tab stat
Ampicilline 500mg vial		1/4-1/2 vl x 3	1/2-1 vl x 3	1-2 vl x 3	2-3 vl x 3
Proc. Peni.F. 3MU vial			1/3 vl x 1 x 5	1/2 vl x 1 x 5	1/2-1vl x 1 x 5





## ANNEX 6

### Referral form

Camp: ..... Dispensary: .....  
 Date: ..... Time: .....  
 Referred to: ..... Referral #: .....  
 Name of the patient: .....  
 Age: ..... Sex: .....

**Diagnosis:** .....

**History:** .....

.....

.....

**Vital signs:**

- Consciousness: ..... Blood pressure: ..... mm Hg
- Pulse: ..... / min      Resp. Rate: ..... / min
- Temperature: ..... Celsius

**Physical examination:**

.....

.....

.....

**Treatment given (including date and time when given):**

.....

.....

.....

**Reason for referral:**

.....

.....

.....

Referral by: ..... Signature: .....

**Hospital discharge report (Use back of form if insufficient space):**

.....

.....

.....

## ANNEX 7

## Injection procedure and performance check-list

The following injection procedure check list can be used as performance check-list by grading each step.

The maximum points per activity can be found after the /.

An E before the activity means it is an exclusion activity: if not done correctly, the person fails the test.

The maximum score in this example is 28 points: a person with less than 22 points fails the test (appr. 75% of max. score).

- |   |  |       |
|---|--|-------|
| E | Check the prescription: drug, dosage and route of injection  | .../2 |
| • | Register the patient on the daily injection registration form or tick the date the patient has come back for the repeated injections | .../1 |
| E | Select appropriate drug and check expiry date  | .../2 |
| • | Prepare material: needle, syringe, cotton wool and disinfectant  | .../1 |
| • | Give explanation to the patient  | .../1 |
| • | Ask the patient to sit or lie down   | .../1 |
| E | Wash hands   | .../2 |
| • | Connect the needle with the syringe  | .../0 |
| E | Disinfect the vial or ampoule  | .../2 |
| E | Aspirate the appropriate dosage  | .../2 |
| • | Remove the air from the syringe  | .../1 |
| E | Disinfect the appropriate site for the injection   | .../2 |
| • | Insert the needle at the right angle   | .../1 |

Injection	Intramuscular (IM)	Subcutaneous (SC)
SITE	<ul style="list-style-type: none"> <li>• Upper Outer Quadrant of the buttock in adults</li> <li>• Frontal Upper Outer Quadrant of the thigh in children</li> <li>• Upper arm (musculus deltoideus)</li> </ul>	<ul style="list-style-type: none"> <li>• Outer Upper arm</li> </ul>
ANGLE	<ul style="list-style-type: none"> <li>• Insert at 90 degrees angle in the muscle</li> </ul>	<ul style="list-style-type: none"> <li>• Take a skin fold between thumb and index finger</li> <li>• Insert at 15 degrees angle</li> <li>A swelling will appear</li> </ul>

- |   |  |       |
|---|--|-------|
| E | Aspirate first to see if the needle is not situated in a blood vessel  | .../2 |
| • | Inject the drug slowly   | .../1 |
| • | Remove the needle quickly  | .../1 |
| • | Put pressure on the injection site with cotton wool  | .../1 |
| E | Throw the needle in the appropriate container (don't remove it by hand, don't replace the cap on the needle) | .../2 |
| • | Throw the syringe in the waste bin   | .../1 |
| • | Clean up the table   | .../1 |
| • | Register the injection given on the patient health card  | .../1 |

TOTAL SCORE

.../28

**ANNEX 8****Order form injection room**

Product	Quantity ordered	Quantity received
Needles 19G		
Needles 21G		
Needles 23G		
Syringes 2ml		
Syringes 5ml		
Syringes 10ml		
Benzath. Peni. vial		
H2O for inj. 10ml		
PPF vial		
Cotton wool 500gr		
Chlorhex/cetr. 1 ltr		
Soap pcs		

**ANNEX 9•a****Daily registration of the injections**

Date	Number card	Name patient	Age	Drug	Dosage	Duration	Dates to give injections
1/9/96	1001	A. Griekspoor	33	Benz Peniciline	2.4 MU	2 inj.	1/9, 14/9
1/9/96	1002	N. Sohler	5	PPF	1.5 MU	5 days	1/9, 2/9, 3/9, 4/9, 5/9
1/9/96	1003	F. Guillaume	3	PPF	1 MU	5 days	1/9, 2/9, 3/9, 4/9, 5/9

**ANNEX 9•b****Weekly report of the injections**

From .../.../...	Daily tally < 5 years old	Daily tally ≥ 5 years old	Weekly Total
Till .../.../...			
Number of injections			
Total			

## ANNEX 10

## Dressing procedure and performance check-list

The following wound dressing procedure list can be used as performance check-list by grading each step. For explanation, see injection procedure list, annex 7.

- E Check the prescription .../2
- Register the patient on the daily wound dressing form .../1
- Give explanation to the patient .../1
- Ask the patient to sit or lie down .../1
- Select the appropriate dressing materials .../1
- E Check if expiry dates are written on diluted disinfectant solutions and solutions are not expired .../2

Product	Dilution (use tap- or filtered water)	Storage period diluted solutions	Remarks
Chlorhexidine 1.5% and cetrimide 15%	20 ml Chlorhex/ Cetr. in 1 litre	Maximum of 1 week	Do not use with cranial injuries or in the ear
Gentian Violet	5 gr (= 1 tea spoon) per litre	Maximum of 1 week	Do not use on the face of light skinned people
NaDCC tablets (1.5gr active chlorine per tablet)	1 tab per litre	Maximum of 1 week if in opaque bottle	Do not store in metal container (corrosion)

- E Wash your hands and put on non sterile gloves when appropriate .../2
- Remove old dressing (if it adheres, soak with NaCl before gently removing) .../1
- E Assess the wound and treat appropriately: .../3

	Signs/Symptoms	Cleaning	Drying	Dressing	Follow up
Not infected and/or superficial wound	Not red, warm or swollen No subcutaneous tissue visible	(Use non sterile gloves) First skin around the wound then to the centre Use gauze soaked in Chlorh/Cetr. Solution	Skin around the wound, with gauze -	Gauze to cover the wound, adhesive tape on 2 sides. G.V. only in superficial wound	Repeat every 2 days till wound has healed
Infected wound	Red, swollen, warm and throbbing.	(Use sterile forceps) First centre of the wound, then around. Use sterile gauze soaked in NaDCC sol	Skin around the wound, with sterile gauze	Sterile gauze to cover the wound, adhesive tape on 4 sides.	Repeat every day till wound is no longer infected. Continue as for non infected wound.
Deep wound.	Subcutaneous tissue visible.	(Use sterile forceps) First centre of the wound then around. Use sterile gauze soaked in Chlorh/Cetr. Sol.			

- When finished, place forceps in clean water .../1
- Put all used and dirty dressing materials in the waste bin .../1
- Clean the table with NaDCC or Chlorhex/Cetr. .../1
- Wash your hands .../1
- Register the dressing given on the patient health card .../1
- Tell the patient when to return .../1

TOTAL SCORE

.../20

## ANNEX 11

## Order form for dressing materials

Product	Quantity ordered	Quantity received
Benzyl Benzoate 1 ltr		
Cetrim./chlorh. 1 ltr		
NaDCC tab		
Gentian Violet 25gr		
PVP Iodine 10% 200ml		
Whitfield oitm. 800gr		
Zinc Oxide 800gr		
Adhes. tape 2,5cm pcs		
Bandage elastic roll		
Bandage hydroph. roll		
Cotton wool 500gr		
Gloves, non ster. Pcs		

## ANNEX 12

## Registration of dressing room

From .../.../... Till .../.../...	Daily tally < 5 years old	Daily tally ≥ 5 years old	Weekly Total
Number of dressings			
Number of patients treated for Scabies			
Total			

## ANNEX 13

## Sterilisation procedure and performance check-list

The following sterilisation procedure list can be used as performance check-list by grading each step. For explanation, see injection procedure list, annex 7.

**Phase 1: Decontamination and disinfection**

- |   |   |       |
|---|---|-------|
| • | Place instruments in clean water directly after use (disconnect needles and syringes)   | .../1 |
| E | Prepare fresh solution of NaDCC in plastic basin for decontamination, 1 tab of 1g/litre for 15 min (this precaution is not necessary for instruments that have not been soiled) | .../2 |
| • | Soak instruments for 15 to 20 min in NaDCC solution   | .../2 |
| • | Put on non-sterile gloves (rubber gloves)   | .../1 |
| • | Pour the instruments into a bowl of soapy water   | .../1 |
| • | Scrub the instruments thoroughly with a brush using soap or detergent   | .../1 |
| • | Rinse with clean water  | .../1 |
| • | Check the condition of the material   | .../1 |
| • | Dry instruments with a clean towel or leave to dry  | .../1 |

---

TOTAL SCORE / ALP\* > 9

.../11

**Phase 2: Steam pressure sterilisation (pressure cooker Presto 21 L.)**

- |   |   |       |
|---|---|-------|
| • | Place disinfected instruments or material in metal containers or drums                        | .../1 |
| • | Fill with 2,5 l. of water   | .../1 |
| • | Stick a piece of indicator tape across the lid to seal  | .../1 |
| E | Open the «windows» and place the drums in the perforated or wire-mesh rack                    | .../2 |
| • | Put the autoclave on a burner (high flame) and open the pressure valve                        | .../1 |
| • | Close the valve when a continuous jet of steam escapes  | .../1 |
| • | Adjust the pressure regulator   | .../1 |
| • | Pump the burner to raise the pressure to 1 bar (1 atm./121 ° Celsius)                         | .../2 |
| • | Open the pressure valve. Allow the pressure to drop to 0,2 bar, then close the valve          | .../1 |
| • | Repeat this step to remove all air from the autoclave   | .../1 |
| E | When pressure reaches 1 bar, set the timer for 40 mn  | .../2 |
| • | Adjust the heat source so that a slight jet of steam continuously escapes                     | .../1 |
| • | When the timer rings, turn off the heat   | .../1 |
| • | Open the valve and allow the steam to escape, open the autoclave, leave the lid slightly open | .../1 |
| • | Wait 30 min and then remove the instruments or material                                       | .../1 |
| E | Immediately close the sliding «windows» of the drums and the lids of the container            | .../2 |
| • | Check that the indicator tape has turned an even shade of black                               | .../1 |
| • | Store the equipment in a clean, dry place away from dust, if possible                         | .../1 |

---

TOTAL SCORE / ALP\* > 18

.../22

\* ALP = Acceptable Level of Performance.

NB : until further notice, reusable immunisation material simply needs to be cleaned with water.

## ANNEX 14

## Referral and follow-up form for oral rehydration

DATE:..... NAME:.....

WEIGHT:..... AGE:.....

REFERRED BY:.....

- If the condition of the patient deteriorates or if the patient has improved and reached the discharge criteria: inform the person who was responsible for the referral.
- Treatment for C criteria is not included as this form is based on an ORT corner without possibilities for IV rehydration.
- If a patient still suffers from signs of dehydration after the closing time of the ORT corner, the patient should be referred or admitted in an IPD unit if available.

See WHO protocol	Criteria on Admission	After 1 hr	After 2 hrs	After 3 hrs	After 4 hrs
<b>General condition</b> A: Well, alert B: restless, irritable C: lethargic or unconscious, floppy					
<b>Eyes</b> A: normal B: sunken C: very sunken and dry					
<b>Tears</b> A: present B: absent C: absent					
<b>Mouth and Tongue</b> A: moist B: dry C: very dry					
<b>Thirst</b> A: drinks normally, not thirsty B: thirsty, drinks eagerly C: drinks poorly or not able to drink					
<b>Skin pinch</b> A: goes back quickly B: goes back slowly C: goes back very slowly					
<b>Conclusion: A or B (C refer!)</b>					

## TREATMENT OF THE DEHYDRATION:

B: 75 ml/kg x .....kg = .....ml of ORS to be given in 4 hours:

ORS	Quantity ORS prescribed	Quantity ORS given	Quantity ORS drunk
First hour			
Second hour			
Third hour			
Fourth hour			
Total			



## ANNEX 15

### Order form ORT corner

Product	Quantity ordered	Quantity received
ORS sachets pcs		
Soap pcs		

## ANNEX 16

### Registration ORT corner

ADMISSIONS	Daily tally < 5 years old	Weekly total	Daily tally ≥ 5 years old	Weekly total
A criteria				
B criteria				
Total admissions				

OUTCOME INDICATORS	Daily tally < 5 years old	Weekly total	Daily tally ≥ 5 years old	Weekly total
Health education and ORS to take home				
ORS treatment given in ORT corner				
Number of cases referred				

## ANNEX 17

## Registration of measles vaccination

Place: ..... Reported by: .....

From: ..... Till: .....(day/month/year)

Number of vials used: .....

Utilisation rate:  $\frac{\text{Number of doses given..}}{\# \text{ of vials opened} \times \# \text{ of doses per vial}} = \frac{\quad}{\quad}$ 

One circle is one injection, one square is 100 injections

Age groups		
6 - 8 months	9 - 59 months	> 5 years
○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○
○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○
○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○	○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○ ○○○○○ ○○○○
TOTAL:.....	TOTAL:.....	TOTAL:.....

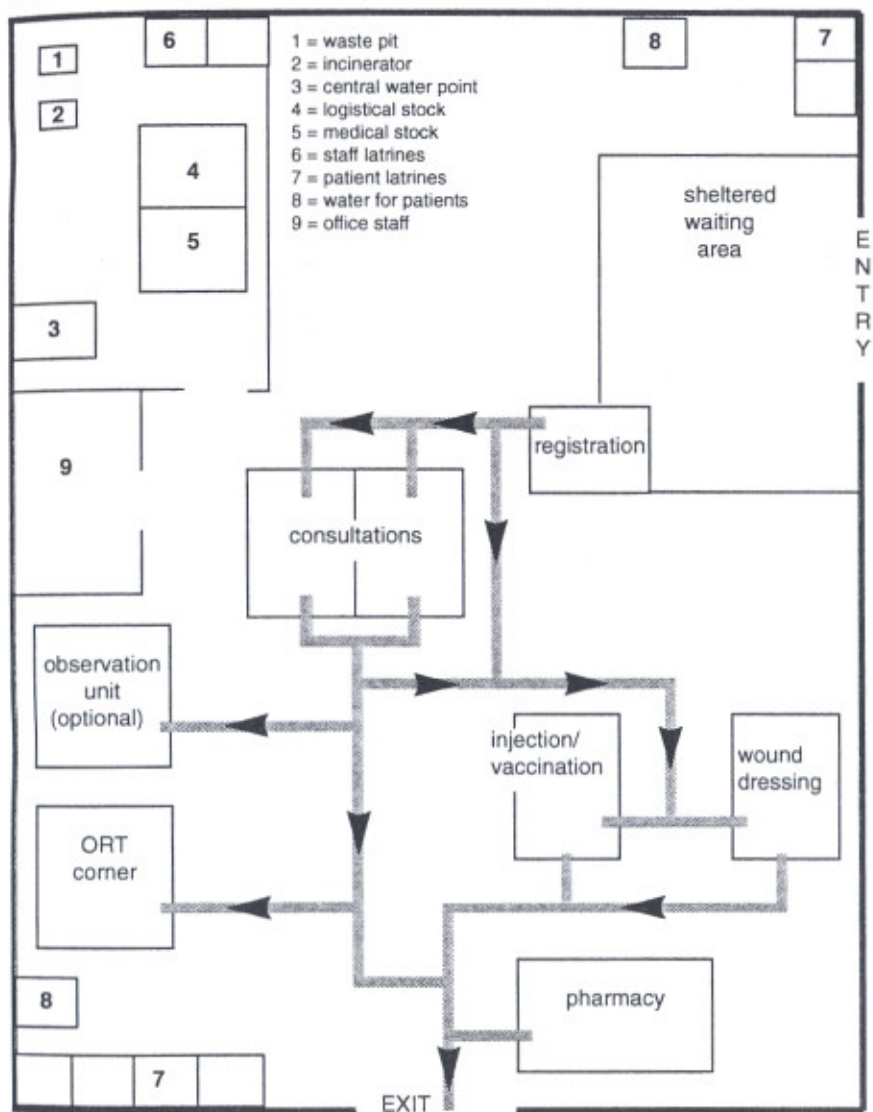
## ANNEX 18

## Layout and patient flow

Total area = 40m x 70m

————— = Patient flow

Sheltered waiting areas consultations and pharmacy not shown



## ANNEX 19

## Check-list estimation of staff requirement

DISPENSARY: .....DATE: .....

SERVICES	OUTPUT OF THE DISPENSARY **	STAFF ACTUALLY PRESENT	STAFF OPTIMALLY REQUIRED
Registration			
Consultations			
Injections			
Dressings			
Sterilisation			
Pharmacy			
Rehydration corner			
EPI *			
Family planning *			
Ante Natal Care *			
Deliveries *			
Minor surgery *			
Inpatients *			
Medical night duty			
Crowd control			
Night guard			
Cleaners			
TOTAL			

REMARKS: Specify the working hours: .....

## \* OPTIONAL SERVICES

## \*\* EXPLANATION OF OUTPUT OF THE DISPENSARY

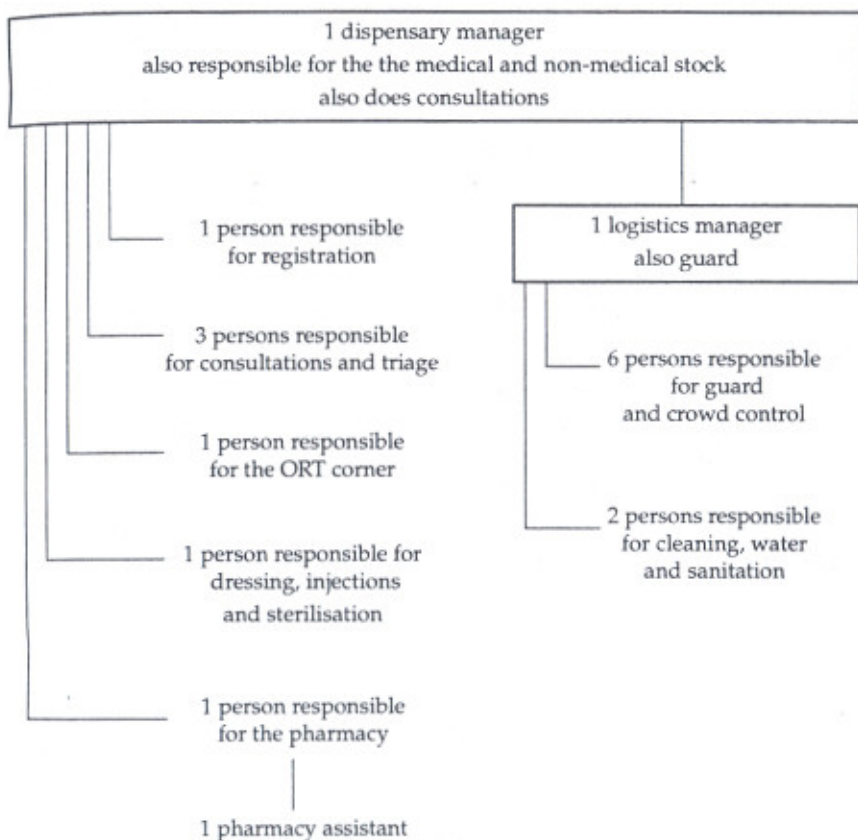
- Registration : Number of new health cards registered during the previous week.
- Consultations : Total number of consultations during the previous week.
- Injections : Total number of injections given the previous week.
- Dressings : Total number of dressings done during the previous week.
- Sterilisation : Number of times per day.
- Pharmacy : = Same as number of consultations.
- Rehydration corner : Number of patients referred to ORT corner during the previous week.
- EPI : Number of vaccinations given during the previous week.
- Family Planning : Number of FP consultations during the previous week.
- Ante Natal Care : Number of ANC consultations during the previous week.
- Deliveries : Total number of deliveries done during the previous week.
- Inpatients : Bed occupancy rate.
- Medical night duty : Related to the size of the dispensary
- Crowd control : Related to the size of the dispensary
- Night guard : Related to the size of the dispensary
- Cleaner : Related to the size of the dispensary

## ANNEX 20

### Organization chart

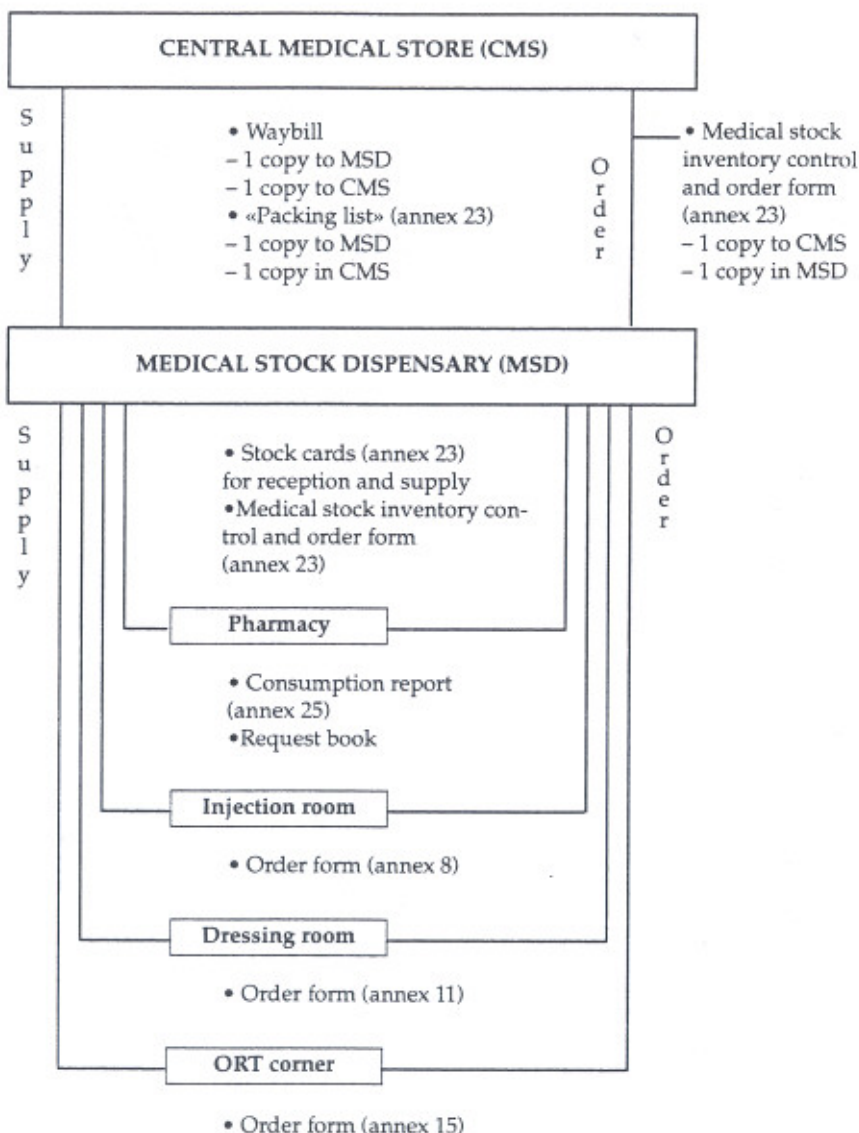
Describes a dispensary for 10.000 refugees:

- Basic services only
- Based on 4 CPPPY (= 770 consultations per week)
- Including 24 hours emergency services



## ANNEX 21

### Drugs flow-chart and registration





## ANNEX 23 • Medical stock inventory control and order form

DATE ORDERED: ..... DATE PREPARED: ..... DATE RECEIVED: .....

NAME: ..... NAME: ..... NAME: .....

SIGNATURE: ..... SIGNATURE: ..... SIGNATURE: .....

ORAL DRUGS	DOSAGE	UNIT	USED	IN STOCK	ORDERED	SUPPLIED	RECEIVED
Acetylsalicylic acid	300 mg	1000 tabs					
Aluminium hydroxide	500 mg	1000 tabs					
Aminophylline	100 mg	1000 tabs					
Amoxycillin	250 mg	1000 caps					
Ascorbic acid (vit. C)	250 mg	1000 tabs					
Chloramine	500 mg	1000 tabs					
Chloramphenicol	250 mg	1000 tabs					
Chloroquine phosphate	150 mg	1000 tabs					
Cotrimoxazol	480 mg	1000 tabs					
Ferrous sulph./Folic acid	200 mg	1000 tabs					
Folic acid	1 mg	5000 tabs					
Furosemide	40 mg	1000 tabs					
Mebendazole	100 mg	1000 tabs					
Methyldopa	250 mg	1000 tabs					
Metronidazole	250 mg	1000 tabs					
Multivitamin		5000 tabs					
Nystatine vaginal	1000.000IU	1000 tabs					
Oral Rehydration Solution	1 ltr	50 sach					
Paracetamol	100 mg	1000 tabs					
Paracetamol	500 mg	1000 tabs					
Phen Meth Penicilline	250 mg	1000 tabs					
Phenobarbital	50 mg	1000 tabs					
Prednisolone	5 mg	1000 tabs					
Probenecid	5000 mg	500 tabs					
Promethazine HCK	25 mg	1000 tabs					
Quinine Sulphate	300 mg	1000 tabs					
Retinol (vit. A)	200.000IU	1000 caps					
INJECTABLES	DOSAGE	UNIT	USED	IN STOCK	ORDERED	SUPPLIED	RECEIVED
Aminophylline	25 mg/ml	100 amps					
Ampicilline	500 mg	100 vial					
Atropine sulphate	1 mg/ml	100 amps					
Benzathine Penicillin	2.4 MIU	50 vial					
Chloramphen. Sodium	1 gr	100 vial					
Chlorpromazine	25 mg/ml	100 amps					
Dexamethasone	5 mg/ml	100 amps					
Diazepam	5 mg/ml	100 amps					
Epinephrine(adrenalin)	1 mg/ml	100 amps					
Ergometrine mal	0.5 mg/ml	100 amps					
Furosemide	10 mg/ml	100 amps					
Glucose 30%	50 ml	100 amps					
Hydralazine	20 mg/ml	20 amps					
Ketamine 10 ml	50 mg/ml	50 vial					
Lidocaine 1%	20 ml	25 vial					
Pentazocine	30 mg/ml	50 amps					



Proc Peni/Benz. Pen	3/1 MIU	50 vial					
Promethazine	25 mg/ml	100 amps					
Quinine	300 mg/ml	100 amps					
Water for injection	10 ml	100 vial					
<b>INFUSIONS</b>		<b>UNIT</b>	<b>USED</b>	<b>IN STOCK</b>	<b>ORDERED</b>	<b>SUPPLIED</b>	<b>RECEIVED</b>
Glucose 5%	500 ml	bags					
Ringer lactate/Hartman	500 ml	bags					
<b>DRUGS EXTERNAL USE/ DESINFECTANT</b>		<b>UNIT</b>	<b>USED</b>	<b>IN STOCK</b>	<b>ORDERED</b>	<b>SUPPLIED</b>	<b>RECEIVED</b>
Benzoic acid 6%/Salic. acid 3%		1 pot					
Benzyl Benzoate Sap.	25%	1 ltr					
Cetrimide 15% / Chlor. 1.5%		1 ltr					
Gentian Violet powder	25 gr	1 pot					
PVP Iodine solution 10%	200 ml	1 bottl					
Tetracycline eye ointment	1%	100 tubes					
Zinc Oxide ointm. 10%	800 gr	1 pot					
<b>MEDICAL MATERIALS</b>		<b>UNIT</b>	<b>USED</b>	<b>IN STOCK</b>	<b>ORDERED</b>	<b>SUPPLIED</b>	<b>RECEIVED</b>
Adhesive tape	2.5 cm	1 pc					
Bandage elastic/crepe	8 cm	10 pcs					
Bandage hydrophyle	7.5 cm	10 pcs					
Cotton wool	500 gr	1 roll					
Dispensing bags	500 pcs	1 box					
Feeding tube disp	CH 5	100 pcs					
Feeding tube disp	CH 8	100 pcs					
Feeding tube disp	CH 16	100 pcs					
Foley catheter ster	CH 12	10 pcs					
Foley catheter ster	CH 14	10 pcs					
Foley catheter ster	CH 18	10 pcs					
Gauze compress non ster	10x10 cm	45 pcs					
Gauze compress sterile	10x10 cm	100 pcs					
Gauze parafine		1 tin					
Gloves exam. non ster	5/M/L	100 pcs					
Gloves surgical ster	6.5	50 pcs					
Gloves surgical ster	7.5	50 pcs					
Gloves surgical ster	8.5	50 pcs					
IV Placement canula	18 G	50 pcs					
IV Placement canula	22 G	50 pcs					
Needle, Luer disp	19 G	100 pcs					
Needle, Luer disp	21 G	100 pcs					
Needle, Luer disp	25 G	100 pcs					
Scalp vein Infusion set	21 G	100 pcs					
Scalp vein Infusion set	25 G	100 pcs					
Surgical blades	22	100 pcs					
Suture, absorb. with need	2/0	1 box					
Suture, absorb. with need	3/0	1 box					
Syringe, Luer disp	2 ml	100 pcs					
Syringe, Luer disp	5 ml	100 pcs					
Syringe, Luer disp	10 ml	100 pcs					
Syringe, disp feeding	60 ml	1 pc					
Urine collection bags	2000 ml	1 pc					

## ANNEX 24•a

## Inventory of the dispensary, non-medical material

DISPENSARY: .....	DATE: .....	
	QUANTITY GIVEN	QUANTITY PRESENT
<b>FURNITURE</b>		
Benches		
Stretchers		
Metal boxes		
Chairs		
Cabinets		
Tables		
Examination tables		
Stools		
<b>OFFICE MATERIAL</b>		
Stapler		
Staples		
Files		
Pens		
Pencils		
Pencil sharpener		
Pencil eraser		
Typex		
Notebook A4		
Notebook A5		
Calculators		
Markers		
Perforator		
Rulers		
Scotch tape		
<b>CLEANING MATERIAL</b>		
Brooms		
Basins		
Towels		
Garbage bins		
Jerrycans of 20 litres		
Jerrycans, pliable with tap		
Soap		
Bucket		
Bucket with lid		
<b>MISCELLANEOUS</b>		
White coats for medical staff		
Blue coats for logistical staff		
Petrol lamps with spare parts		
Jerrycan of 5 litre with petrol		
Torches with bulbs		
Batteries		
Shovels/spades		
Hoes		
Pick axes		
Machetes		

## ANNEX 24•b

## Inventory of the dispensary, medical material

DISPENSARY: .....	DATE: .....	QUANTITY GIVEN	QUANTITY PRESENT
<b>EXAMINATION MATERIAL</b>			
Thermometer			
Tongue depressor, wooden disp.			
Clinical stethoscope, dual cup			
Obstetrical stethoscope, metal			
Sphygmomanometer, adult			
Otoscope mini			
Battery for otoscope			
Bulb for otoscope			
Scale, hanging, 25kg (Salter)+ trousers			
Scale, adult			
Weight for height chart			
Measuring tape, flexible			
<b>DRESSING MATERIAL</b>			
Brush, nail scrubbing			
Forceps, Kocher, 14cm, straight			
Kidney dish 26cm x 14cm, metallic			
Scissors, dressing, 14cm, straight			
Tray, dressing, 30x15x3cm			
Drum, lateral eclipses, diam. 15cm			
Gallipot, 12cm, 100ml			
Scissors, str/bl, 14cm			
Dressing set, 3 instruments with box			
<b>SUTURE MATERIAL</b>			
Blades (surgical knife), No22			
Handle for surgical blades, No 4			
Instrument box with lid 20x10x5cm			
Forceps, dissecting, 14cm with teeth			
Forceps, Kocher, 14cm, straight			
Forceps, Pean, 14cm, straight			
Scissors, surgical, sh/bl, 14cm			
Needle holder, Mayo Hegar 18cm			
Probe, curved, 14cm			
<b>STERILISATION MATERIAL</b>			
Pressure sterilizer, 20-40 ltr, basket			
Pressure sterilizer, 7.5 ltr, complete			
Autoclave tape, roll			
Stove, kerosene, optimus 5			
<b>OTHER INSTRUMENTS</b>			
Tourniquet			
Razor, non disposable			
Razor blades			
Water filter with candles			
<b>BOOKS</b>			
Clinical guidelines			
Essential drugs			

## ANNEX 25•a – Pharmacy daily consumption report

NAME OF THE DRUG (INN) AND DOSAGE	TALLY	Date: TOTAL
Acet.Sal.Acid 300mg	3+6+6+9+3+6+9+9	51
Amoxycilline 250mg	5+5+10+40+15+40+14	129
Chloroquine 150mg	6+14+14+6+14	54
Etc.		

## ANNEX 25•b – Pharmacy weekly consumption report

NAME OF THE DRUG (INN) AND DOSAGE	day 1	day 2	day 3	day 4	day 5	day 6	day 7	Total Week	day 8	day 9	day 10	day 11	day 12	day 13	day 14	Total week
Acet.Sal.Acid 300mg	51															
Amoxycilline 250mg	129															
Chloroquine 150mg	54															
Etc.																

**ANNEX 26****Daily morbidity form**

Name of the structure: .....

Date: ..... (day/month/year) Reported by: .....

- Only one diagnosis per patient.
- The patients who are referred should be marked in the row referred and their diagnosis should be written on back of form.

DIAGNOSIS	< 5 YEARS OLD	≥ 5 YEARS OLD	TOTAL
Non-bloody diarrhoea			
Bloody diarrhoea			
Severe ARI			
FUO/suspected malaria			
Measles			
Suspected meningitis			
War injuries			
Suspected hepatitis/jaundice			
Other			
TOTAL NUMBER OF CASES			
TOTAL NUMBER REFERRED			

Number of persons doing consultations: .....

## ANNEX 27

## Weekly morbidity form (summary per dispensary)

Place: ..... Reported by: .....

From: ..... Till: ..... (day/month/year)

Population living in the camp: .....

• Summary per health facility for 1 week.

• Incidence can only be calculated if the population figure is known

DIAGNOSIS	< 5 years old	≥ 5 years old	TOTAL	Incidence per 1.000	percentage
Non-bloody diarrhoea					
Bloody diarrhoea					
Severe ARI					
FUO/suspected malaria					
Measles					
Suspected meningitis					
War injuries					
Suspected hepatitis/ jaundice					
Other					
TOTAL NUMBER OF CASES					100%
TOTAL NUMBER REFERRED					

Average number of consultations per persons doing consultations: .....

Is there an epidemic? Yes  No  (if yes, fill in epidemic form)

## ANNEX 28

### Case definitions

**These case definitions are examples:** They should be developed or adapted according to the staff's capacity to make a diagnosis, often under difficult circumstances.

1. **Non-bloody diarrhoea:**  
3 or more soft or watery stools per day without blood in the stools (reported).
2. **Bloody diarrhoea:**  
3 or more soft or watery stools per day with blood in the stools (visually confirmed).
3. **Severe ARI:**  
cough **AND** rapid breathing (>50/min. for under fives, >40/min. for older) **WITH** fever.
4. **FUO / suspected malaria:**  
acute onset of fever without any other cause of fever.
5. **Suspected measles:**  
generalised rash **AND** history of fever **AND** cough or runny nose or red eyes.
6. **Suspected meningitis:**  
fever **AND** vomiting **AND**  
for infants: hypotonia or bulging fontanelle or petechial rash,  
for over 1 year old: neck stiffness or intense headache or petechial rash.
7. **War injury:**  
any acute injury resulting from an armed conflict.
8. **Suspected hepatitis / jaundice:**  
acute onset of jaundice **WITH** or **WITHOUT** fever, oedema or ascites.
9. **Other:**  
All other known or unknown illnesses that do not fall into the above case definitions.

**NOTE:** a **suspected** case becomes a **probable** case if there is an outbreak and a **confirmed** case if it is laboratory confirmed.

## ANNEX 29 – Activity assessment check-list

This check-list can be used to evaluate the activities in the dispensary. It can indicate which topics need the most urgent attention, which need some improvement or which are already on acceptable levels.

DISPENSARY: ..... DATE: ..... NAME of the supervisor: .....

### 1.0 GENERAL ORGANISATION:

- |  | YES                      | NO                       | REMARKS |
|--|--------------------------|--------------------------|---------|
| 1.1 Is the lay-out and patient flow optimal                          | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 1.2 Is the quantity and quality of water sufficient for the capacity | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 1.3 Are there sufficient latrines                                    | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 1.4 Is waste disposal (incl. incineration of waste) well organised   | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 1.5 Is the dispensary kept clean                                     | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 1.6 Is there adequate security and crowd control                     | <input type="checkbox"/> | <input type="checkbox"/> | .....   |

### 2.0 HUMAN RESOURCE MANAGEMENT:

- |  | YES                      | NO                       | REMARKS |
|--|--------------------------|--------------------------|---------|
| 2.1 Is the capacity of the dispensary sufficient related to the size and health status of the target population (expressed in CPPPY) | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.2 Is the number and qualifications of the staff sufficient related to the present capacity   | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.3 Is the work load optimal for the persons doing consultations (# consultations per person per day)                                | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.4 Are the salaries standardised  | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.5 Are job descriptions present for all staff   | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.6 Are working schedules (including days off and holidays) present  | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.7 Are regular meetings arranged with staff   | <input type="checkbox"/> | <input type="checkbox"/> | .....   |
| 2.8 Are training needs of staff assessed and subsequent training given   | <input type="checkbox"/> | <input type="checkbox"/> | .....   |



3.0 MANAGEMENT OF DRUGS, MEDICAL AND NON MEDICAL STOCKS	YES	NO	REMARKS
3.1 Is a standardised drug list available	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.2 Are regular consumption reports made	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.3 Is the lay-out and arrangement of the drugs in the medical stock optimal	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.4 Are stock cards correctly used	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.5 Is the order, supply and receipt system functioning well	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.6 Is the internal supply system well organised	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.7 Are the drugs correctly dispensed to the patients in the pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	.....
3.8 Is the consumption report in the pharmacy correctly filled out	<input type="checkbox"/>	<input type="checkbox"/>	.....
4.0 EPIDEMIOLOGICAL SURVEILLANCE:	YES	NO	REMARKS
4.1 Are standardised daily and weekly morbidity forms correctly filled out	<input type="checkbox"/>	<input type="checkbox"/>	.....
4.2 Are case definitions correctly used	<input type="checkbox"/>	<input type="checkbox"/>	.....
4.3 Is feedback given to the dispensary	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.0 ACTIVITIES IN THE DISPENSARY:	YES	NO	REMARKS
5.1 Is triage well organised	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.2 Are patients given an individual health card	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.3 Are history and physical examination well done	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.4 Are correct diagnoses made and treatment given according to clinical guidelines/protocols	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.5 Is referral of patients well organised	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.6 Is registration of the consultations well kept	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.7 Are injections correctly given	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.8 Is there a good registration system in and reporting from the injection room	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.9 Is wound dressing correctly performed	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.10 Is there a good registration in and reporting from the dressing room	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.11 Is treatment in the ORT corner given properly	<input type="checkbox"/>	<input type="checkbox"/>	.....
5.12 Is there a good registration system in and reporting from the ORT corner	<input type="checkbox"/>	<input type="checkbox"/>	.....

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- **Formation des personnels de santé** (french, spanish)
- **Refugee health, MSF-MacMillan** (english)

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In this guideline, we will provide only information that is needed to organise and supervise a dispensary during an emergency situation. It will focus on the emergency phase but will provide some information related to the post emergency phase. This has been chosen as a priority because, in practice, a dispensary is usually found to be a common central element among the various curative and preventive medical interventions for people in precarious condition.

This guideline is meant for the medical person who is responsible for the organisation and supervision of the dispensary. However, different sections of this guideline may also be used by those who are involved in the planning of dispensaries or by staff who are responsible for providing the various services in the dispensary. All forms used in the dispensary and the job descriptions of key staff can be found in the annexes. They will need adaptation for particular situations.

Some of the annexes of this guideline are therefore available on diskette, PC, Windows 95, Word 7.0.