



**PRACTICAL GUIDELINES
FOR THE TRAINING OF HEALTH STAFF**

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This document should undergo criticisms and remarks from its users. We therefore invite you to send them to us so as to ensure that the evolution of this guide is as close as possible to realities in the field.

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Contents

Introduction	6
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CHAPTER I

Situation Analysis

Identifying the Training Requirements	9
Feasibility study	12

CHAPTER II

Designing a Training Programme – The Different Stages

Defining the Training Objectives	17
Defining the Content	20
Teaching/Learning Methods	21
Student Assessment Methods	28
Planning a Training Programme	33

CHAPTER III

Organisation of a Training Programme

Selection of the Participants	37
Trainers' Duties	38
Training Contract	40
In-service Training	41
Location and Resources	42
Budget/Financial Agreements	43
Evaluation/Programme Follow-up	45
Reports/Hand-Over	47

CHAPTER IV

Specific Aspects of the Training Programme

Certification	49
A Word of Caution	50

Annexes	52
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Bibliography	88
---------------------------	----

Introduction

The idea of training staff is quite natural. It is based on a desire to share knowledge ; it is an active and noble approach that is inspired by our culture and is part of the Hypocratic oath.

In general, it stems from the observation of shortcomings in the competence or performance of local staff, including both skilled staff and volunteers, as is the case in instances of displaced populations.

It is advisable at this point to carefully analyse these needs in order to communicate what is actually due to a defect in or a lack of training and that which comes under the scope of other causes for which training will not have an impact.

Unconsciously, the wish to leave a personal trace of our presence naturally motivates us to participate in training actions.

However, we must realise that good intentions in this area do not suffice and that, at times, they can be detrimental.

Training is not a trivial activity. It is important both philosophically and culturally.

It includes an obligation to achieve results and requires certain skills on the part of its organisers: the teaching quality of a training action depends on the validity of its objectives and the adaptation of the content and training methods to the people chosen, as well as to the general context. Linguistic and cultural obstacles are often underestimated and can affect the result.

Training effectively contributes to resolving health problems if it is used wisely.

It may be seen as one of the means of providing assistance, just like the provision of medicine or the sending of medical teams. Improving local staff skills to promote greater effectiveness and greater autonomy is often the essential condition of objective medical support.

It is rarer for training to be the very objective of humanitarian action, nevertheless the training quality will have a direct impact on the medical care provided to groups and individuals.

In countries undergoing crises, which are of most interest to us, material and human resources are always limited and it is important to optimise their use. It is necessary to make choices among all of the needs in order to select those that appear to be priorities. The training objective must be adapted to the mission's objective and must take account of the overall situation: this compromise must be clearly explained to those involved and must be kept in mind as the mission evolves.

Training can be conceived, depending on the case, from the simplest type of training to the most complicated:

- It may be conceived as an informal exchange, as is practised daily between a doctor, a nurse, a sanitary technician and the people she/he she works with: this «bedside» training is where people learn by example and demonstration, dialogue and observation.
- This type of training may take on a more organised aspect, which is more formal when it is part of the management and supervision activities of a certain category of personnel. Regular sessions of theoretical teaching and practical demonstrations are often organised within this framework.
- At a more advanced stage, the mission's core activity can consist of training or refresher courses for medical personnel in the context of a training programme per se.

The time devoted to training is constantly underestimated. Consequently, the set-up time for the conception, realisation and follow-up are almost always insufficient. It is always more difficult to organise training than one may think at first and it requires a prolonged follow-up period.

Training often forms an integral part of the work carried out by each volunteer working in the field. However, doctors and nurses, as well as the other professionals working in developing countries, are generally poorly prepared for the role of trainer.

Knowledge in a given domain is, of course, essential but seldom sufficient to carry out quality training : though naturally it would be dangerous to claim to teach what one does not know, even to teach what one does know requires a coherent and well organised teaching approach.

When conceiving a training programme, whatever the level of structuring or duration, it is necessary to go through the stages described in this guide.

The first step is to evaluate the following : general context/training needs/feasibility.

Often the desire for immediate results means that training steps are skipped. Actually, the majority of the failures and/or problems encountered during training programmes are due to the absence of an analysis of the situation and to the non-respect of these prerequisites.

This guide is addressed to doctors and other medical staff in charge of training and supervising local personnel. It may also be used for non-medical personnel interested in training since it provides a general direction, structure and methodology for teaching, whatever the speciality taught. Each chapter can be read independently but in order to conceive a training program, it is advised to follow the chronological order of the guide.

This guide uses a simple and precise vocabulary which should first be assimilated in order to speak about training, and includes many in situ examples gathered in the appendices.

More specialised works are proposed in the reference bibliography which constitutes the last part of the guide.

CHAPTER I

SITUATION ANALYSIS

Identifying the Training Requirements

Feasibility Study

Identifying the Training Requirements

In a given medical or health situation, various needs may be observed:

- infrastructure and logistical needs
- supplies and equipment needs
- medicine needs
- administrative and financial needs
- as well as training of personnel.

The training needs are defined by the quantitative or qualitative discrepancy between the number and/or the observed level of competence of the health personnel and the number and/or level of competence necessary to respond to the health problems.

The identification of training needs is based on three types of analyses that allow the assessment of this gap:

Context Analysis

A context analysis should be carried out to determine whether the discrepancy is caused by a quantitative or qualitative insufficiency of health personnel.

• A **quantitative insufficiency** exists as the result of some or all of the following factors:

- An insufficient number of trained personnel (production problem)
- Poor distribution of health personnel amongst the health structures
- Poor distribution of personnel within a given health structure
- Poor organisation of work (distribution of tasks)

The first two factors generally stem from the human resources policies of the Ministry of Health or of the local authorities. A production problem occurs when there is either a partial insufficiency of professional health workers or a total absence of a given category of health workers. In the first case the problem can be resolved by increasing the number of personnel. In the latter situation specific training programmes should be implemented. Appropriate management training should be provided to the health personnel to resolve the poor distribution of personnel within a given health service or the poor organisation of work.

- A **qualitative insufficiency** exists as the result of some or all of the following factors:
 - insufficient initial training (i.e. too short) or inappropriate training, which does not respond to the health needs
 - a lack of ongoing training or educational supervision.

In the event of qualitative insufficiency it is essential to carefully analyse the work carried out by the personnel.

Analysing the Work of Health Personnel

A careful analysis of the tasks performed by the personnel will help establish why certain tasks were either not performed or poorly performed. The following two methods will help in this analysis:

1. **Individual and group interviews and surveys** should be conducted with staff, the health authorities and possibly also with some members of the local population to determine what the training needs are.

2. Observation

The personnel's competencies may be assessed by simple observation to determine what is causing the discrepancy between the observed practices and expected standards. A more structured approach, however, is preferable : standardised checklists can be used during observations to help determine what is causing the discrepancy. These checklists can be modified to match the acceptable professional standard with the level of performance that can realistically be achieved in the given context (desired reference) and will prevent unrealistic professional standards from being imposed.

This initial assessment of the personnel's competencies will help to set the learning objectives of the training programme and measure the progress later on.

Documents

The following two types of documents can also be of use when carrying out a situation analysis:

- Official documents (i.e. job descriptions, national training programmes and national health policy documents, such as the organisational chart of the national health system and the country's health policies) can help determine specific training needs, the room for manoeuvre within the official directives or to legitimise the training activities to be undertaken. It may be necessary to work on a national level to change those directives which are not consistent with the analysed health situation.
- Educational material from other NGOs or institutions that describe previous training courses (objectives, programmes, course outlines, evaluations, etc.).

Setting priorities

1. Requirements, of whatever kind, must be ranked in order of priority. They cannot be seen in absolute terms but within a context of shortage and uncertainty where choice is necessarily restricted. Training requirements are no exception to this rule.
2. A situation analysis of the project will determine the relevancy of implementing a training programme. Prioritising the needs will ensure that the most fundamental, pressing and serious needs as well as those that lend themselves most readily to training will be addressed first.

Given that training should be integrated into the general aims of the project, this preparatory work will involve the various levels of policy and technical decision-makers.

In conclusion, when a given health situation is analysed, care should be taken to ensure that the problems encountered are not mistakenly attributed to a need for training.

Lack of motivation associated with financial considerations or the organisation of work (overloading), poor material conditions (inadequate equipment) cannot be overcome by training programmes alone.

Feasibility study

The aim of a feasibility study is to establish whether the right conditions exist to implement a training programme:

The geopolitical context

The geopolitical context should be stable enough to allow to carry out a training programme. A highly unstable situation may mean that the training programme will have to be postponed or its planned duration modified.

The request for a training programme

Various actors, including the medical personnel themselves, the local authorities, other NGOs, the Ministry of Health, international organisations, donors etc. may request that a training programme be implemented.

It is necessary to ensure that a request exists and that it is relevant to the identified requirements. It is often the case that training programmes having no bearing on real needs are nevertheless provided as a result of financial or political pressure.

Working Conditions for trained personnel

Once trained, personnel should have the means (i.e. equipment) to provide professional health care and be offered suitable working conditions (i.e. financial compensation and public/professional recognition).

Human/material/financial resources

It is important to determine which staff members are available and competent to train and supervise students. Furthermore, a suitable location must be found as well as enough equipment and educational material. A budget must be prepared and funding obtained for the duration of the programme.

In addition to these four conditions, there are training-specific conditions:

The number of students

The trainer-student ratio should not exceed one trainer for every fifteen students.

Selecting the students

Students should be carefully selected so as to compose a homogeneous group of students and to minimise the likelihood of any personal bias creeping into the selection process. The selection criteria should be based on the training needs and be clearly defined. (see Chapter III).

Duration of training

The duration of a training programme depends to a large extent on operational grounds and more specifically the resources available. As the duration of a training programme is generally underestimated, a careful assessment of the following factors will help establish a more realistic timetable:

- whether the training programme is being taught full or part-time
- the basic-level of the students compared to the set objectives
- external events such as national holidays, climatic factors, etc.

Type of training

The feasibility study will help determine the most appropriate type of training programme given the trainer/student ratio and the set learning objectives.

There are three types of training:

- «bedside» training
- *ad hoc* training, which can consist of either the initial training or a refresher course dealing with specific problems (i.e. a vaccination campaign or a cholera epidemic)
- complete professional training.

Drawing up a training contract (see Annex 1)

Where possible, a training contract, which has been approved by the authorities, should be drawn up between the students and trainers. The contract should include:

- internal training rules specifying the rights and duties of students during the training, including sanctions in the event of absenteeism, professional errors, etc.
- the professional commitment expected of students once they have completed the training programme
- any means provided by the organisation responsible for the training

A training project proposal should be compiled and include:

- a summary of the health situation including a list of prioritised needs
- a feasibility study that focuses on the conditions listed above.

The decision whether to undertake a training programme should be based on the information contained in a training project proposal.

CHAPTER II

DESIGNING A TRAINING PROGRAMME

THE DIFFERENT STAGES

Defining the Training Objectives

Defining Training Content

Teaching/Learning Methods

Student Assessment Methods

Planning a Programme

Defining the training objectives

Whatever type of training is envisaged, it is imperative to determine the objectives. The definition of these objectives can be obtained by examining the discrepancy between the amount and the level of competence expected and the amount and level observed. Professional expertise should, in theory, help in reducing this gap and thus fulfil needs.

Questions have to be answered: who should be trained and what for? Job titles, therefore, have to be defined along with the duty or duties and the skills of the personnel to be trained. All these elements allow the job description to be drafted, a document essential to the construction of the training programme and to the administrative positioning of personnel.

Titles and Functions

The general objective of any training programme is to prepare personnel to a sufficient level of competence for a given work position. Title and functions define this work position. Titles given to medical personnel often vary widely and can cover various duties according to the programme. It is therefore necessary to specify the title by the duties intended for that particular member of staff.

For example, at the time of a cholera epidemic, the *cholera nurse* (title) is responsible for care to patients with cholera in an isolation and treatment camp (function).

To give another example, the word *matron* is used in different ways according to the country.

In some countries, this word is used for traditional midwives in the literal sense of the word; that is to say women responsible through a traditional social process for helping other women when they give birth. Their role is social and cultural; they belong to a special caste acting in accordance with the rituals and representations of a particular group or clan.

In other countries, the word *matron* is used for auxiliaries trained on the job or for those who have followed an official programme. These auxiliaries are not traditional midwives but medical staff dependent on their government department and trained within this framework. They are officially supervised by midwives (for example, in Sudan).

Elsewhere, *matrons* are traditional midwives working in medical units under the supervision of qualified midwives (e.g. Guinea Conakry, Mauritania) following decisions and laws implemented by the government. Their practice is recognised

solely within this framework, and all others are either ignored by official bodies or, in some cases, condemned by the authorities. They are sometimes employed as cleaners within these medical structures.

Some French speaking countries also use this word to mean the head midwife or the supervising midwife of a ward or, indeed, of an entire department.

Competencies and Tasks

Competencies and tasks constitute a second level of the definition of training objectives. More precise than job titles, they indicate what personnel must be able to do by the end of their training programme. Pedagogical tools, such as the PUIGER System,(cf. annex 2) can determine professional competencies in relation to health care needs.

However, competencies are complex.

They cannot be acquired immediately. Different tasks must be mastered beforehand. Each competency must therefore be broken down into a group of tasks in order to teach them in a progressive manner.

The desired competency and tasks must be realistic and relevant to the field and its needs. One must be able to observe and evaluate them.

The formulation of competencies corresponds to the objectives of the training programme. Each competency or task should complete the sentence, «At the end of training programme, the participant must be able to...»

Example:

- Title: Cholera Nurse
- Functions : Caring for cholera patients in isolation camps.
- Competency : At the end of training programme, the participant must be able to care for a simple cholera case.
- The different tasks to be taught in order to acquire this competency can be listed as follows:
 - **Check** patient's vital signs according to doctor's instructions
 - **Record** this information on the surveillance sheet
 - **Note** the number of bowel movements and vomiting episodes
 - **Alert** the doctor if the patient's condition deteriorates.

Job Description

A training programme can cover a job description either entirely or in part.

The goal of a job description is to list in writing, and precisely, the competencies (activities), tasks and responsibilities of any post or function. The description can also mention the rights and duties of the personnel as well as detailing the work plan (cf. Appendix 3).

It can help to improve the relationships between health team members by specifying their respective roles.

It can also serve as a clear contract between supervisors and personnel in two ways: as a basis for a job contract and also as a reference in case of problems or conflicts.

Job descriptions should be:

- **Realistic and adapted to the work context**

- It will vary according to whether a nurse works in a dispensary or in a hospital as well as whether he or she works in paediatrics or in minor surgery.
- When drawing up a job description, it can be useful to consult the entire health care team, the personnel concerned as well as their supervisors.

- **Put down in writing**

- A verbal agreement about a job description is not enough. A copy must be kept for reference if the need arises.

- **Evaluated regularly**

- It must evolve with time, according to changing needs, the work plan, etc.

Defining the Content

The content encompasses the knowledge, actions and attitudes which must be taught in order to attain the objectives of the training programme. In other words, it is the choice of sufficient and necessary information, which is important in the teaching of professional tasks. It should be stated that it is very difficult to evaluate what information is necessary and useful in order to master a given task. It is important to avoid the two extremes of a heavy reliance on textbook learning or, at the other extreme, of an overly simplistic approach to teaching.

The selection of information to be taught can be made either:

According to the time available and the result required

Due to the time factor, we are often in need to select the most practical information while leaving aside the basic rudiments which are not directly related to the task in hand. For example a medical assistant needs to recognise the symptoms of a given illness in order to make a diagnosis, but a nurse does not necessarily need to know the names of all the muscles in order to give injections.

If the aim of the training programme is to ensure that the medical personnel will be operational (i.e. provide patient care and monitor patients) within a short period of time, less emphasis should be placed on theory (anatomy and physiology) and more on the teaching skills with the aid of procedure checklists. This approach does, however, run the risk of producing automatic reactions to given situations.

According to the basic-level of the personnel to be trained

The knowledge to be passed on to the students should be adapted to the students' general level of education.

For example: certain concepts concerning dosage, rates or dilution can only be taught to students who have an understanding of basic mathematics. If students do not have this basic understanding, they can either be taught the basics of elementary mathematics or alternatively they can be taught how to use standardized aids. These aids include standardized weight tables or prescription tables that list the number of tablets or dosage to be administered.

According to the desired level of independence

Independence in a professional setting is the capacity to solve problems unaided. To help students become effective independent practitioners, trainers should teach students how to draw from their own reservoir of knowledge (observational skills, clinical procedures, how to collect information) to solve the problem at hand.

Teaching/learning methods

General principles

Teaching adults should be as interactive and dynamic as possible. It has been proven that this approach facilitates the learning process and promotes the application of acquired knowledge to solving problems. Interactive teaching is effective in all cultures.

When we concentrate, we retain approximately:

- 10% of what we read
- 20% of what we hear
- 30% of what we see
- 50% of what we see and hear at the same time.
- We retain 80% of what we say and 90% of what we say while involved in an activity that requires our participation.

Training courses should therefore place more emphasis on applying knowledge to concrete situations (real life context), individually and in groups, to stimulate the student's retention rate as much as possible.

It is now generally recognised that teaching must take into account what the student already knows in order to reinforce this knowledge and correct any previous misconceptions. This stage is important in so much as misconceptions that are not brought to light and discussed may persist and prevent the acquisition of new knowledge, leading to professional errors.

All learning objectives can be attained with the aid of one or more teaching/learning methods.

To facilitate the teaching of tasks, it is important to establish whether the task requires specific knowledge (intellectual skills), practical skills, professional attitudes (communication skills) or a combination of all of three. As highlighted by the following examples a range of educational methods can be used to teach each of these skills.

To make the teaching of tasks easier, we need to determine the area of learning which best suits the task, which may be knowledge (intellectual skills), practical skills or attitudes (communication skills) ; each of these calls upon a different teaching method. Two cases can be envisaged:

- the task belongs to one particular domain, such as 'interpret a lung x-ray in frontal and profile image'; in this case the chosen method will rely on intellectual learning, for example, reading a series of normal and pathological images.
- or the task belongs to several different learning areas, as is the case of most skills which call for knowledge and practical skills ; in this case we need to determine the dominant field to avoid wasting time on teaching things which are not directly relevant to the current task.

Example: «Giving an intravenous injection» applies to the field in which practical skills predominate and the chosen method would be a practical work session with a dummy before going out into a real-life situation. A short theoretical lesson could, of course, be added.

It is possible that one task could apply to two fields of equal importance in which case the teaching/learning methods applicable to those areas would be followed.

Example: «Persuading a mother to breast feed her child» can be taught in a work group by making a list of the arguments in favour of breast feeding. One can also study videos to teach skills and use role play for working solely on communication skills (attitude).

Regarding competencies, it is the time spent in real-life situations (in-service training) that has proved to be the best method for enabling the participant to make the connection between competencies.

The following descriptions are examples of methods often used in the field that have proved their worth. This list is not exhaustive and other methods can be found in the bibliographic references.

KNOWLEDGE (Domain of intellectual skills)

1) Lectures

Lectures are suitable for teaching theoretical knowledge if they build upon the existing knowledge of participants.

Some lecturing techniques:

- Before the lecture :
 - When preparing the lecture room, arrange the chairs in a circle or semicircle, which will encourage communication.
 - Prepare the teaching material : lecture handouts, visual aids (posters, blackboard, slides, etc.).
- During the lecture:
 - Speak loudly and slowly, use simple language and many examples to illustrate ideas.
 - Give students time to ask questions.
 - Write the key words and phrases on the blackboard.
 - Divide the lecture up into 20 minute sessions with breaks in between.
 - Test the students by means of oral and/or written questions to see whether they have understood the lecture.
- At the end of the lecture:
 - Summarise the main points.

2) Group Guided Integration Method (G.G.I.M)

This method can be used instead of lectures to teach a subject that requires higher-level intellectual skills such as reasoning or intellectual approach.

For example: a 50 minute lecture can consist of the following activities:

- The trainer writes the objectives and definitions of the new terms on the blackboard.
- When students arrive, they take note of the information written on the blackboard.
- The trainer subsequently lectures for 15 to 20 minutes and requests that the students not take notes.
- The trainer gives the students 10 minutes to write down the main points of the lecture in a chronological order.
- The next 10 to 15 minutes are taken up by groups of 3 to 4 students comparing their notes.
- Students complete their notes and ask questions during the last 15 minutes.

3) Snowball Group Discussions

- The trainer introduces the topic to be discussed. For example: «indications for inserting a stomach tube».
- Students have 10 minutes to think about the subject individually.
- Students pair off and have 10 minutes to exchange their ideas.
- Then in groups of four they discuss their ideas for 10 minutes.
- The size of these groups are doubled : groups of eight persons discuss their ideas for 10 minutes.
- Each group assigns one person to present her/his group's ideas and their summary to the whole group.
- Remarks and summary by the trainer.

4) Clinical Case Studies

The following methods are particularly suited to teaching reasoning and clinical skills (work-up diagnosis and prescribing treatment):

- Clinical case study
 - The trainer provides the students with a brief background document on a simple and realistic case.
 - The trainer chooses 4 to 5 themes from the case and presents them in the form of questions to the group i.e. «What treatment would you prescribe for this patient? What complications could arise?»
 - The trainer gives each group a theme that they have to discuss.
 - Each group assigns one person to report her/his group's findings to the whole group.
 - The trainer comments on the work of each group and summarises the main points.

- Cross Case Studies
 - The trainer divides the students into groups and asks them to draft a clinical case that raises 3 to 5 questions (this should take approximately 90 minutes).
 - Group 1 answers Group 3's questions, Group 2 answers Group 1's questions, etc.. The trainer asks each group to make a list of the missing information that is needed to answer the questions (it is unlikely that the individual groups who thought up the cases, would have thought of all the information required to answer the questions). Group 1 subsequently asks Group 3 to provide additional information, etc..
 - Each group answers the questions once they have all the necessary information.
 - Each group assigns one person to report her/his group's findings to the whole group.
 - The trainer comments on the work of each group and summarises the main points.
- Patient Circuit
 - The trainer prepares a case history and presents it to the students, who have been divided into groups.
 - The trainer asks each group to come up with questions that they would ask during a patient interview.
 - The trainer answers the questions that the individual groups have prepared: the trainer should only give as much information as explicitly requested in the questions.
 - The trainer asks each group what the appropriate clinical examinations would be i.e. which organs to examine.
 - The trainer answers the questions of each individual group concerning the clinical examinations («Are there any cutaneous lesions?» Answer – «Yes, the patient has scabies.» «Is the patient suffering from splenomegaly?» Answer – «Yes, spleen enlarged by a width of 2 fingers»).
 - The trainer asks each group which additional tests they would request for the patient.
 - The trainer tells the students the results of these additional tests, if the test results are relevant to the given case. If they are not relevant, the trainer informs the students that the test was not relevant for this patient.
 - The trainer asks each group to determine what treatment is required and what follow-up is needed.
 - The trainer summarises the main points.

The knowledge base of the students can be updated after each question, or alternatively the groups can be allowed to work at their own pace.

If the exercise is allowed to run its full course, the groups can assign a spokesperson to present her/his group's work and the findings of each group can be compared with the other groups.

PRACTICAL SKILLS (Techniques and procedures)

Demonstrations and practical work are the most appropriate methods to teach practical skills.

1) Demonstrating a given task allows students to observe how to perform that task. The basic principles of giving a demonstration are: the demonstration must be correct; the demonstration must be visible to all students ; ensure that students are provided with all the necessary information to perform the task (procedure checklists, etc.) and explain the demonstration step by step (see annex 4).

Demonstrations can either be simulated or real.

2) Practical work allows students to practice the techniques and procedures, which enables them to progressively acquire the necessary manual dexterity.

The following should be provided:

- Procedure checklists
- Medical material
- Simulation equipment (dummies, etc.).

Students should ideally work in pairs so that they can assess each other with the procedure checklists. Even if the students performed the exercise correctly the first time, the trainer should make sure that students repeat the exercise several times.

There should be at least 1 trainer for every 10 students to ensure that the session is effective and that students are given feedback on her/his work.

Simulation exercises should be as real-life as possible.

Example : students can practice intramuscular injections on oranges.

3) Bedside teaching.

Learning of tasks in the working environment must be supervised. The national or expat clinical tutors are responsible for ensuring that their students (one or two students per tutor) get to practise what they have been taught in the practical work sessions.

Example : taking a patient's temperature or blood pressure, doing an abdominal palpation.

ATTITUDES (Domain of communication skills)

The correct attitude for health personnel carrying out functions cannot be dictated.

• «**Role plays**» are very valuable in teaching communication skills and the right attitudes, because students can assess themselves when they do role-plays:

- The trainer informs the students what task is to be performed (for example: trying to convince an unwilling mother to bring her child to a vaccination clinic).
- The trainer defines the setting and situation.
- The trainer selects students to act out roles and provides players with a realistic description of the role: her/his general and particular level of knowledge on the given subject and some details of her/his personal background.

- The trainer provides the person playing the role of the health worker with some background information on the context and the other persons involved.
- Those assigned with roles subsequently role-play for ten minutes at the most.
- After the role-playing, the players are given the opportunity to discuss what they experienced during their role-plays.
- Discussion with the players and other students on how the objective was attained.
- The trainer summarises the role plays.
- The scene should be performed several times with different students to improve on the performance.

A word of advice:

- Only the players should be allowed to comment on their own behaviour or give others their express authority to do so.
- The trainer should ensure that comments and observations from the group are not directed at the players. The trainer should draw general conclusions from the example provided by the role-plays.

Example : during a role play the attitude of a student actor provokes the other role players (Family) to become aggressive. An observer in the group asks: «Why did you react in such a way?»: The trainer should rephrase the question by asking the group: «What professional attitude could be adopted to limit the aggressiveness of a Family ?»

• **Round tables:** the aim of round tables is to encourage a discussion amongst the students on a specific topic. Round tables allow students to discuss their experiences. The trainer should attempt to highlight the right attitudes and principles from the examples given by the students :

- The trainer chooses a clearly defined objective or theme. For example: health students in the Masisea region of Peru could discuss the following « Why do women stop breast-feeding their children when they have diarrhoea? »
- The trainer chairs the discussion, which should last for approximately one hour, encouraging the students to talk freely. The trainer keeps the discussion focused on the topic and takes note of the important points raised.
- The trainer asks the group to summarise the discussion.

Students' feedback on teaching/learning methods

Irrespective of the teaching/learning methods used, it is important that the trainers measure their effectiveness and teaching skills. Assessing the students' competencies is a good indicator of how successful the training was, but it is also useful to get feedback from the students on their trainer to determine the quality of the teaching and the trainer–student relationship.

Student feedback on their trainers is generally a good indication of:

- the course content
- the (lack of) competence of the trainers in one or more teaching methods
- the trainers' relationships with her/his students
- the group dynamics
- the general organisation of the courses/sessions.

The students' feedback will help the trainers to understand certain reactions, any differences of opinion, unfavourable opinions or the causes of any embarrassment. This feedback may lead the trainers to question their methods, relationships with the students as well as the organisation of the course. It may also result in modifications being made to the programme.

If the students generally appear to be satisfied, trainers should not be lulled into believing that there is no need to improve her/his teaching. In some cultures, dissatisfaction is never expressed.

Student Assessment Methods

Assessing the students' acquired skills is a crucial element in any training programme. The assessments should clearly show whether the students are capable of performing the tasks they have been trained to perform. Student assessments should be designed in accordance with the teaching/learning methods and at the same time to ensure that the assessment method and actual assessment is relevant to the training programme.

General principles

The correct answers, procedures and attitudes, as well as the acceptable level of performance of the students, should be defined before the assessment takes place to prevent any bias.

The assessment process should satisfy the following requirements :

Validity

Does the assessment measure what it is supposed to measure?

Example:: to assess whether nurse A can take a patient's temperature correctly, the nurse should be asked to perform the actual task and assess her/his performance with a rating form instead of being asked to tell verbally or in writing how to perform the task. It is more important to check that the nurse knows how take a patient's temperature correctly than to see if s/he is familiar with the academic definition.

Reliability

Does the assessment produce consistent results ? The reliability of any assessment is the consistency and precision with which it tests what it is supposed to test.

An assessment can be considered reliable:

- If there is a consistency in the results between examiners. It is therefore very important to use checklists, observation charts etc.
- If the grades are consistent over time: the same test should receive the same grade when marked by the same trainer even if the trainer grades the same test a few hours later and is very tired.

It should be noted that all tasks must be assessed to establish whether a student is competent or not.

Example:: if a student is supposedly capable of checking the vital signs of a patient, s/he should be assessed on her/his ability to take the pulse/respiratory rate/ blood pressure, etc. of a patient.

Objectivity

The objectivity of an assessment depends on the extent to which the different examiners agree on what constitutes the right answer(s), a correctly performed task, the right attitudes as well as on the marking system. To ensure a high level of objectivity, examiners should develop assessments as a group.

Practicability

Is it practical in terms of time and resources ? Assessments should not be complicated in their design: they should be easy to organise and take the available resources into account.

Types of Student Assessment

There are two types of assessments:

Formative Assessment

Formative assessments are generally part of a continuous assessment process. They are designed to inform the student about the amount s/he has to learn before achieving her/his educational objectives. The aim is not to grade a student, but inform her/him whether s/he masters a given task or not. Formative assessments also allow the trainer to check and adapt her/his teaching methods and to advise the students appropriately.

Summative Assessment

A summative assessment certifies that a given competency has been attained. Summative assessments are graded and designed to prevent incompetent personnel from practising. Continuous assessment is preferable to avoid the unnecessary stress of a final examination.

Acceptable level of performance

The assessment process determines the success or failure of the student. Success will depend on the performance criteria, which are based on the standards set by the trainers and the organisation they represent.

These standards form the acceptable level of performance. Setting standards will prevent students from being compared to each other, which could result in a student passing simply because s/he is the best in a weak group. Setting standards also ensures that all competencies count, otherwise students, who are good in one area, but bad in another, could still pass.

Example:: Having a good infusion technique can not compensate for not being able to insert a urinary catheter correctly.

The competencies of a student are certified if s/he attains the set standard or acceptable level of performance for all tasks. This acceptable level of performance should be high given that the health of patients is at stake.

Example : An injection has either been correctly given or not. A health professional should not pass if there is a 50% chance that s/he might cause an abscess.

Assessment methods

The format and content of assessment methods should be consistent with the training objectives and the teaching/learning methods used :

Example : if preparing ORS was taught in a practical work session, this task should be assessed in the same manner or in a real-life situation.

In terms of content, it is important to check that students know the right information. Trick questions or overly detailed ones will not provide the trainer with any insight into the real competency of her/his students.

Specific assessment methods are used to assess the three domains (knowledge, practical skills, attitudes).

KNOWLEDGE

Written examinations

- General considerations:
 - A written examination should not contain any essay type questions, because they are very difficult to grade objectively and therefore not very reliable.
 - The questions should be clearly stated, unambiguous and should be pre-tested on other staff members, who are not involved in the training programme.
 - A structured marking sheet, which should be compiled at the same time as the questions, should be used to grade written tests. The examiners should agree on the acceptable answers and on the weighing system.

Assessing knowledge involves testing various levels (memorisation, interpretation of data and problem-solving), which can be tested by means of:

Memorisation

- MCQs (multiple choice questions) or OSAQs (open and short answer questions), which are memory tests.

An example of an MCQ: « The following can be attributed to the fact that an injection has been given using a non-sterile needle ? » (one or more answers possible):

- a - paralysis of the sciatic nerve
- b - an abscess at the point of puncture
- c - a local allergic reaction
- d - a deep haematoma
- e - HIV sero-conversion

Acceptable answers : b, e

An example of an OSAQ: « List the three most frequently observed clinical symptoms of a malaria attack »

Acceptable answers: fever, shivering, sweating

Interpretation of Data

- Questions on clinical cases or concrete situations allows the trainer to assess the student's ability to piece together data.

This method is particularly appropriate in the clinical context : association of clinical signs toward diagnosis. It is also appropriate in diagnostic investigations: slide interpretations, blood test interpretation etc. [see annex 5.1].

Example: A thirty year-old woman is admitted to the emergency room because she has had a pain in her right iliac fossa for several hours. She can not remember when she had her last period and has never had surgery. She vomited once in the morning. Her vital signs are: pulse: 85/min.; blood pressure 95/50 mm of Hg; temperature: 37.5° C. What would your diagnosis be at this stage of the patient interview and clinical examination? (one or more answers possible):

- a- appendicitis
- b-twisting of ovarian cyst
- c -rupture of an ovarian cyst
- d - ectopic pregnancy
- e - diverticulitis

Acceptable answers: a, b, c, d

Problem solving

- Questions stemming from concrete and realistic situations allow to assess the student's ability to solve problems, make a diagnosis, start appropriate treatment and make decisions. Various assessment methods can be used such as patient management problems (PMP) and cascades (see annex 5.2).

Oral exams

Oral exams are frequently used as part of the continuous assessment process, but should not be part of a summative examination. The main disadvantage of oral exams is that examiners may be influenced by the presentation, language, physical behaviour or emotions of the student being examined. Oral exams are therefore a less objective method.

The « Barrows' Cards » exam, which can be used as part of the formative as well as summative assessment process, tests the ability of students to take the right decision in specific situations. This system can be particularly useful for testing illiterate students because the examiner can read out the cards to the students (see annex 5.3).

PRACTICAL SKILLS

Practical examination

A practical examination can be carried out in either a simulated situation or in a real life situation. In both instances, the student must perform a task, which the trainer assesses with the aid of a procedure checklist and weighed marking sheet. The checklist should be based on the procedure checklists used during the training.

The weighing system should take the following into account:

- the key components of the task being examined. Different components should be weighed differently.
- some components, which could have a direct or indirect effect on the patient, if not properly carried out or even omitted, should be weighed negatively and may even lead to the student being eliminated from the examination (i.e. asepsis error or a mistake that results in an incorrect interpretation).

There are a range of checklists and marking sheets : the choice will depend on the level of precision desired to measure an objective (see annex 6).

ATTITUDES (Communication skills)

The attitudes of students can be assessed in a simulation exercise (role-plays or during their in-service training (real-life). Again a checklist, whose criteria must be clearly defined, should be used. (see annex 7).

The criteria for attitudes can also be included in the practical skills checklist.

STRUCTURED EXAMINATIONS OF KNOWLEDGE, PRACTICAL SKILLS AND ATTITUDES (OSCE)

The OSCE (Objective Structural Clinical Examinations) allows the trainer to test a large number of students' competencies in a relatively short time. The students rotate through a series of stations and undertake a specific task at each station. Marking sheets and checklists prepared beforehand are used to assess each task (see annex 5.4).

Planning a Training Programme

Planning a programme requires a systematic approach. The various teaching/ learning/ assessment components should be organised in a logical sequential order that will enable the students to attain the set objectives.

The appropriate planning model will depend on the learning theories and conditions in the field (political instability, accessibility to training sites, possibility of providing ongoing health care).

The workload of the personnel involved in the training should also be taken into account and the training should take place during regular working hours. A flexible approach, however, should allow the non-busy periods to be used for training purposes.

Planning Models

The training can be organised around different modules (i.e. a nutrition module, a hygiene and sanitation module) or based on different physiological functions (i.e. the respiratory system, the circulatory system).

Alternatively a spiral planning approach, which stimulates learning by means of repetition, can be used. Students are first taught the main objectives. If there is any time left at the end of the programme, each objective is reviewed in more depth.

When planning a training programme, the following principles should be borne in mind:

- the underlying theory should be taught at the same time as the practical applications
- in-service training should be given as soon as possible after the theoretical lectures
- trainers should first teach the basics before progressing to more complex topics
- trainers should make sure that the students have mastered a given task before moving on to the next one.
- the teaching activities should be sequenced based on: the logical development of a subject; important themes or concepts; proceeding from what students know to what they do not know etc.

Once the appropriate planning model has been decided on, it is important to estimate how much time will be needed to attain all the set objectives. There is no set rule : personal experience and the study of other training programmes carried out in similar conditions can be used to plan the timetable.

It should be borne in mind that :

- learning takes a lot of time. This is generally underestimated.
- the planning should be fairly flexible to allow for any necessary urgent adjustments.

It is strongly advised to prepare a programme plan, which is a document that outlines the design, the objectives, the teaching and assessment methods, and the estimated duration of the training programme (see annex 8).

CHAPTER III

ORGANISATION OF A TRAINING PROGRAMME

Selection of Participants

Trainers' Duties

Training Contract

In-service Training

Location/Resources

Budget/Financial Agreements

Reports/Hand-over

Selection of participants

Participants should be carefully selected to ensure that the trainer-student ratio does not exceed 1:15 and that the base-level of the participants' knowledge is as homogeneous as possible. A careful selection process will also limit the possibility of any favouritism and ensure that students are given the opportunity to learn according to her/his ability.

Selection Criteria

- The selection criteria can be based on:
 - an acceptable (minimum) level of education: spoken and written language, reasoning skills, logic, understanding of maths and general culture. Nurses must after all be able to calculate the dilutions, etc. and medical assistants must be able to record their observations and write prescriptions
 - an acceptable (minimum) level of professional training if the aim of the training programme is to equip students with specialised skills
 - an acceptable (minimum) degree of professional experience
 - the geographical origin of candidates (sometimes political or ethnic group) to ensure a homogeneous group
 - specific criteria: minimum or maximum age, future availability, sex, geographical mobility, etc.
 - the motivation of candidates as evidenced by their letter of motivation or during an interview.

The number of places available will also affect the selection process. When deciding on the number of places, the following factors should be taken into account:

- the prioritised needs (if a large number of people need to be trained to cover the needs, several training sessions should be scheduled over a time period and/or more trainers recruited)
- the number of trainers
- the training budget
- the available facilities (lecture rooms and practical work) and equipment
- training sites: capacity of selected sites, number of trainees and tutors
- estimated drop-out rate.

• Selection procedures:

These procedures should be very strict to prevent any misunderstandings. Applicants should be informed of the selection criteria. Applicants, who have been selected, should be given adequate advance notice so that they can make the necessary arrangements. If there are a large number of applicants, a preliminary selection can be made based on their application forms to eliminate those who do not meet the criteria.

Trainers' Duties

The selection of trainers is as important as the selection of the right participants. Sometimes trainers will have to be specially recruited.

Selection criteria

- Trainers should be competent in the subject(s) s/he teaches e.g. an inexperienced nurse is not capable of training medical assistants. However being competent in a given professional field does not automatically make you a good trainer.
- Trainers should have training skills.
- Trainers should ideally speak fluently the language used during the training programme.
- Trainers should have enough time to teach: the time factor is often underestimated. The time that national and/or expat staff spend on training activities in the field should be evaluated.

Work Organisation of the Training Programme

Regular meetings should be held with all the trainers to ensure that the training activities are properly prepared and to discuss the progress of the training programme. If external trainers have been recruited, they should be notified in advance of the date of their lecture/activity and be informed of the specific objective of their lecture/activity. Their teaching and assessment methods should conform to the general educational methods of the training programme. Lectures/activities should ideally take up at least half a day to ensure that the lectures/activities are taught in a cohesive fashion.

Each trainer should provide the person in charge with her/his lecture plan, a summary of her/his course content and an outline of her/his teaching/learning assessment methods.

A timetable of the weekly activities should be compiled and a copy given to everyone involved in the training programme (organisation responsible for the training, trainers, national supervisors and students - see annex 9).

The timetable should include:

- planned activities: lectures, practical work, in-service training
- the names of those responsible for each activity
- the date, time, place of each activity

Training of Trainers

The key guiding point to assist trainers are usually :

- defining the training objectives (professional competencies and tasks to be mastered by the end of the training programme)
- deciding on and adapting the course content to the objectives
- choosing the teaching methods

Example:

- preparation of the lectures and lecture plan (see annex 10)
 - preparation and organisation of the practical work sessions (with the aid of procedure checklists)
-

- choosing the assessment methods

Example:

- organisation of a continuous assessment system
 - drafting the assessment checklists and marking sheets
 - defining the acceptable levels of performance.
-

Training Contract

It is not possible to control every aspect of a training programme, especially if a diploma will be awarded upon completion of the training.

It is therefore important to draw up a training contract between the parties involved (students, those responsible for the training programme and administrative authorities).

Training contracts should clearly state:

1. The reciprocal commitments of the various parties, including:

- admission criteria: age, diplomas, experience, etc.
- the duration of the training
- whether the training will be recognised by the authorities and a diploma awarded
- administrative and professional status upon completion of the training programme
- professional commitment expected of students upon completion of the training programme
- the human/material/financial contributions of each party (student fees, per diems, grants...)
- post-training follow-up: assessment/supervision, ongoing education etc..

2. Internal rules:

- Practical issues: date/time/location of training activities:
 - Time table of the activities : in-service training, lectures
 - Holidays
- Assessment and validation methods
- Regulations:
 - Commitment expected from students in terms of attitude, punctuality, input or assiduity during courses and in-service training
 - Regulations governing absenteeism: permitted absenteeism (illness, pregnancy, death of a family member...) and unauthorised absenteeism
 - Sanctions in the event that the rules are not adhered to (extended absenteeism, professional errors...).

The contract should be read, accepted and signed by the local authorities, a representative of the organisation responsible for the training and each student.

See Annex 1 for a sample training contract.

In-service Training

In-service training is an apprenticeship which takes place in a work environment. This enables students to acquire and master the desired competencies.

The role of the trainer or clinical supervisor (tutor) is to stimulate the practical application of the students' skills, assess the performance of her/his students and encourage students to assess their own performance.

Selecting the in-service training sites

These sites should be selected based on the following criteria:

- their health care activities (number of patients, frequency of medical interventions, etc.)
- technical level
- quality of services provided by the personnel in the centre
- availability and teaching skills of trainers.

Organisation of the in-service training

The rights (in terms of the internship) and duties of the students (in terms of the work expected from the students as part of the team in a health centre) should be clearly defined. Naturally the duties should not exceed the rights of the internship.

The objectives, activities and assessment methods should be clearly defined and can be included in the students' logbooks. This information should encourage more active participation as the students will know what is expected of them and how they will be assessed.

To facilitate the learning process for specialised internships (surgery, paediatrics), the internships should be held as soon as possible after the theoretical lectures.

Supervision

Even if the trainer is not directly involved in supervising the in-service training, s/he should at least be involved in the assessment process and make sure that the internship conditions are respected. Students and their clinical supervisors (tutors) can be asked to evaluate the in-service training.

If the conditions and requirements are not being met, another site should be found.

Location/Resources

Training Location

The number of students and the kind of activities that the location will be used for (lectures, practical work sessions, etc.) should be kept in mind, when choosing an appropriate training location.

If a number of training programmes or courses will be held at the same time, it will be necessary to find several locations/rooms.

The rooms should encourage communication (arrange the chairs in a circle), be easily accessible and multi-purpose (accommodate group work, practical work sessions).

If the students are expected to do their own research, they should have access to reference documents or a library.

Accommodation

It may be necessary to arrange accommodation for students and/or trainers.

Equipment/material

A detailed list of the required equipment and material should be made to assist in preparing the budget and estimating the costs of the training programme.

The list should include:

- Teaching material: lecture handouts, Roneo® apparatus, photocopier, visual aids and any medical material required for the practical work sessions.
- Protective gear for the students: lab coats, gloves, etc.
- Miscellaneous supplies: stationary, pens, etc.

Budget/Financial Agreements

Budgeting

In order to organise a training programme it is necessary to ensure that the budget covers all the costs. The budget should include the costs and resources required for the preparation phase/implementation/follow-up of a training programme.

Funding

A training programme can be funded in a number of ways:

- financed entirely by the organisation running the training programme
- financed partially by other partner organisations (joint sessions)
- financed by external organisations or institutions.

Any funding requests to external organisations or institutions should be made well in advance and in accordance with their specific submission procedures.

Estimated expenses

The costs will depend on a number of variables: context, the type of training programme and the number of students and trainers. The budget should cover:

- Personnel

As the main expense of a training programme is the payment of the training programme management team (expat and local staff members) and students, a detailed breakdown of the estimated costs should be compiled, including:

- Transportation, accommodation and/or per diems, honoraria for the supervisors (organisers, trainers, speakers, etc.)
- Student grants.

- Logistics

- renting or setting up lecture rooms, equipment
- supplies, lecture handouts (books, photocopies, etc.)
- delivery of material to the training location.

- Miscellaneous

- official opening and closing ceremonies
- Guest speakers.

- Follow-up

- follow-up supervision or consultations.

Financial agreement

This details which donor is paying for what expense. This document should be submitted and approved by each donor: this will prevent any misunderstandings and ensure that all expenses are covered.

Example: this document should specify which donor will cover the expense (transportation, fees and lodging) of an external consultant responsible for evaluating the training programme.

Evaluation/Programme Follow-up

The evaluation and follow-up of a training programme should be an integral part of the overall programme management. It must be carefully planned in advance.

The objectives of the programme evaluation are to :

- measure the effectiveness of the training
- improve the quality of the teaching
- determine any need for immediate and mid-term adjustments (conceivably by setting up an ongoing educational system).

Training programmes should be evaluated on a regular basis to check whether any changes to learning objectives or methods are required.

Upon completion of the training programme, a detailed evaluation should be undertaken and cover –at the very least– the following aspects:

- the learning objectives
- the course content
- the teaching and assessment methods used
- the organisation of the training programme
- the location and material
- time management
- trainers (see annex 11).

Evaluating the training programme will help the organisers establish what has been achieved, how effective the training programme was and how it can be improved upon.

The evaluation may be done by the person in charge of the training programme and/or the trainers. Internal evaluation, however, is not always easy and may require an external consultant.

As part of the evaluation process, the extent that students use their newly acquired skills in the work place should be assessed either directly or indirectly. This is generally done as part of the supervision process. It can be done by using the direct or indirect method.

Direct method

The direct method entails establishing epidemiological/quality of health care/technique used indicators. Any variation in the findings might be due to the training.

Example: a marked improvement in the number of rational prescriptions, a 30% increase in the reliability of lab tests, no more iatrogenic abscesses, etc.

Indirect method

To assess the level of the students' skills upon completion of the training programme, checklists and marking sheets can be used (see above). The students and their supervisors can also be interviewed to identify their strengths and weaknesses. The weaknesses should be analysed to determine whether they are due to the training programme (the learning objectives of the training programme might have been inappropriate or unrealistic) or by a change in the professional context.

Any weaknesses in the training programme should be addressed before the next training programme begins, especially if the identified weaknesses are limited in number. Alternatively an ongoing educational system could be set up.

Reports/Hand-over

To facilitate the co-ordination between the various parties, a training programme report should be compiled as the programme evolves.

The training programme report, which should be included in hand-overs (where relevant), should consist of a detailed summary of the training.

The following should be included:

- Background information on the mission, including a summary of the situation analysis and arguments supporting the feasibility of the training programme
- Information on the current situation:
 - An organisational chart showing the health structure(s) involved in the training and national health system
 - job descriptions of the personnel involved
 - a list of the drugs available to the prescribing personnel, therapeutic protocols and medical management (for students).
- The training contract
- The personnel files of students and the selection tests
- The training programme:
 - learning objectives (the tasks that students should master)
 - programme timetable (weekly schedules, duration)
 - a lesson plan : practical session plan and group work session plan specifying the organisation and material required
 - the assessment methods:
 - assessment checklists and marking sheets
 - criteria for acceptable performance
 - trainers' grading system
 - results: individual assessments of the students
 - a list of the in-service training sites.
- General organisational matter concerning the trainers (number / qualifications / responsibilities of trainers)
- An outline of the logistical needs and its organisation
- The budget
- Progress reports on the mission, including any cultural or social observations that should be taken into consideration to avoid the repetition of errors.

CHAPTER IV

SPECIFIC ASPECTS OF THE TRAINING PROGRAMME

Certification

A word of caution

Certification

Students may be accredited with a diploma or a certificate upon completion of their training.

However, accreditation carries certain expectations in staff (recognition, statutory change) which, if not met, may cause de-motivation.

There are several scenarios:

- The training programme may have been agreed to or negotiated with the Ministry or the teaching authorities.

Health personnel, who have undergone such a training programme, have clearly defined functions and status in a given medical or paramedical structure. The accreditation is proof of the acquired skills and is recognised by the appropriate Ministry.

- A refresher course (in the work place and held during working hours or in the form of workshops) for employed health personnel may be organised with the approval of the management of the health structure(s).

It is up to the management to decide whether to award a diploma or not.

If the authorities decide not to officially recognise the training programme, the NGO in charge of the training can provide the students with a document listing the skills mastered by them. The skills should have been observed and assessed objectively over time.

A copy of this nominative document should be provided to the administration of the health structure where the student works.

- The training programme may have been organised for internally displaced persons (IDPs) or refugees in a host country.
 - **If a host country organises or sponsors the training programme**, it can decide whether to officially recognise it or not. The diploma is, however, in no way valid for a neighbouring country unless specific agreements exist.
 - **If a private organisation or foreign institution organises or sponsors a training programme** without an official mandate from the health authorities, clearly the former cannot force any authorities to recognise the qualifications unless stipulated under diplomatic agreements.

If both parties agree to the jurisdiction of the WHO, WHO can arbitrate any disputes concerning contracts or the rules concerning the official recognition of training programmes. Generally **governments are responsible for setting their public health policies, including guidelines on health care education**.

The European Union (EU), for example, has only recently begun to establish guidelines on the recognition of professional qualifications and diplomas obtained within the EU.

A Word of Caution

Certain rules concerning the local population and national personnel need to be borne in mind when implementing training programmes as part of a humanitarian medical programme.

The relationship between trainers and students is of particular concern.

Respect for national personnel

The relationship between trainers and students can be similar to that of a master-pupil relationship. These extremes are all too often reinforced by the «power» that expats working in the humanitarian assistance field have. If students feel comfortable in this type of relationship as a result of their cultural or social conditioning, the trainer can use it to aid the learning process.

If, on the other hand, students refuse to be treated like children by the trainer, they might rebel either passively or actively against the trainer. Such passive or active obstruction is often indicative of the trainer's lack of interest in her/his students as adults or even as persons. Passive or active resistance will frequently only serve to exacerbate the attitude of the trainer towards her/his students.

Trainers (and students) could benefit immensely if trainers had a more modest approach and took the time to determine the root causes behind any so-called lack of motivation of certain students, who may be perceived as being untrainable or not willing to change.

Respect for the professional status of national staff

Trainers should respect the professional status of national staff in all circumstances. Doctors are doctors, qualified nurses and midwives are nurses and midwives, etc.

Expat staff have no excuse for ignoring or denigrating the professional status of national staff and taking advantage of their «power».

Attention should be paid to:

- **respecting** existing administrative and hierarchical structures
- **respecting official and informal relationships** (private discussions concerning work)
- **not mixing professional categories in the training programmes:** local doctors should not be in the same class as nurses, whatever their real or perceived competencies.

Respecting functions

In developing countries the qualifications of personnel often do not match their responsibilities.

Example: A health worker may have the same responsibilities as a nurse or a medical assistant those of a doctor.

When expats fill in for local personnel, expat staff may perform certain functions, which they are generally not qualified to do. Due to the lack of personnel, an expat nurse might perform certain tasks, which in Europe would normally only be performed by doctors. This substitution, which should not become the norm, obviously affects the quality of the care provided and raises questions about the responsibilities of staff. If no situation analysis is carried out, a similar problem may arise during the training in that national staff may be asked to perform tasks that should not fall within their field of competence.

Likewise, giving a stethoscope to staff, who do not have the clinical skills to use one, can be seen as an abdication of professional responsibility. A stethoscope, which is synonymous with doctors, is a very powerful symbol and should not be handed out indiscriminately.

ANNEXES

Annex 1: A sample training contract

Annex 2: The P.U.I.G.E.R. system

Annex 3: A sample job description

Annex 4: A sample procedure checklist

Annex 5: Sample assessment tools for assessing knowledge

5.1: MCQ Clinical case

5.2: Cascade questions

5.3: Barrows' cards

5.4: OSCE

Annex 6: A sample checklist/marking sheet for practical skills

Annex 7: A sample marking sheet for attitudes

Annex 8: A sample training programme

8.1: List of competencies

8.2: Extract from a programme outline

8.3: General planning

Annex 9: A sample weekly schedule

Annex 10: A sample lesson plan

Annex 11: A sample teaching/learning session evaluation sheet

Annex 12: The 6 steps of training circle

1. A sample training contract

Specific regulations for the ISAR training programme

(carried out in Cambodia)

Students enrolled in the ISAR training programme should follow the internal ECSS rules as well as those rules which are specific to this training programme and may complement and/or substitute the former.

General regulations

- Attendance to all lectures and in-service training is mandatory.
- The training programme has been divided into modules:
 - Students will be assessed after each module
 - Students will be assessed at the end of each year.
- Additional assessment sessions will be organised for students who:
 - Were absent
 - Did not pass a module assessment

The criteria for acceptable performance or pass grade for practical and/or theoretical assessments are still to be defined by the anaesthesiologists teaching the courses.

- Admission to the second year is subject to obtaining the average of the following grades in the first year :
 - the average grade of the module assessments (coefficient 1),
 - the average grade of the in-service training grades (coefficient 1),
 - the grade of the end of the first year assessment (coefficient 2).
- Students, who do not pass the first year, will not be eligible to enter the second year programme. These students will have to retake the entrance examination, if s/he wants to continue.
- Students can retake the entrance examination as many times as they wish.
- Students will be issued with training booklets, which will be used throughout her/his studies.
 - Students are responsible for their training booklets and should always have them on hand during the course, or should give them to her/his supervisor,
 - MSF supervisors or trainers will record the tasks performed during the in-service training in the training booklets.
- Students should bring their training booklets to their final examination.
- Students, who have met all the practical and theoretical requirements at the end of the two year course, will be awarded with an ISAR diploma, which is recognised by the Cambodian government.

Regulations concerning absenteeism

Any absence, whether authorised or not, of more than 25 days duration in total (whether consecutive or not) per year, which amounts to missing 10% of the training programme, will result in the student being suspended from the training programme. The Disciplinary Committee will decide whether the student should be allowed to repeat the year or if s/he will have to re-take the entrance examination. If the same problem arises during the second year, the first year will still be counted towards the diploma and the student in question will be allowed to recommence the second year in the next intake.

All absences should be approved within 48 hours: attendance forms have to be signed by the Head of the training programme and the ECSS Director. If a student fails to get her/his attendance form signed within 48 hours, her/his absence will be considered as unauthorised absenteeism. A written warning co-signed by the Head of the training programme and the ECCS Director will be issued.

Absenteeism caused by illness, accidents, weddings, deaths or births are permitted.

- If a student is absent for more than two days because of health reasons or an accident, the student should obtain a medical certificate issued by the MSF medical co-ordinator in Phnom Penh or a representative of a provincial agency, who should examine and treat the student. If the student is hospitalised, the certificate should be issued by the hospital.
- In the event of the marriage of a student/a member of her/his family or friend, the student should ask the Head of the training programme for permission to attend the wedding at least five days before the wedding takes place. A maximum period of 5 days absence will be granted upon the presentation of the wedding announcement. Any time taken in addition to these 5 days is not authorised.
- In the event of death of a member of the student's family or of a friend, the Head of the training programme may grant the student a bereavement period of maximum 5 days duration. The student can decide how many days of this bereavement period s/he needs. Any time taken in addition to these five days is not authorised.
- Husbands are granted a paternity leave (maximum five days) by the Head of the training programme.

Being more than 10 minutes late for a lecture is considered as an absence and should be authorised by the Head of the training programme. The student will not be allowed to attend the lecture. If an acceptable reason for the student's lateness is not given, a written warning will be issued.

Three written warnings mean that the student must appear before the Disciplinary Committee.

In-service training regulations

The direct superior of the intern will either be the MSF nurse-anaesthetist and/or the teaching MSF anaesthesiologist. If these persons are absent, the intern is expected to integrate her/him/self into the existing hierarchy of the hospital where s/he is working.

Interns are not allowed to work nights or Sundays during the first year.

During the second year, some interns will be placed in rural hospitals. The interns perform the same work as the other hospital staff of the hospital and work full-time.

Professional Faults:

- At the request of one of the two MSF supervisors and/or the MSF trainer, the Head of the training programme will convene the Disciplinary Committee.
- The following are considered as professional faults :
 - willingly or through incompetence endangering the life of a patient
 - not providing health care to a person in danger
 - neglecting her/his duty
 - non-respect of the asepsis and hygiene regulations
 - using the anaesthetic material and drugs for personal or commercial purposes
 - receiving payment for work carried out within the framework of ISAR training
 - breaching medical confidentiality.

Mutual commitments

ECCS commitments towards the students:

- ECCS undertakes to find accommodation for all students, who do not live in Phnom Phen and are unable to find accommodation in Phnom Phen.

ECCS commitments towards MSF:

- ECCS is responsible for keeping the office tidy. The students are responsible for keeping the lecture rooms tidy.

MSF commitments towards students:

- MSF will give the students a grant if the following conditions have been met:
 - students commit themselves to working for two years upon completion of the training programme
 - students will be paid U\$2 per day for a total of 25 days per month and 12 months per year
 - at the beginning of every month the students will receive \$50 from the Head of the training programme.
- MSF reserves the right to terminate payment of this grant:
 - if a student decides to discontinue the programme
 - upon request of the Disciplinary Committee for disciplinary reasons or a professional fault
 - upon expulsion of a student as determined by the Disciplinary Committee.

Date/Place:

Student's signature:

Signature of the Head of the training programme:

2. The P.U.I.G.E.R. system

In order to include a pathological condition in the training programme, the conditions should respond to at least three of the following criteria:

Criteria P. (prevalence or frequency)

This criteria relates to the estimated prevalence of a given pathology in family medicine or in a hospital. The prevalence of a given pathology, which is a decisive element in the diagnosis process, can be established by reviewing the available epidemiological data.

- The competencies related to this criteria are: «to be able to make a positive, differential and etiological diagnosis»...
- The training objectives (tasks) are: «to be able to synthesise the clinical and para-clinical arguments, plan the examinations and argue/discuss the differential diagnosis of a given pathology»...

Criteria U. (urgent = emergency)

An emergency requires quick (in terms of minutes or hours) and appropriate decision-making. An emergency may be caused by extreme pain, functional distress, or the questioning of a vital prognosis in the short term.

- The competencies related to this criteria are: «to be able to recognise the emergency of ... as evidenced by» The tasks are: «to be able to identify the warning signs of ..., to look for the clinical signs of» ...

Criteria I. (intervention)

This criteria is related to all medical interventions (preventive, curative) that modifies the natural evolution of any given pathology.

- The training objectives related to this criteria are: «to be able to define the appropriate treatment (discussion of therapeutic strategies), plan the treatment, supervise the treatment, evaluate the benefits of the treatment»...

Criteria G. (grave)

This criteria relates to all grave conditions that may lead to death or severe disabilities.

- The training objectives related to this criteria are: «to be able to evaluate the prognosis, identify clinical and para-clinical criteria for the prognosis of..., determine the evolution of»...

Criteria E. (pedagogical exemplarity)

These pathologies enable the demonstration of a complex physiopathological or anatomoclinical mechanism, which facilitates the students' understanding of a biological law or a general pathological mechanism.

- The training objectives related to this criteria are: «to be able to explain physiopathological mechanisms... identify the anatomoclinical correlations and physiological mechanisms»...

Criteria R. (repercussion) was added at a later date:

An illness or disease can have social, economic or political repercussions.

- The training objectives related to this criteria are: «to be able to identify (group) the contributing factors (structures, individuals) to cure ... (disease), evaluate (calculate) the social, professional and economic consequences of... (disease), specify (explain) the regulative aspects of... (disease), analyse the individual and collective consequences of... (disease)».

NB: if the P and I criteria are present, the condition should be included in the training programme.

Advantages

The P.U.I.G.E.R. system should be used to:

- streamline and adapt the programme,
- define the course content,
- define the training objectives for each disease (or health problem) to be dealt with in the programme,
- adapt the examination questions to the objectives.

Constraints and limitations

The P.U.I.G.E.R. system presupposes:

- that the training needs have been defined
- close collaboration between the trainers, the other doctors, health professionals and actors in the health system.

The P.U.I.G.E.R. system can only be applied to pathology. The debate as to whether it can apply to basic science continues. Currently the focus is on the necessity of complementarity between the clinical and therapeutic sciences and their current and future scientific value.

Sources : Jean François d'Ivernois
Ministry of National Education, France, Ministry of Health, France,
Extract from: «Rapport du Groupe de Travail sur le Programme et les modalités des examens et concours de fin de 2ème cycle de médecine».
Paris, 1993.

3. A sample job description

For a health worker doing consultations in an OPD in a refugee camp

Function

- Provide curative care in the OPD.

Activities and tasks

- Record the medical history of a patient, including the following:
 - reason for the consultation
 - how long the patient has been ill or in pain
 - presence/absence of common symptoms such as fever, diarrhoea, cough, difficulty breathing, vomiting
 - medical history
 - any previous treatment.
- Carry out medical examinations :
 - inspection, auscultation, percussion, palpation
 - systematic check of: the patient's neck (stiffness), the face or legs of patient (oedema), diminished state of consciousness, respiratory tests, thoracic examination, anaemia, dehydration.
- Diagnose and treat the following pathologies in accordance with established protocols:
 - simple malaria attacks
 - benign acute respiratory infections
 - watery diarrhoea, with or without mild or moderate dehydration
 - dysentery in patients who are otherwise in reasonable good shape
 - intestinal worms
 - urinary infection without fever
 - STDs: genital ulcers, urethritis, vaginal discharges
 - conjunctivitis
 - impetigo
 - scabies, lice
 - superficial wounds
- Record the signs, symptoms and the most important diagnoses and treatments on the patient's health card.
- Explain to the patient what treatment s/he will be given.
- Provide the patient with medical information on her/his illness.

- Refer all patients with diarrhoea to an ORS centre and supervise these patients' rehydration process.
- Check the vaccination booklets of all children under 5 and refer those who need to be vaccinated to a vaccination centre.
- Check the nutritional status of children under the age of 5 with a MUAC and refer those with MUAC of less than 11 cm to a feeding centre.
- Correctly diagnose and make referrals to the appropriate health structures:
 - vital risks (respiratory distress, shock, coma)
 - cerebral malaria
 - severe acute respiratory infections
 - severe dehydration as the result of diarrhoea
 - severe dysentery
 - urinary infection accompanied with fever
 - acute salpingitis
 - meningitis
 - measles
 - deep wounds, severe traumatism
 - severe anaemia
 - all other cases beyond the competency of the health worker.
- Complete the morbidity surveillance form using the patient case definitions on a daily basis.
- Record in the consultation register: the date, patient card number, consultation number, patient name, age, sex, address in the camp, place of origin of the patient, the main symptoms, diagnosis, treatment or referral.

4. A sample procedure checklist

Task : taking a patient's blood pressure

- 1 Greet the patient.
- 2 Explain the procedure to the patient in layman's terms to reduce the patient's anxiety.
- 3 Roll up the patient's sleeve and if necessary remove any constrictive clothing.
- 4 Check the armband by deflating it if necessary.
- 5 Attach the armband gently but firmly around the middle of the patient's upper arm.
- 6 (depending on the type used) Place the pressure gauge on a flat surface at eye level and connect it to the armband.
- 7 Locate the radial pulse. Close the valve of the inflator and rapidly inflate the armband until you can no longer feel the pulse.
- 8 Make a mental note of when you could no longer feel the pulse then rapidly deflate the armband.
- 9 Locate the brachial pulse on the inside of the elbow.
- 10 Close the valve and inflate the armband to 20 to 30 mm Hg above the number that you made a mental note of in step 8.
- 11 Apply the membrane of the stethoscope to the brachial artery and listen attentively.
- 12 Open the valve and gradually decrease the pressure by approximately 2 mm Hg per second.
- 13 Make a mental note of when the first sound appears (systolic).
- 14 Continue to decrease the pressure at the same rate and make a mental note of when the beating disappears (diastolic).
- 15 Deflate the armband and disconnect the equipment.
- 16 Record the two figures (i.e. 130/80 mm Hg).
- 17 If you need to take a second measurement, wait 5 minutes before repeating the above procedures.

5. Sample assessment tools for assessing knowledge

5.1 - MCQ Clinical case

A 30 year-old man is brought to the emergency ward at the hospital on a stretcher because he was stabbed by his neighbour.

The knife has not been removed: the wound is situated between the third and fourth intercostal space, right anterior face of the thorax, on the median clavicular line. The knife is sticking out perpendicularly.

The patient is very agitated and seems to be in considerable pain.

1) What should you do as soon as the wounded man is admitted? (you can only choose one of the following):

- a – inject 20 mg of diazepam intravenously to calm the patient
- b – reassure the patient and take his vital signs
- c – remove the knife and stitch the wound
- d – clean the wound around the knife without removing it
- e – inject one vial of pentazocine intravenously to relieve the pain

Correct answer: b

2) Which organs may have been touched by the blade of the knife? (one or more answers is/are possible):

- a – his large vessels
- b – his heart
- c – his right lung
- d – his pleura
- e – his left bronchial

Correct answers: a – c – d

The patient has low blood pressure. You decide to start an infusion.

4) Which combination (solution and catheter gauge) is the most appropriate in this case? (only one correct answer):

- a – glucose with a 16 G catheter
- b – Ringer Lactate® with an 18 G catheter
- c – physiological serum with a 20 G catheter
- d – Ringer Lactate® with a 25 G catheter
- e – glucose/saline with a 22 G catheter

Correct answer: b

4) The patient shows signs of severe respiratory distress. What is/are the possible cause(s) of his respiratory distress? (one or more correct answer):

- a – pneumo–thorax
- b – hemothorax
- c – hemo–pneumo–thorax
- d – broken rib
- e – acute infection due to a foreign body

Correct answers: a – b – c

5) Are the following phrases true (T) or false (F) ? Circle the right answer.

- 1• T – F A knife wound in the tenth left intercostal space may have entered the spleen
- 2• T – F A knife wound can provoke a suffocating pneumo–thorax
- 3• T – F A hemo–thorax is the collection of blood in the lungs
- 4• T – F A knife wound in the thorax should not be covered (no bandage) if you can observe air exiting the wound when the patient breathes
- 5• T – F A deep bullet wound in the thorax should be closed as quickly as possible

Answers: 1 T – 2 T – 3 F – 4 F – 5 F

5.2 - Cascade Questions

Example from Kompong Cham, Cambodia, February, 1993.

You are on the night shift in an emergency ward. A 25 year–old woman from a neighbouring village arrives. She is accompanied by her husband. For the past 24 hours she has been suffering from increasingly intense abdominal pain, mainly on her right side. She is worried. The pain is accompanied by asthenia, dizziness and nausea, but no vomiting. The patient feels she might have a fever, but has not been able to take her temperature. Palpation of the abdomen shows neither defence nor contraction and the patient feels pain predominately on her right side. Auscultation shows that there is no blockage and the patient confirms having had a normal bowel movement that morning.

With this information in mind, circle the possible diagnoses (several correct answers):

- 1 – small bowel obstruction due to adhesion
- 2 – acute cholecystitis
- 3 – viral hepatitis
- 4 – cholera
- 5 – right kidney stones
- 6 – acute pancreatitis
- 7– perforated duodenal ulcer

- 8 – right ectopic pregnancy
 - 9 – cystitis
 - 10– acute appendicitis
 - 11 – right pyelonephritis
 - 12 – cerebral malaria attack
- The patient has two children. They are in good health and aged 1 and 4. There were no complications during the home births.
 - She has no medical history except for an access of benign malaria 4 years ago.
 - She has never had surgery.
 - The pain radiates to the shoulders but not to her external genital organs.

A physical examination reveals that:

- Her temperature is 37.8° C
- Her blood pressure is 95/60 and pulse 92/min
- Her conjunctiva are pale, there is no sign of jaundice
- She shows no sign of being dehydrated
- There is no lumbar contact. Nor does she feel any pain when this area is percussed
- Her liver and spleen are not swollen

With this additional information in mind, circle the possible diagnoses (one or more correct answers):

- 1 – small bowel obstruction due to adhesion
- 2 – acute cholecystitis
- 3 – viral hepatitis
- 4 – cholera
- 5 – right kidney stones
- 6 – acute pancreatitis
- 7 – perforated duodenal ulcer
- 8 – right ectopic pregnancy
- 9 – cystitis
- 10 – acute appendicitis
- 11 – right pyelonephritis
- 12 – cerebral malaria attack

As you continue taking down the patient's history, you learn that the patient does not have pollakiuria or experience a burning sensation when urinating. Her urine is clear. The patient had her last period 6 weeks ago and she does not use any contraceptives. Her tongue is clean. Quickly releasing the pressure on Mac Burney's point does not cause her pain, but touching her vagina at Douglas' pouch causes her severe pain.

What is your diagnosis ? (only one correct answer)

- 1 – small bowel obstruction due to adhesion
- 2 – acute cholecystitis
- 3 – viral hepatitis
- 4 – cholera
- 5 – right kidney stones
- 6 – acute pancreatitis
- 7 – perforated duodenal ulcer
- 8 – right ectopic pregnancy
- 9 – cystitis
- 10 – acute appendicitis
- 11 – right pyelonephritis
- 12 – cerebral malaria attack

What additional information could have helped to confirm your diagnosis ?

- 1 – the patient has had genital infections before
- 2 – she has a regular menstrual cycle
- 3 – she had jaundice as a child
- 4 – she gets dizzy when she abruptly changes position
- 5 – her stools are not bloody
- 6 – she has been vaccinated against tuberculosis (BCG)
- 7 – her husband does not use condoms as a means of birth control
- 8 – she has not taken any antibiotics recently
- 9 – her husband experiences a burning sensation when urinating
- 10 – both her children had diarrhoea 4 to 5 days ago
- 11 – she sleeps under a mosquito net

Which elements of a clinical examination could have helped to confirm your diagnosis ?

- 1 – blood pressure when standing: 65/40
- 2 – no meningeal signs
- 3 – minor wheeze are audible in the base of her left lung
- 4 – a rectal touch shows no signs of blood
- 5 – bone-tendon reflexes are normal
- 6 – there are no oedemas in her lower limbs
- 7 – she has a systolic heart murmur
- 8 – the palms of her hands are pale
- 9 – the veins on her arms are barely detectable
- 10 – she has a small goitre

Which of the following para-clinical examinations do you think would be useful to confirm your diagnosis ?

- 1 – frontal abdominal X–ray, standing up
- 2 – frontal pulmonary X–ray
- 3 – haematocrite
- 4 – haemoglobin
- 5 – white blood cell count and differential white count
- 6 – bleeding and coagulation times
- 7 – blood ionogramme
- 8 – abdominal ultra–sound
- 9 – parasitological examination of her stools
- 10 – transaminase dosage (GOT and GPT)
- 11 – dosage of bilirubin
- 12 – checking her urine for blood
- 13 – bacteriological examination of her urine
- 14 – smear and thick blood film
- 15 – amylsaemia

5.3 - Barrows' cards

Description of method

This type of assessment is based on the same principle as the programmed examination described in the WHO Educational Guide for Health Personnel and simulation tests of this type are frequently referred to as Patient Management Problems (PMP). This method provides students with a variable amount of patient data followed by a series of options from which the student must make her/his selection. PMPs simulate data gathering, diagnosis, investigation and patient management and involves problem-based learning. By working through the problem, the student uses her/his ability to reason and apply knowledge appropriate to her/his level of learning and tests the decision-making skills of medical students, doctors, nurses and midwives confronted with a given problem. It can even be used with illiterate health personnel, because trainers can read out the cards to the students.

The simulated situation should be as real-life as possible. The simplest way of designing this type of test, is to focus on a situation that you have had to deal with personally and break it down into the different steps that led you to take certain decisions and the consequences of your decisions. For example when (context: time/place) a patient with complaint X and physical condition X was treated in the OPD. How did you treat this patient (treatment ? referral ? additional tests, ...) ? What were the immediate consequences of your decisions? Did the patient's condition improve or deteriorate?

Barrows' cards attempt to reproduce real life by providing immediate feedback on the decisions taken by students concerning the clinical examination and treatment of a patient. In real life you obtain such information instantaneously, which allows you to make the necessary adjustment to your patient management.

Characteristics*

Barrows' cards constitute the basis of what is now a computer simulation programme. It is an objective (oral) examination: the choice of a student is graded on a scale of 1 to 5 (1 = harmful and 5 = essential).

If a student takes a decision that has fatal consequences, s/he could be eliminated from the test.

Structure

CLINICAL CASE

a clinical case, which should be clear and concise (length : approximately one page). No diagnosis is provided but the case should be easy enough to make the diagnosis.

LIST OF CHOICES
1 _____

20 _____

50 _____

a list of choices (decisions). Each clinical case should have a list of 20 to 50 choices of potential examinations to be carried out or treatment. The choices range from bad, good to neutral.

DECK OF CARDS

1

20

50

a deck of cards: each card denotes a different option. Each card indicates the consequence of the decision taken and is not a value judgement of the decision. Certain cards can be replaced by a document, X-ray or lab test result.

Grading

Each card or choice is graded according to an international scale with the following 5 levels :

- 2 denotes : harmful, costly, even dangerous

- 1 denotes : useless but not harmful

0 denotes : neutral

+ 1 denotes : useful

+ 2 denotes : essential.

* d'Ivernois J.F., Chabot J.M. «*Guide de l'évaluation au cours des études médicales*» Faculté de médecine et de pharmacie Casablanca, 1987, 70p.

A decision which leads to the death of the patient may result in the elimination of the student. A student's final score is the sum of negative and positive choices. The average or limit is 60 or 70% of the maximum score depending on the difficulty of the case. The score should always be higher than or equal to the score that denotes the minimum safety level. This score should be defined when the test is drawn up.

Remarks

- Taking short cuts will not result in a higher score. Decisions should be well-founded.
- When designing the test, you should:
 - make sure that the sum of all choices is not equal to the average grade
 - make sure that the test choices (i.e. the tests that the students decide to have done) do not add up to the average grade before the student has even treated the patient.

Doing the test

The student should sit opposite the examiner and read through the clinical case as well as the list of choices available. S/he can choose as many choices as s/he wishes: there should be no time limit. The cards should be spread out on the table with their numbers facing up. The student subsequently picks up the card(s) that corresponds to her/his choice(s) and reads the consequences of her/his decision. The examiner is able to grade the student based on her/his choices. If the students are illiterate, the trainer can read out the cards to the students.

Example: cholera epidemic in a refugee camp (80,000 persons)

Clinical case: You are a medical assistant and the following occurs:

- On Monday, a 40-year-old woman with diarrhoea and dehydration is admitted
- On Tuesday, 2 adults (a 56-year-old woman and a 25-year-old man) are admitted. They are in a state of shock and show signs of severe dehydration caused by severe diarrhoea and vomiting. They also complain of muscle cramps. 2 children (a dehydrated 8-year-old and a 3-year-old in a state of shock) are also admitted. They also have severe diarrhoea.
- On Wednesday there are 2 deaths from diarrhoea in the camp. 15 persons suffering from vomiting, watery diarrhoea and dehydration come for a consultation.

The general context: the dry season has ended and the water is rationed (10 l./person/day). There are more surface wells than there were the last month, but the water is no longer treated. There is only 1 latrine for every 150 refugees following the arrival of 20,000 refugees over the past months.

What do you do ?

1. I isolate patients suffering from watery diarrhoea and vomiting.	1. Other patients in the hospital are protected.	+2
2. I send stool samples to the laboratory to be tested for cholera.	2. The results, which come back within 48 hours, are positive.	+2
3. I organise an anti-cholera vaccination campaign and order the vaccines.	3. Your superiors are not pleased, because they think you are wasting money.	-2
4. I partition off patients in the hospital according to age and sex.	4. The hospital is partitioned.	0
5. I immediately warn the refugee camp authorities.	5. The Head of the camp gives you personnel and you obtain the necessary funds.	+1
6. I warn the Ministry of Health.	6. The Ministry delivers the necessary authorisation to act.	+1
7. I evacuate the patients to the provincial hospital located 40 km away.	7. The hospital is already full and will not accept any more patients.	0
8. I give doxycycline to the whole population.	8. Your supplies of doxycycline are quickly depleted and you do not have any more supplies for the population at risk.	-1
9. I decide not to warn the population to prevent an outbreak of panic.	9. There are rumours in the camp about the so-called poisoning of the population.	-2
10. I treat vomiting patients with primperan.	10. You run out of stock in less than 24 hours.	-1
11. I organise a general distribution of vitamin C.	11. There are not enough supplies to carry out this distribution.	0
12. I do a stock inventory before ordering Ringer Lactate®, tetracycline, chlorine and injection material.	12. You can place your emergency order.	+2
13. I take water samples from the wells.	13. In one of the sections the samples are positive.	+1
14. I organise a team to chlorinate the wells.	14. The number of cases decreases	+1
15. I organise a team to dig wells.	15. The number of cases decreases.	+1
16. I organise an information campaign for the entire camp population.	16. Morbidity and CFR decreases. The rumours cease. The population calms down.	+1
17. I organise teams of health workers for active case finding.	17. CFR decreases.	+2
18. I identify a suitable location where the cholera treatment centre can be set up.	18. The center is set up in 3 days and the number of cases decreases.	+1
19. I only isolate patients who are on a drip.	19. Other patients in the hospital contract diarrhoea.	-1
20. I distribute Imodium to all patients.	20. The patients can not keep the Imodium down.	-1
21. I inform the hospital personnel which disinfecting measures should be taken.	21. Patient care improves. CFR decreases.	+2

List of Choices**Consequences – Deck of Cards****Grade**

Maximum score : 18

Acceptable level of performance : 14

5.4 - OSCE

Objective Structured Clinical Examinations

These types of examination can be used to assess a variety of skills in a group of students in a relatively short time.

Students rotate through a series of stations (usually 5-10 given the training situations and contexts that MSF works in) and undertake a variety of tasks. A given task, which tests the knowledge, practical skills and attitudes of students, is assessed at each station, as discussed in greater detail below:

- Stations testing the knowledge of students would use : OSAQs, MCQs, clinical cases, Barrows' cards, etc.
- Stations testing the practical skills of students would require students to: do clinical examination of a real patient or dummy, prepare a drip, prepare a blood smear, inject IM into an orange, suture, etc.
- Stations testing the communication skills of students would require students to: reassure a patient (simulated patient), convince a mother to bring her child to a vaccination clinic, etc.

Marking sheets, which should be prepared beforehand, should be used to improve the reliability of the grading. An examiner should be present at each station and depending on the task, a patient or simulated patient.

Students should be given approximately five minutes to complete a given task before being told to move on to the next station. When designing the tests, you should make sure that all tests only take five minutes to do. Students should be given written instructions on what is expected of them and any material essential to carry out the tasks in advance: students should be fully prepared and there should be no need for them to seek clarification.

A supervisor should be appointed to manage the flow of students and check the times. The first student should start at the first station, move onto to the second station after five minutes have elapsed, thereby allowing the second student to commence at the first station. Students should not meet. You should ensure that the test area is laid out in such a way that students who have already completed the tests can not communicate with students, who are about to start the examination.

6. A sample checklist/marking sheet for practical skills

Assessment and procedure chart for starting an infusion

E = student is eliminated if s/he does not perform given task correctly

Acceptable level of performance : 80% of maximum score (total score : 22)

- Check the attending doctor's instructions .../1
- Prepare the material (bottle, infusion set, catheter, cotton, antiseptic, tourniquet, kidney tray) .../1
- Write the date and time on the bottle .../1
- Wash hands with clean water and soap .../1
- Put on non-sterile gloves .../1
- Explain the procedure to the patient .../1
- Clean the lid of the bottle with a swab dipped in a disinfectant .../1 or E
- Drain the infusion set .../2 or E
- Keep the end of the infusion set sterile .../1 or E
- Cut a piece of adhesive tape to keep the infusion in place .../1
- Place the tourniquet on the patient's arm and locate a vein .../0
- Disinfect the skin at the point of puncture .../1
- Insert the needle into the vein .../0
- Check that the blood flows into the catheter .../1 or E
- Remove the guiding needle .../0
- Insert the end of the infusion set into the catheter aseptically .../1 or E
- Remove the tourniquet .../1
- Open the valve .../1
- Fasten the catheter with adhesive tape (use a splint for children) .../1 or E
- Make sure that there is no swelling at the point of puncture .../1 or E
- Check the infusion rate and adapt it to the patient's condition .../2 or E
- Dispose of waste in accordance with the existing waste disposal policies.../1 or E
- Record the infusion on the patient's surveillance chart .../1 or E

7. A sample marking sheet for professional attitudes

7.1 - The following criteria and scale are used to assess attitudes:

A =ALWAYS B = FREQUENTLY C= RARELY D =NEVER
 date date date date date date

Assiduity, punctuality:

A	<input type="checkbox"/>					
B	<input type="checkbox"/>					
C	<input type="checkbox"/>					
D	<input type="checkbox"/>					

Interest in the patient:

A	<input type="checkbox"/>					
B	<input type="checkbox"/>					

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
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C	<input type="checkbox"/>					
D	<input type="checkbox"/>					

Professional motivation:

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	--------------------------------------	----------------------------------	---

A	<input type="checkbox"/>					
B	<input type="checkbox"/>					
C	<input type="checkbox"/>					

D

Sense of responsibility:

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	--------------------------------------	----------------------------------	---

A

B

C

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	--------------------------------------	----------------------------------	---

D

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	--------------------------------------	----------------------------------	---

All elements present +2	A majority of elements present +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	--------------------------------------	----------------------------------	---

Initiative:

All elements present +2	A majority of elements present. +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	---------------------------------------	----------------------------------	---

A	<input type="checkbox"/>					
B	<input type="checkbox"/>					
C	<input type="checkbox"/>					

All elements present +2	A majority of elements present. +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	---------------------------------------	----------------------------------	---

D	<input type="checkbox"/>					
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Organisational skills:

A	<input type="checkbox"/>					
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

All elements present +2	A majority of elements present. +1	Only a few elements present 0	None of the elements and/or serious mistake or omission -1
----------------------------	---------------------------------------	----------------------------------	---

B	<input type="checkbox"/>					
C	<input type="checkbox"/>					
D	<input type="checkbox"/>					

7.2 Communicating with a patient

Marking sheet for an interview

1/ Introduction

The student greets the patient and introduces her/himself. S/he explains the issues clearly and comprehensibly.

The student creates all the necessary conditions (in terms of location and time) for the well-being of the patient and confidentiality of the discussion. S/he has an open, receptive attitude towards communication.

2/ During the Interview

The student allows the patient to express her/himself freely during the discussion. The student does not interrupt the patient or make any subjective interpretations. S/he controls her/his spontaneous reactions (verbal or non-verbal).

The student assesses how much the patient knows about her/his illness (subjective perception) and how much information the patient wants to know by asking open-ended questions using verbal and non-verbal signals.

The student restates what the patient has said. S/he asks questions in order to make sure s/he has understood and makes comments and summarises the main points.

The student gradually builds upon the basic knowledge of the patient by providing as much information on her/his illness as the patient wants. The student uses language that the patient can understand and checks to see if the patient has understood. The student takes the patient's level of comprehension and her/his socio-cultural background into consideration.

The student allows the patient to express her/his emotions. The student identifies the patient's emotions and concerns by asking open-ended questions and interpreting what the patient says as well as her/his non-verbal signs.

The student acknowledges the patient's emotions without trivialising them. Nor does s/he try to reassure the patient too quickly or in a superficial manner. Her/his comments and explanations express her/his empathy and respect.

3/ Ending the interview

The student allows the patient to ask questions and encourages the patient to do so. S/he asks the patient to summarize the main points. S/he confirms his understanding of the patient's summary.

TOTAL SCORE : _____

ACCEPTABLE SCORE : 11

8. A sample training programme

COMPETENCIES	TASKS	CONTENTS	TEACHING METHODS AND MATERIALS	STUDENT ASSESSMENT
<ul style="list-style-type: none"> Apply prevention measures against cholera transmission prevention in the CTC 	<ul style="list-style-type: none"> Explain how feco-oral transmission occurs Identify those persons likely to transmit cholera within the camp Identify the conditions conducive to transmission Apply the prevention measures in all prescribed situations Prepare 2%, 0.2%, 0.05% chlorine solutions Explain when to use each solution to the hospital workers 	<ul style="list-style-type: none"> Basic information on infectious micro-organisms Human reservoir Transport medium : water, etc. Human contact (hands ++) Contact with infected stools/ water/hands Isolation of patients, wearing the uniform/ boots, using soap, different cleaning solutions (for floors, corpses, hands, patients, disinfecting stools and vomit, etc.) 	<ul style="list-style-type: none"> Organise a group discussion on the traditional beliefs on cholera transmission, introduce "Western scientific" concepts Organise a group discussion on identifying persons and conditions conducive to cholera transmission Organise a group discussion on the preventive measures observed during the field visit. Summarise and if necessary expand on information – materials: blackboard and markers Practical work session: preparation of chlorine solutions – materials: chlorine, water, buckets Role-play 	<ul style="list-style-type: none"> MCQ MCQ Practical assessment with checklist/ marking sheet MCQ Practical assessment with checklist/ marking sheet
<ul style="list-style-type: none"> Diagnose a case of simple cholera (non-dehydrated) 	<ul style="list-style-type: none"> Take down the medical history of a patient and her/his family Identify the symptoms of cholera Take the pulse, blood pressure and temperature of a patient 	<ul style="list-style-type: none"> Clinical signs of cholera in adults and in children Basic information on how the heart and blood circulation works Basic information on thermo-regulation Learning certain techniques 	<ul style="list-style-type: none"> Lectures – materials: blackboard, chalk Practical work session with demonstration and practice: use procedures checklist 	<ul style="list-style-type: none"> MCQ Practical assessment with checklist/ marking sheet

Training programme for training health workers in a cholera treatment centre

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
W E E K 1	<ul style="list-style-type: none"> • Presentation of the training programme and Day 1 • Description of a CTC 	<ul style="list-style-type: none"> • Group discussion • How cholera is transmitted • Preventive measures in a CTC (5, 6, 7, 8) 	<ul style="list-style-type: none"> • Lecture • Clinical signs of a non-complicated cholera case • Medical history of a patient (11, 12) 	<ul style="list-style-type: none"> • Practical work session: taking blood pressure (13) • Practical assessment (formative) on blood pressure 	<ul style="list-style-type: none"> • Depending on results of assessment: revision of theory
P.M.	<ul style="list-style-type: none"> • Visit a CTC • Group work and presentation of CTC layout (1, 2, 3, 4) 	<ul style="list-style-type: none"> • Practical work session: preparation of chlorine solutions (9, 10) • Role-play on use of the different solutions • Formative assessment on solution preparation 	<ul style="list-style-type: none"> • Practical work session: taking the temperature and pulse • Practical assessment (formative) on taking temperature and pulse (13) 	<ul style="list-style-type: none"> • Formative assessment on the theory: cholera transmission, preventive measures and clinical signs of non-complicated cholera 	<ul style="list-style-type: none"> • Patient admission procedures (role of health workers, admission card) • Role-play: completing the admission card
W E E K 2	<ul style="list-style-type: none"> • Treating a simple cholera case (the role of ORS) (18) • Presentation of drugs used in a CTC: distribution exercise (19) 	<ul style="list-style-type: none"> • Principles of patient monitoring • Exercise: completing surveillance charts (20, 21, 22, 23, 24) 	<ul style="list-style-type: none"> • Summative assessment (50% of final mark) • Theoretical clinical cases... 	<ul style="list-style-type: none"> • Theory on clinical signs of dehydration • Field visit to examine dehydrated patients (25) 	<ul style="list-style-type: none"> • Theory on clinical signs of hypovolaemic shock (26) • Practical work session: starting infusions in patients (32, 36, 42)
P.M.	<ul style="list-style-type: none"> • Practical work session: preparation of ORS (17) • Practical formative assessment on ORS 	<ul style="list-style-type: none"> • Revision of the practical work sessions: weight, BP, temperature, chlorine solutions, ORS 	<ul style="list-style-type: none"> • Practice: Structured Practical examination (OSCE) 	<ul style="list-style-type: none"> • Indications and complications + practical work session on starting infusions (simulation) (36, 41, 42) 	<ul style="list-style-type: none"> • Indications and complications+ practical work session on inserting nasal gastric tubes (simulation) • Formative practical assessment (34)
W E E K 3	<ul style="list-style-type: none"> • Theory on clinical signs of respiratory distress, coma, and convulsions (27, 28, 30) • Real-life practical session: starting infusions on patients (32, 36, 42) 	<ul style="list-style-type: none"> • Group work on case studies suffering from dehydration, respiratory distress, coma, and convulsions (25, 26, 27, 28, 30) 	<ul style="list-style-type: none"> • Summative assessment (50% of final mark) • Theory (case studies) 	<ul style="list-style-type: none"> • Managing the dispensary of a care unit • Exercises on ordering drugs (43, 44, 45, 46) 	<ul style="list-style-type: none"> • Visit from health worker to discuss her/his work in a CTC (54, 55, 56)
P.M.	<ul style="list-style-type: none"> • Role play: convincing a mother to agree to a nasal gastric tube for her child (35) • Study of protocols for referring complicated cases (31, 32, 33) 	<ul style="list-style-type: none"> • Case studies of monitoring patients (37, 38, 39, 40) • Role play: taking down medical history of patient suffering from convulsions (29) 	<ul style="list-style-type: none"> • Practice: <ul style="list-style-type: none"> - starting an infusion - inserting a nasal gastric tube 	<ul style="list-style-type: none"> • Managing non-medical material stock (47, 48, 49) • Field visit: dispensary and non-medical material 	<ul style="list-style-type: none"> • Field visit and group work on «giving an overview (verbally) of the health facilities in the framework of a report or a request for intervention» (50, 51, 52, 53)

This training takes three weeks (15 days of lectures) after which the students should be operational given the emergency situation (cholera). The underlying principle of the programme is that the students should be able to use their acquired skills in the field immediately. With this in mind, students are placed in cholera treatment centres (CTC) to observe what goes on, practice their skills, examine patients, etc.. Students could also do an intensive internship (full-time) in a CTC on the weekends: they should only be allowed to practise what they have been taught in the course. During the first weekend the students should be able to prepare the chlorine solutions, take

DAYS	MONDAY		TUESDAY	WEDNESDAY
Course subjects	<ul style="list-style-type: none"> Starting an infusion: practical work session with simulation exercise in the lecture room 			
Classes	A	B		
Time	A.M.	A.M.		
	P.M.	P.M.		
Names of trainers, guest speakers				
Comments				

the patients' vital signs and make the necessary preparations for the admission of simple cholera cases. During the second weekend they should be able to administer the ORS treatments, distribute drugs, monitor patients as well as insert infusions and gastric tubes.

8.1 - List of competencies and tasks

The following list of competencies and tasks has been compiled based on the job description of a health assistant in a CTC.

- To show a patient, any person(s) accompanying the patient or health worker her/his way around in a CTC:**

1. to explain the layout of a CTC to a third person (patient, family member, health

worker)

2. to name the different sections of a CTC (admissions, observation, hospitalisation of simple and complicated cases, paediatrics, labour rooms, convalescent area, morgue, sanitary facilities for patients and personnel, kitchens, store rooms for material and drugs, ORS preparation room, incinerator)
3. to explain how the patients will move from one section to another
4. to explain to hospital workers which sections in the CTC are contaminated/not contaminated

• **To apply the measures of cholera transmission prevention in a CTC:**

5. to explain feco–oral transmission
6. to identify persons likely to transmit the disease in the camp
7. to identify conditions conducive to transmission

Contents	Teaching Methods	Time	Material
•Anatomy and physiology of the cardiovascular system.	•Questions •Answers	10 min.	•board •poster of cardiovascular system.
•How to take a pulse.	•Practical •Demonstration	10 min.	• poster •watch
•Practice: taking a pulse.	•Practising the task: – on yourself – on another student	20 min.	•watch
•Formative assessment	•In a real situation	15 min.	•watch

8. to apply the preventive measures in all prescribed circumstances (wearing the uniform/boots, washing hands, chlorination, etc.)
9. to prepare 2%, 0.2% and 0.05% chlorine solutions
10. to explain to health workers when each solution should be used

- **To diagnose a simple case of cholera (non–dehydrated):**
 11. to take the medical history of a patient and her/his family
 12. to identify the symptoms of cholera (severe diarrhoea, vomiting and muscular pain)
 13. to take the pulse/blood pressure/temperature of a patient
- **To admit a simple case of cholera:**
 14. to complete an admission form
 15. to supervise health workers, who are responsible for showing the patient and any person(s) accompanying the patient, where the patient will undergo her/his treatment
 16. to explain the internal rules of the CTC to the patient and any person(s) accompanying the patient
- **To treat a simple cholera case:**
 17. to prepare the required quantities of ORS
 18. to explain to the patient and any person(s) accompanying the patient the purpose of ORS and how to use it
 19. to distribute prescribed drugs (and ensure compliance)
- **To monitor a simple cholera case:**
 20. to take the patient's vital signs according to prescription
 21. to record the vital signs on the patient's surveillance chart
 22. to record any bowel movements and vomiting on the surveillance chart
 23. to check oral rehydration and drug compliance
 24. to warn the attending supervisor if the patient's condition deteriorates
- **To diagnose a complicated cholera case: recognise dehydration, hypovolaemic shock, respiratory distress, convulsions and coma:**
 25. to identify the clinical signs of dehydration in adults and in children
 26. to identify the clinical signs of hypovolaemic shock in adults and in children
 27. to identify the clinical signs of respiratory distress in adults and in children
 28. to identify the clinical signs of a convulsion in adults and in children
 29. to ask the person accompanying the patient about the patient's history in the event that the patient is convulsing
 30. to identify the clinical signs of a coma
- **To refer a complicated case of cholera to the appropriate health personnel:**
 31. to immediately warn the appropriate personnel if the patient exhibits any of the symptoms listed above
 32. if the patient is in shock, to start an infusion with Ringer Lactate® solution
 33. when the patients shows signs of respiratory distress, decrease the infusion rate as prescribed by the protocol (number of drops per minute)

- **To treat a complicated case of cholera in line with the prescribed treatment:**
 34. to insert a nasal gastric tube aseptically and in line with the prescribed treatment
 35. to convince mothers to agree to a nasal gastric tube for her child
 36. to insert an infusion aseptically and in line with the prescribed treatment
- **To monitor a complicated case of cholera in line with the prescribed treatment:**
 37. to take the patient's vital signs (pulse, blood pressure) as often as prescribed
 38. to record this data on the appropriate surveillance chart
 39. to warn the appropriate personnel if the patient's condition deteriorates (respiratory distress, coma, convulsions, hypovolaemic shock)
 40. to record the frequency of bowel movements and vomiting on the surveillance chart as required by the prescribed treatment
 41. to monitor the infusion (condition of veins, rate) and take appropriate measures in line with the applicable protocol
 42. to give additional infusions in line with the prescribed treatment
- **To manage a dispensary in a CTC care unit:**
 43. to do a stock inventory of the dispensary in a care unit
 44. to calculate the amount of stock required
 45. to order the appropriate quantities of solutions, drugs and medical material
 46. to store the drugs in appropriate storage conditions
- **To manage the stock of material of a care unit:**
 47. to identify the non-medical material needs
 48. to order non-medical material
 49. to maintain the non-medical material to the best of one's knowledge
- **To verbally give an overview of the health situations in the framework of a report or a request for an intervention:**
 50. to name the different categories of personnel in a CTC
 51. to describe the organisational chart of the CTC personnel
 52. to explain the functions of each category of personnel
 53. to explain the role of health workers in the different sections where they work.
- **To supervise the work of hospital workers in a care unit:**
 54. to describe the tasks of hospital workers
 55. to organise the work of the hospital workers
 56. to help the hospital workers in the performance of their duties.

8.2 - Extracts from a programme outline

8.3 - General planning

9. A sample of weekly schedule

Week N°: _____

Dates : from ___ / ___ / ___ to ___ /

10. A sample lesson plan

Subject : « How to take the pulse of a patient »

Number of students : 20

Lesson objectives : At the end of the lecture students should be able to :

- describe the function of cardiac beats
- identify 3 spots where the pulse may be taken
- take a pulse.

Student assessment : individual observation of practical work, with checklist / marking sheet.

11. A sample teaching/learning session evaluation sheet

* From work done on Diploma of Applied Studies by Claire Marchand (1996): «Validation of an evaluation guide for training programmes for health workers in precarious countries».

This checklist is a basic tool to evaluate lessons. The format proposed below is an example and can be modified or added to suit the context of the evaluation. The proposed indicators and criteria attempt to evaluate the general quality of the teaching/learning methods and in particular to evaluate the development of problem-solving skills.

The scale, which is the same as the one in the assessment guide, should help you to identify any gaps in learning/training sessions.

1 Very good appreciation denotes : very satisfactory, perfect, always, etc.

—> **No improvement is necessary**

2 Good appreciation denotes : satisfactory, acceptable, often, etc.

—> **Room for improvement**

3 Bad appreciation denotes : insufficient, unsatisfactory, mediocre, rarely, etc.

—> **Rapid improvement required**

4 Very bad appreciation denotes : completely insufficient, bad, never, etc.

—> **Urgent and major improvement required**

General organisation of the session

- | | | | | |
|---|---|---|---|---|
| • Learning objectives are clearly stated | 1 | 2 | 3 | 4 |
| • The objectives are adapted to professional needs | 1 | 2 | 3 | 4 |
| • The objectives were explained to students at the beginning of the session | 1 | 2 | 3 | 4 |
| • Appropriate educational material is provided | 1 | 2 | 3 | 4 |
| • Teaching/learning strategies are relevant | 1 | 2 | 3 | 4 |
| • All students actively participate during the session | 1 | 2 | 3 | 4 |
| • Allotted teaching/learning time is adhered to | 1 | 2 | 3 | 4 |
| • Comments: | | | | |

General qualities of the trainer

- | | | | | |
|--|---|---|---|---|
| • The students have no problems hearing the trainer | 1 | 2 | 3 | 4 |
| • The students have no problem understanding the vocabulary used | 1 | 2 | 3 | 4 |
| • The key concepts are highlighted | 1 | 2 | 3 | 4 |
| • The trainer takes the professional experience of the students into account | 1 | 2 | 3 | 4 |
| • The trainer takes her/his students' remarks into account and makes the necessary modifications to her/his teaching | 1 | 2 | 3 | 4 |
| • The trainer provides an overview of her/his lessons (outline, key points, diagrams, etc.) | 1 | 2 | 3 | 4 |
| • The trainer summarises the key points of her/his lectures | 1 | 2 | 3 | 4 |
| • The trainer makes sure that all students attain the set objectives | 1 | 2 | 3 | 4 |
| • Students are allowed to make mistakes | 1 | 2 | 3 | 4 |
| • The trainer picks up on misunderstandings that students might have and corrects them | 1 | 2 | 3 | 4 |
| • The trainer treats her/his students with respect | 1 | 2 | 3 | 4 |
| • The trainer–student relationship is good | 1 | 2 | 3 | 4 |
| • Comments : | | | | |

Examples provided by the trainer

- | | | | | |
|--|---|---|---|---|
| •The trainer gives examples | 1 | 2 | 3 | 4 |
| •The trainer gives counter-examples | 1 | 2 | 3 | 4 |
| •The trainer's examples are realistic and varied | 1 | 2 | 3 | 4 |
| •Students also give examples | 1 | 2 | 3 | 4 |
| •Comments : | | | | |

Questions asked by the trainer

- | | | | | |
|--|---|---|---|---|
| •The trainer asks the students questions | 1 | 2 | 3 | 4 |
| •The questions test the students' memory/
reasoning skills/understanding | 1 | 2 | 3 | 4 |
| •The trainer gives the students sufficient time to answer
her/his questions | 1 | 2 | 3 | 4 |
| •Before answering, the trainer encourages students
to respond themselves | 1 | 2 | 3 | 4 |
| •Comments : | | | | |

Problem-based learning

- | | | | | |
|---|---|---|---|---|
| •The trainer gives students exercises that require solving problems | 1 | 2 | 3 | 4 |
| •These exercises require the student to apply their knowledge | 1 | 2 | 3 | 4 |
| •The problems become increasingly more complex | 1 | 2 | 3 | 4 |
| •The trainer focuses on the basics and the differences /
similarities between different problems | 1 | 2 | 3 | 4 |
| •More time is spent on analysing the problems
than on resolving them | 1 | 2 | 3 | 4 |
| • The trainer encourages the students to develop strategies
to resolve problems by explaining different strategies,
including her/his own | 1 | 2 | 3 | 4 |
| •The trainer makes the students aware of how they build
upon their own knowledge (by having the students think out loud) | 1 | 2 | 3 | 4 |
| •The trainer gives students feedback on their results | 1 | 2 | 3 | 4 |
| • The teacher gives feedback on the students' strategies
to resolve problems | 1 | 2 | 3 | 4 |
| •Comments : | | | | |

12. The 6-Steps of the training circle

Introduction

This expression is used in an attempt to standardize, clarify and demystify training. If the steps are followed in a logical order, training in the field will be of a higher standard and ultimately more effective and therefore contribute to increased quality of programs. It is not always necessary to carry out in-depth studies of each step if this has recently been done; but one should be assured that each step is adequately covered. Each step consists of a number of activities that should be carried out. These will not all be listed here, but an overview will be outlined.

The 6-steps are as follows:

1. Situation analysis
2. Design
3. Preparation
4. Implementation
5. Supervision/Follow-up
6. Evaluation

Step 1: Situation analysis

A detailed analysis of the problem is essential, in order to make the correct decisions concerning initiating or adapting a training program. The following issues have to be examined in depth and thoroughly analyzed.

- What exactly is the problem;
- Is training the solution for the encountered problem and which elements of the problem can be solved by training and which cannot be solved;
- Were all necessary people consulted and involved, to provide a clear picture of the needs and probable solutions.

A training feasibility study must be carried out in order to determine whether the actual situation is appropriate for setting up a training course. Ideally a national counterpart should be identified as soon as possible and involved with all stages of the training process.

If the above issues have been examined in depth, a sound basis has been created to develop a training programme.

Other MSF publications

- **Clinical guidelines** (french, english, spanish, russian)
- **Essential drugs** (french, english, spanish, russian, arabic)
- **Minor surgical procedures in remote areas** (french, english, spanish)
- **Obstétrique en situation d'isolement** (french, spanish)
- **Techniques chirurgicales de base** (french, spanish)
- **Ophthalmologie en situation d'isolement** (french)
- **Prise en charge d'une épidémie de choléra** (french)
- **Conduite à tenir en cas d'épidémie de méningite à méningocoque** (french)
- **Nutrition guidelines** (english, french)
- **Guide du laboratoire médical** (français)
- **Public health technician in precarious situation** (french, english)
- **Prise en charge d'une épidémie de rougeole** (french)
- **Rapid health assessment of refugee or displaced populations** (english, french)
- **Dispensary guideline, Installation and organisation** (english)
- **Refugee health, MSF-MacMillan** (english)
- **Practical guidelines for training health staff** (english, french, spanish)
- **Blood transfusion practice in remote areas** (english, french)

Step 2: Design

This guide is designed for physicians and other health personnel in charge of training and supervising local staff. It can also be of use to non medical staff who are interested in training programmes as the idea is to give direction and structure the setting up of a programme. Moreover, the training methodology can be used whatever the field to be taught.

Each chapter is independent, however, when designing a full programme, it is recommended that all chapters be read in the order presented.

The vocabulary which is used in this guide is simple and precise. It is necessary to have a good command of this specific vocabulary when referring to training programmes. Numerous examples from the field are also included in this guide and can be found in the annexes.