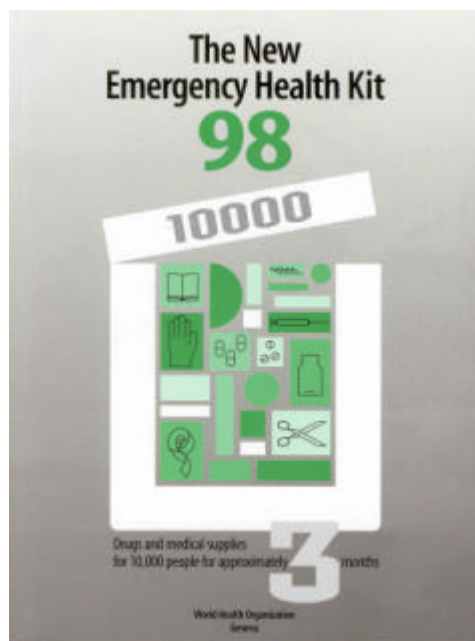


**THE NEW EMERGENCY HEALTH KIT 98:
DRUGS AND MEDICAL SUPPLIES FOR 10,000 PEOPLE FOR
APPROXIMATELY 3 MONTHS**

WHO, 1998



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Introduction

In recent years the various organizations and agencies of the United Nations system have been called upon to respond to an increasing number of large-scale emergencies and disasters, many of which pose a serious threat to health. Much of the assistance provided in such situations by donor agencies, governments, voluntary organizations and others is in the form of drugs and medical supplies. But the practical impact of this aid is often diminished because requests do not reflect real needs or because these have not been adequately assessed. This can result in donations of unsorted, unsuitable and unintelligibly labelled drugs, or the provision of products which have passed their expiry date. Such problems are often compounded by delays in delivery and customs clearance.

The World Health Organization (WHO), which is the directing and coordinating authority for international health work within the United Nations system, took up the question of how emergency response could be facilitated through effective emergency preparedness measures. After several years of study, field testing and modifications,

standard lists of essential drugs and medical supplies for use in an emergency were developed. The aim was to encourage the standardization of drugs and medical supplies used in an emergency to permit a swift and effective response with supplies that meet priority health needs. A further goal was to promote disaster preparedness, since such standardization means that kits of essential items can be kept in readiness to meet urgent requirements.

The WHO Emergency Health Kit, which resulted from this work, was developed in the early 1980s in collaboration with the Office of the United Nations High Commissioner for Refugees (UNHCR) and the London School of Hygiene and Tropical Medicine. In 1988 it was revised with the help of the Emergency Preparedness Programme (WHO, Geneva), the Unit of Pharmaceuticals (WHO, Geneva), UNHCR, UNICEF, Médecins sans Frontières (MSF), the League of Red Cross and Red Crescent Societies (Geneva), the Christian Medical Commission of the World Council of Churches and the International Committee of the Red Cross.



Photo: IDA

The kit has been adopted by many organizations and national authorities as a reliable, standardized, inexpensive, appropriate and quickly available source of the essential drugs and health equipment urgently needed in a disaster situation. Its contents are calculated to meet the needs of a population of 10,000 persons for three months. In 1988 it was renamed "The New Emergency Health Kit" because of the number and diversity of United Nations agencies and other bodies which had adopted this list of drugs and medical supplies for their emergency operations and which participated in its revision.

A booklet providing background information on the development of the kit, comments on the selection of items, treatment guidelines for prescribers, and some useful checklists for suppliers and prescribers was published in 1990. This second edition follows the same format. Chapter 1 (Essential drugs and supplies in emergency situations) is intended as a general introduction for health administrators and field officers. Chapter 2 (Comments on the selection of drugs, medical supplies and equipment included in the kit) contains more technical details and is intended for prescribers.

The latest review of the New Emergency Health Kit began in December 1996, and was brought about not so much by the need to change the concept or content of the kit, but rather to adapt the list of drugs to changes that had taken place, over the years, in the selection of drugs on the WHO Model List of Essential Drugs; and also to bring the kit in line

with a new UN list of drugs recommended for use in acute emergencies (see references; Emergency Relief Items, Vol. 2, UNDP¹). The most important changes are summarized on page 11. The opportunity was also taken to make a number of necessary revisions to the text and annexes and to add two annexes containing Guidelines for Drug Donations and Model Guidelines for the International Provision of Controlled Medicines for Emergency Care. The WHO Divisions of Child Health and Development, Control of Tropical Diseases, Emergency and Humanitarian Action, Emerging and other Communicable Diseases Surveillance and Control, and Family and Reproductive Health all contributed to revision of the 1998 text and annexes, in addition to the original partners and the United Nations Population Fund (UNFPA).

The WHO Action Programme on Essential Drugs has coordinated the review process and has issued this interagency document. The support of all persons and organizations who have contributed to the revision process is gratefully acknowledged.

Please note: this book can be obtained at the following address. French, Spanish and Russian versions will also become available.

**WHO Action Programme
on Essential Drugs (DAP)
20 Avenue Appia
1211 Geneva 27
Switzerland
fax: 41 22 791 4167
e-mail: dapmail@who.ch**

¹ UNDP. *Emergency relief items, compendium of basic specifications, vol. 2. Medical supplies and equipment, selected essential drugs, guidelines for drug donations*. New York: United Nations Development Programme; 1996.

Chapter I

Essential drugs and supplies in emergency situations

What is an emergency?

The term “emergency” is applied to various situations resulting from natural, political and economic disasters. The New Emergency Health Kit 98 (NEHK98) is designed to meet the primary health care needs of a displaced population without medical facilities, or a population with disrupted medical facilities in the immediate aftermath of a disaster. It must be emphasized that, although supplying drugs and medical supplies in the standard kits is convenient early in an emergency, specific local needs must be assessed as soon as possible and further supplies must be ordered accordingly.

The NEHK98 is designed principally to meet the first primary health care needs of a displaced population without medical facilities. The kit is not recommended for re-supplying existing health care facilities.

Quantification of drug requirements

Morbidity patterns may vary considerably between emergencies. For example, in



Photo: WHO/Il Dagherroppo

emergencies where malnutrition is common morbidity rates may be very high. For this reason an estimate of drug requirements from a distance can only be approximate, although certain predictions can be made based on past experience. For the present kit estimates have been based on the average morbidity patterns among refugee populations and the use of standard treatment guidelines. The quantities of drugs supplied will therefore only be adequate if prescribers follow these guidelines.

Contents of the kit

NEHK98 consists of two different sets of drugs and medical supplies, named a *basic unit* and a *supplementary unit*. To facilitate

distribution to smaller health facilities on site, the quantities of drugs and medical supplies in the basic unit have been divided into ten identical units for 1,000 persons each.

The **basic unit** contains drugs, medical supplies and some essential equipment for primary health care workers with limited training. It contains 12 drugs, none of which are injectable. Simple treatment guidelines, based on symptoms, have been developed to help the training of personnel in the proper use of the drugs. Copies of these treatment guidelines, an example of which is printed in Annexes 1 to 3, should be included in each unit. Additional copies can be obtained from the Action Programme on Essential Drugs, WHO, Geneva.

The **supplementary unit** contains drugs and medical supplies for a population of 10,000 and is to be used only by professional health workers or physicians. It does not contain any drugs or supplies from the basic unit and can therefore only be used when these are available as well.

The selection and quantification of drugs for the basic and supplementary units have been based on recommendations for standard treatment regimens from technical units within WHO. A manual describing the standard treatment regimens for target diseases, developed in collaboration between Médecins

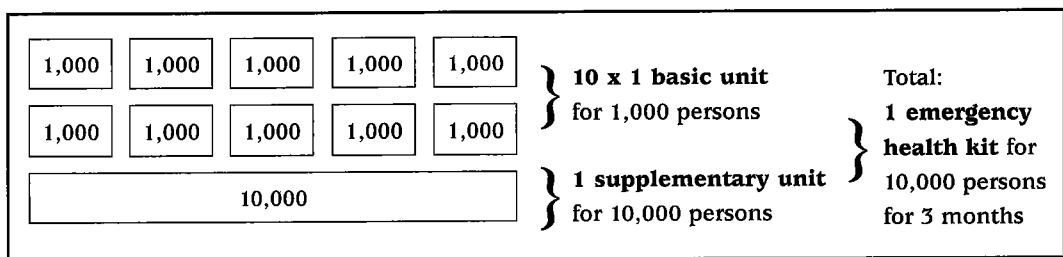
sans Frontières and WHO, is available from Médecins sans Frontières at cost price and one copy in English, French and Spanish is included in each supplementary unit.

To facilitate identification in an emergency, one green sticker (the international colour code for medical items) should be placed on each parcel. The word "BASIC" should be printed on stickers for basic units.

The supplementary unit does not contain any drugs or supplies from the basic units. The supplementary unit should only be used together with one or more basic units.

Referral system

Health services can be decentralized by the use of basic health care clinics (the most peripheral level of health care) providing simple treatment using the basic units. Such a decentralization will: (1) increase the access of the population to curative care; and (2) avoid overcrowding of referral facilities by solving common health problems at the most peripheral level. Basic treatment protocols have been drawn up to allow these health workers to take the right decision on treatment or referral, according to the symptoms.



The first referral level should be staffed by professional health workers, usually medical assistants or doctors, who will use drugs, supplies and equipment from both the basic and the supplementary units. It should be stressed here that the basic and supplementary units have not been intended to enable these health workers to treat rare diseases or major surgical cases. For such patients a second level of referral is needed, usually a district or general hospital. Such facilities are normally part of the national health system and referral procedures are to be arranged with the local health authorities. The UN list² of medical supplies, equipment and drugs is intended to supply this level of the health care system.

Drug and supply management control

An appropriate drug management system must be in place as soon as possible to maximize cost efficiency and to gather information allowing for re-supply to be based on specific needs. An appropriate drug management system should be based on:

- case definition and treatment protocols for significant public health diseases;
- morbidity and mortality statistics (see Annex 4);
- random checks to compare drug consumption data (see Annex 4) with morbidity statistics.

Procurement of the kit

NEHK98 can be provided from a number of major pharmaceutical suppliers, some of which have a permanent stock of kits ready for shipment within 24 hours. It may however be desirable to secure procurement at the regional level to reduce the cost of shipping. The procuring agency should ensure that manufacturers comply with the guidelines for quality, packaging and labelling of drugs and all items are compatible with the specifications in the UN list of medical supplies, equipment and drugs².

It is important to note that many drugs in the kit can be considered as examples of a therapeutic group and that other drugs can often serve as alternatives. This should be taken into consideration when drugs are selected at the national level, since the choice of drugs may then be influenced by whether equivalent products are immediately available from local sources, and their comparative cost and quality. National authorities may wish to stockpile the same or equivalent drugs and supplies as part of their emergency preparedness programme. The kit can also serve as a useful baseline supply list of essential drugs and medical supplies for primary health care.

Immunization in emergency

Experience in past emergencies involving displaced populations has shown that

² UNDP. *Emergency relief items, compendium of basic specifications, vol. 2. Medical supplies and equipment, selected essential drugs, guidelines for drug donations*. New York: United Nations Development Programme; 1996.

measles is one of the major causes of death amongst young children. The disease spreads rapidly in overcrowded conditions, and serious respiratory tract infections are frequent, particularly in malnourished children.

However, measles-related mortality is preventable. Measles vaccine administration should therefore be given a high priority, with all children between six months and five years old being immunized. Children immunized before nine months should be re-immunized as soon after nine months as possible. All children in the target age group should be immunized, irrespective of history. The occurrence of measles in a camp is not a contraindication.

Children with clinical measles should be treated promptly for complications, enrolled in a supplementary feeding programme and given appropriate doses of vitamin A.

NEHK98 is not designed for immunization or nutritional programmes: supplementary supplies and equipment must be ordered after an assessment of needs (see Annex 7).

Reproductive health

Certain reproductive services have been defined as essential for a displaced population after an emergency. Such essential services include: provisions for professional midwifery care, emergency contraception for victims of rape, treatment of sexually transmitted

infections and contraception in general. Supplies for the first two are included in the kit; others will have to be ordered separately according to need (see Annex 7).

Professional midwifery care is an essential service for which the necessary instruments and drugs are included in the kit. Sexual violence is widespread during the early phases of forced population movements. All possible measures should be taken to prevent and manage its occurrence and a small quantity of emergency contraception for victims of rape is included in the kit. It is acknowledged that cultural and religious beliefs may preclude some women and health workers from using this treatment, and it is strongly recommended that health workers assist the victim as much as possible in reaching an informed decision.

Comprehensive reproductive health services require to be integrated into the primary health care system as soon as possible and a referral system for obstetric emergencies must be made accessible to the population. It is also recommended that a qualified and experienced person be appointed as reproductive health coordinator. To assist a reproductive health programme the United Nations Population Fund (UNFPA) has designed a number of reproductive health kits for all levels of the health care system during an emergency (see Annex 7).

Post emergency needs

After the acute phase of an emergency is over and basic health needs have been covered by the basic and supplementary units, specific

needs for further supplies should be assessed as soon as possible. In most cases this will necessitate a quick description and, if possible, quantification of the morbidity profile (see Annex 4). It should characterize the most common diseases and should identify the exposed and high risk groups in the population (e.g. children below 5 years and pregnant women). These high risk groups should be the first target of the continuing health care programme. Any other factors that may influence requirements should also be taken into account, e.g. the demographic pattern of the community, the physical condition of the individuals, seasonal variations of morbidity and mortality, the impact of improved public health measures, the local availability of drugs and other supplies, drug resistance, usual medical practice in the country, capabilities of the health workers and the effectiveness of the referral system.

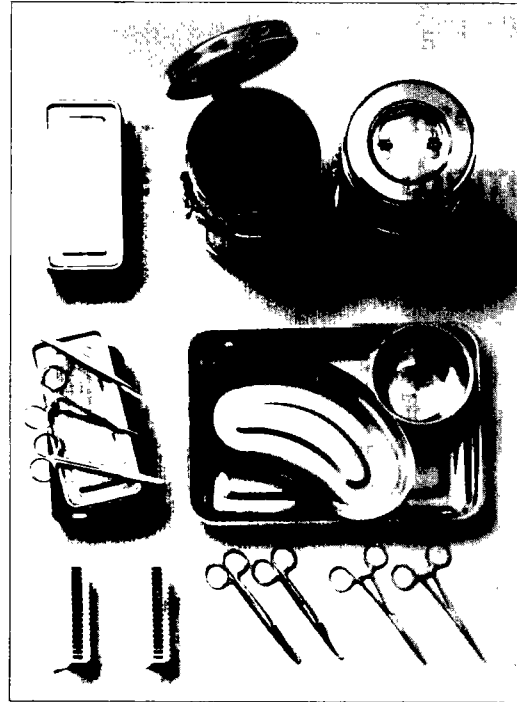


Photo WHO/IDA

It is not recommended to use NEHK98 for re-supplying health care systems.

Chapter 2

Comments on the selection of drugs, medical supplies and equipment included in the kit

The composition of NEHK 98 is based on epidemiological data, population profiles, disease patterns and certain assumptions borne out by emergency experience. These assumptions are:

- The most peripheral level of the health care system will be staffed by health workers with only limited medical training, who will treat symptoms rather than diagnosed diseases using the basic units and who will refer to the next level those patients who need more specialized treatment;
- Half of the population is 0–14 years of age;
- The average number of patients presenting themselves with the more common symptoms or diseases can be predicted;
- Standardized schedules will be used to treat these symptoms or diseases;
- The rate of referral from the basic to the next level is 10%;
- The first referral level of health care is staffed by experienced nurses, midwives, medical assistants or medical doctors, with no or very limited facilities for inpatient care. They will use the supplementary unit in conjunction with one or more basic units;
- If both the basic and first referral health care facilities are within reasonable reach



Photo: WHO/IDA

of the target population, every individual will, on average, visit such facilities four times per year for advice or treatment. As a consequence the supplies in the kit, which are sufficient for approximately 10,000 outpatient consultations, will serve a population of 10,000 people for a period of approximately 3 months.

Selection of the drugs

Injectable drugs

There are no injectable drugs in the basic unit. Basic health workers with little training have usually not been taught to prescribe injections, neither are they trained to

administer them. Moreover, the most common diseases in their uncomplicated form do not generally require an injectable drug. Any patient who needs an injection must be referred to the first referral level.

Antibiotics

Infectious bacterial diseases are common at all levels of health care, including the most peripheral, and basic health workers should therefore have the possibility to prescribe an antibiotic. However, many basic health workers have not been trained to prescribe antibiotics in a rational way. Cotrimoxazole is the only antibiotic included in the basic unit, and this will enable the health worker to concentrate on taking the right decision between prescribing an antibiotic or not, rather than on the choice between several antibiotics. Cotrimoxazole has been selected because it is active against the most common bacteria found in the field, especially *S. pneumoniae* and *H. influenzae* for acute respiratory infections. It is also stable under tropical conditions, needs to be taken only twice daily and its side-effects (exfoliative dermatitis or bone marrow depression) are uncommon. In addition to this it is less expensive than other antibiotics. The risk of increasing bacterial resistance must be reduced by rational prescribing practice.

Medication for children

The only paediatric tablet included in the list is paracetamol tab 100 mg. Syrups for children

are not included because of their instability, their short shelf life after reconstitution and their volume and weight. Instead, for children, half or quarter adult tablets may be crushed and administered with a small volume of fluid, with sweets or with food.

Drugs not included in the kit

The kit includes neither the common vaccines nor any drugs against communicable diseases such as tuberculosis³ or leprosy. The vaccines needed and any plans for an expanded programme on immunization should be discussed with the national authorities as soon as possible; the same applies for programmes to combat communicable diseases. In general no special programme should be initiated unless there is sufficient guarantee for its continuation over a longer period.

In addition, drugs in the kit do not cover some specific health problems occurring in certain geographical areas, e.g. specific resistant malaria strains. The treatment of choice for eclamptic fits is intravenous and intramuscular magnesium sulfate. Staff may however be unfamiliar with its use and diazepam, which has other therapeutic indications, therefore remains in the kit. Ergometrine injection requires a cold chain because it is unstable if subjected to high ambient temperatures, and is therefore not included in the kit. Oxytocin is being supplied instead. No specific drugs are

³ The general prerequisites for the establishment of a tuberculosis control programme for refugees and displaced persons are: 1) the emergency phase is over; 2) security in and stability of the camp or site is envisioned for at least six months; 3) basic needs of water, adequate food and sanitation are available; and 4) essential clinical services and drugs are available.

included for the treatment of sexually transmitted infections.

The kit does not contain:

vaccines
drugs for tuberculosis
drugs for leprosy
ergometrine injections
magnesium sulfate injections
drugs for specific resistant malaria strains
drugs for sexually transmitted infections
drugs for regular contraception
condoms

Selection of renewable supplies

Syringes and needles

Considering the risk of direct contamination with hepatitis and HIV during handling, needles are dangerous items. The health risk for the staff should be limited by the following means:

- limiting the number of injections;
- using disposable needles only;
- using disposable syringes whenever possible (always disposable autodestruct syringes in immunization campaigns);
- using safety boxes designed for the collection and incineration of used syringes and needles;
- strictly following the destruction procedures for disposable material.

It is less dangerous to handle syringes than needles. For this reason a system with resterilizable nylon syringes and disposable needles has been chosen for the supplementary

unit. However, in the very first stage, when sterilization procedures are not yet established, some provision will be necessary for giving injections by means of fully disposable materials. A small number of disposable syringes are therefore provided in the supplementary unit and their disposal should be supervised by the person in charge. Resterilizable syringes are likely to be phased out in the future.

It is strongly recommended that all the disposable syringes in the kit are substituted by autodestruct, single use syringes as soon as the right products become commercially available.

Gloves

Disposable protective gloves are provided in the basic unit to protect health workers against possible infection during dressings or handling of infected materials. In any case a dressing should be applied or changed with the instruments provided in the kit. Surgical gloves, which should be resterilizable, are supplied in the supplementary unit. They are to be used for deliveries, sutures and minor surgery, all under medical supervision.

Selection of equipment

Resuscitation/surgical instruments

The kit has been designed for general medicine under primitive conditions, and for that reason no equipment for resuscitation or major surgery has been included. In situations of war, earthquakes or epidemics, specialized teams with medical equipment and supplies will be required.

Sterilization

A complete sterilization set is provided in the kit. The basic units contain two small drums each for sterile dressing materials. Two drums are included to enable the alternate sterilization of one at the first referral level while the other is being used in the peripheral facility. The supplementary unit contains a kerosene stove and two pressure sterilizers, a small one for sterilizing 2 ml and 5 ml syringes, and a larger one for the small drums with dressing materials and the instrument sets.

Dilution and storage of liquids

The kit contains several plastic bottles and a few large disposable syringes which are needed to dilute and store liquids (e.g. benzyl benzoate, chlorhexidine and gentian violet solution).

Water supply

The kit contains several items to help provide for clean water at the health facility. Each basic unit contains a 20 litre foldable jerrycan and two 12 litre plastic buckets. The supplementary unit contains a water filter with candles and tablets of sodium dichloroisocyanurate (NaDCC) to chlorinate the water.⁴

Major drug, equipment and supply changes since the 1990 edition

morphine inj replaces pentazocine
naloxone inj added
probenecid tab deleted
amoxicillin tab replaces ampicillin tab
hydrocortisone tab replaces dexamethazone tab
doxycycline tab replaces tetracycline tab
silver sulfadiazine cream added
hydrochlorothiazide tab replaces furosemide tab
oxytocin inj replaces ergometrine
salbutamol tab replaces aminophylline
ethinylestradiol + levonorgestrel tab added
sodium dichloroisocyanurate (NaDCC) tab replaces chloramine powder
professional midwifery equipment added
tubes of ointments have been recommended (not containers which are less practical)

⁴ Each effervescent tablet containing 1.67 g of NaDCC releases 1 g of available chlorine when dissolved in water. NaDCC also goes under the name of sodium troclosene or sodium dichloro-s-triazinetriene.

Chapter 3

Composition of the New Emergency Health Kit 98

NEHK98 consists of 10 basic units and one supplementary unit.

10 basic units (for basic health workers), each unit for a population of 1,000 persons for 3 months. Each unit contains drugs, renewable supplies and basic equipment, and is packed in one carton.

One supplementary unit (for physicians and senior health workers, for a population of 10,000 people for three months). One supplementary unit contains:

- drugs (approximately 130 kg)
- essential infusions (approximately 180 kg)
- renewable supplies (approximately 60 kg)
- equipment (approximately 40 kg)

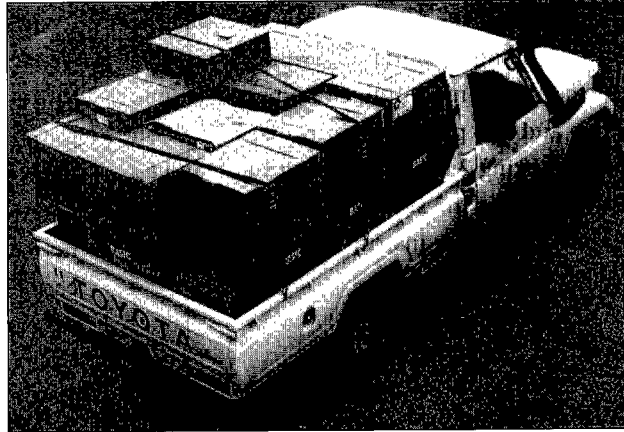
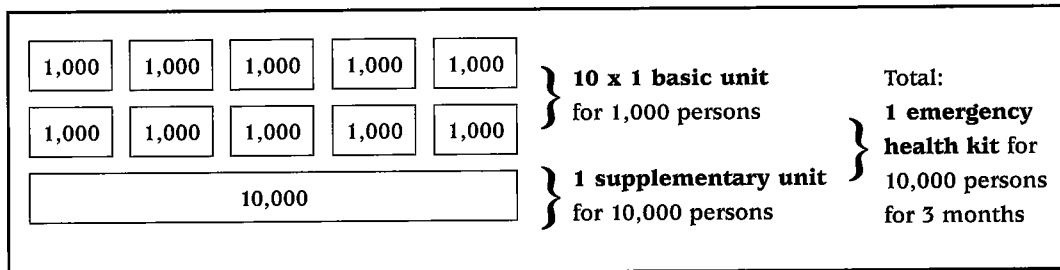


Photo: IDA

NB: The supplementary unit does not contain any drugs or medical supplies from the basic unit. To be operational, the supplementary unit should be used together with at least one or several basic units.



Basic unit (for 1,000 persons, 3 months)**Drugs**

| | | |
|---|--------------------|-------|
| acetylsalicylic acid, tab 300 mg | tab | 3,000 |
| aluminium hydroxide, tab 500 mg | tab | 1,000 |
| benzyl benzoate, lotion 25 % ⁵ | bottle 1 litre | 1 |
| chlorhexidine (5 %) ⁶ | bottle 1 litre | 1 |
| chloroquine, tab 150 mg base ⁷ | tab | 2,000 |
| ferrous sulfate + folic acid, tab 200 + 0.25 mg | tab | 2,000 |
| gentian violet, powder | 25 g | 4 |
| mebendazole, tab 100 mg | tab | 500 |
| ORS (oral rehydration salts) | sachet for 1 litre | 200 |
| paracetamol, tab 100 mg | tab | 1,000 |
| sulfamethoxazole + trimethoprim, tab 400 + 80 mg (cotrimoxazole) | tab | 2,000 |
| tetracycline eye ointment 1 % | tube 5 g | 50 |

Renewable supplies

| | | |
|---|------|-----|
| absorbent cotton wool | kg | 1 |
| adhesive tape 2.5 cm x 5 m | roll | 30 |
| bar of soap (100–200 g) | bar | 10 |
| elastic bandage 7.5 cm x 5m | unit | 20 |
| gauze bandage with selvedge 7.5 cm x 5 m | roll | 200 |
| gauze compresses 10 x 10 cm, 12 ply | unit | 500 |
| ballpen, blue or black | unit | 10 |
| exercise book A4, hard cover ⁸ | unit | 4 |

5 According to WHO recommendations, benzyl benzoate solution 25 % concentration is being supplied. The use of 90 % concentration is not recommended.

6 5 % solution is WHO standard. Chlorhexidine 20 % needs distilled water for dilution, otherwise precipitation may occur. Recommended alternatives include the combination of chlorhexidine 1.5 % and cetrimide 15 %.

7 The therapeutic dosage of chloroquine is usually expressed as milligrams of chloroquine base. A tablet of 150 mg chloroquine base (commonly used in anglophone countries) is equivalent to 204 mg chloroquine sulfate or 241 mg of chloroquine phosphate. Tablets of 100 mg chloroquine base (mostly used in francophone countries) are equivalent to 136 mg chloroquine sulfate or 161 mg chloroquine phosphate. For NEHK98, tablets of 150 mg base are recommended. The treatment guidelines (see Annex 1, page 23) are also expressed in tablets of 150 mg chloroquine base.

8 It is recommended that one exercise book be used for recording daily drug dispensing and another for daily basic morbidity data (see Annex 4).

| | | |
|--|------|-------|
| health card + plastic cover ⁹ | unit | 500 |
| small plastic bag for drugs | unit | 2,000 |
| notepad A6 | unit | 10 |
| thermometer, Celsius, clinical, flat type | unit | 6 |
| glove, examination, latex pre-powdered non sterile, disposable | unit | 100 |
| treatment guidelines for basic list ¹⁰ | unit | 2 |

Equipment

| | | |
|--|------|---|
| nail brush, plastic, autoclavable | unit | 2 |
| bucket, plastic, approximately 12 litres | unit | 2 |
| gallipot, stainless steel, 100 ml | unit | 1 |
| kidney dish, stainless steel, approximately 26 x 14 cm | unit | 1 |
| dressing set (3 instruments + box) ¹¹ | unit | 2 |
| dressing tray, stainless steel, approximately 30 x 15 x 3 cm | unit | 1 |
| drum for compresses with lateral clips 10 cm H, diam. 15 cm | unit | 2 |
| foldable jerrycan, 20 litres | unit | 1 |
| forceps Kocher, no teeth, 12–14 cm | unit | 2 |
| plastic bottle, 1 litre | unit | 3 |
| syringe Luer, disposable, 10 ml | unit | 1 |
| plastic bottle, 125 ml | unit | 1 |
| scissors straight/blunt, 12–14 cm | unit | 2 |

Supplementary unit (for 10,000 persons for 3 months)

Drugs

Anaesthetics

| | | |
|---------------------------------|------------|----|
| ketamine, inj 50 mg/ml | 10 ml/vial | 25 |
| lidocaine, inj 1% ¹² | 20 ml/vial | 50 |

⁹ For sample health card (see Annex 5).

¹⁰ For sample treatment guidelines (see Annexes 1, 2 and 3).

¹¹ Dressing set (3 instruments + box):

- 1 stainless steel box approximately 17 x 7 x 3 cm
- 1 pair surgical scissors, sharp/blunt, 12–14 cm
- 1 Kocher forceps, no teeth, straight, 12–14 cm
- 1 dissecting forceps, no teeth, 12–14 cm.

¹² 20 ml vials are preferred, although 50 ml vials may be used as an alternative.

| | | |
|---|--------------------------------|--------|
| Analgesics¹³ | | |
| morphine inj 10 mg/ml ¹⁴ | 1 ml/ampoule | 50 |
| Recall from basic unit: | | |
| acetylsalicylic acid, 300 mg/tab | (10 x 3,000) | 30,000 |
| paracetamol, 100 mg/tab | (10 x 1,000) | 10,000 |
| Anti-allergics | | |
| hydrocortisone powder 100 mg | 100 mg, powder for inj in vial | 50 |
| prednisolone, tab 5 mg | tab | 100 |
| epinephrine (adrenaline) see "respiratory tract" | | |
| Antidotes | | |
| naloxone inj 0.4 mg/ml ¹⁵ | 1 ml/ampoule | 20 |
| Anticonvulsants/anti-epileptics | | |
| diazepam, inj 5 mg/ml | 2 ml/ampoule | 200 |
| phenobarbital tab 50 mg | tab | 1,000 |
| Anti-infective drugs | | |
| amoxicillin, tab 250 mg | scored tab | 3,000 |
| ampicillin, inj 500 mg/vial | vial | 200 |
| benzathine benzylpenicillin, inj 2.4 million IU/vial (long acting penicillin) | vial | 50 |
| benzylpenicillin, inj 5 million IU /vial | vial | 250 |
| chloramphenicol, caps 250 mg | caps | 2,000 |
| chloramphenicol, inj 1 g/vial | vial | 500 |
| doxycycline, tab 100 mg | caps or tab | 2,000 |

¹³ Alternative injectable analgesics include pentazocine and tramadol which are considered inferior and are therefore not included in the WHO Model List of Essential Drugs. It is however recognized that these constitute a practical alternative to morphine in those situations where opioids cannot be sent.

¹⁴ Import and export permits are normally required for shipment of morphine as it is a controlled drug coming under the UN Single Convention on Narcotic Drugs. Pentazocine (previously recommended in the NEHK) and tramadol (supplied by some humanitarian organizations), diazepam and phenobarbital are now controlled drugs in some countries and come under control measures additional to the UN Convention on Psychotropic Substances, resulting in the requirement for an import permit before authorization of an export permit. The *Model guidelines for the international provision of controlled medicines for emergency care* (see Annex 9) are designed to facilitate supply of all such controlled drugs in emergencies.

¹⁵ Naloxone is an opioid antagonist given intravenously for the treatment of opioid overdose and to reverse the effects of therapeutic doses of opioids. It has been added because morphine is in the kit.

| | | |
|--|----------------|--------|
| metronidazole, tab 250 mg | tab | 2,000 |
| nystatin, non-coated tab ¹⁶ | 100,000 IU/tab | 1,000 |
| nystatin vaginal tab | 100,000 IU/tab | 1,000 |
| procaine benzylpenicillin, inj 3–4 million IU/vial ¹⁷ | vial | 750 |
| quinine, inj 300 mg/ml ¹⁸ | 2 ml/ampoule | 100 |
| quinine, sulfate, tab 300 mg | tab | 3,000 |
| sulfadoxine + pyrimethamine, tab 500 mg + 25 mg ¹⁹ | tab | 300 |
| Recall from basic unit: | | |
| mebendazole, tab 100 mg | (10 x 500) | 5,000 |
| cotrimoxazole, tab 400 + 80 mg | (10 x 2,000) | 20,000 |
| chloroquine, tab 150 mg base | (10 x 2,000) | 20,000 |
| Blood, drugs affecting the | | |
| folic acid, tab 5 mg | tab | 1,000 |
| Recall from basic unit: | | |
| ferrous sulfate + folic acid, tab 200 + 0.25 mg | (10 x 2000) | 20,000 |
| Cardiovascular drugs | | |
| methyldopa, 250 mg | tab | 500 |
| hydralazine, inj 20 mg | ampoule | 20 |
| Dermatological drugs | | |
| polyvidone iodine 10%, sol. ²⁰ | 200 ml bottle | 10 |
| silver sulfadiazine cream 1% | 50 g. tube | 30 |
| benzoic acid 6% + salicylic acid 3% ointment | 40 g tube | 25 |

16 For the treatment of oral candidiasis; it may be replaced by an equivalent quantity of nystatin suspension.

17 The combination of procaine benzylpenicillin 3 million IU and benzylpenicillin 1 million IU (procaine penicillin fortified) is used in many countries and may be included as an alternative.

18 For the treatment of cerebral and resistant malaria cases. Intravenous injection of quinine must always be diluted in 500 ml glucose 5%.

19 For the treatment of resistant malaria strains (check national protocols).

20 Polyvidone iodine has been chosen because the use of iodine tincture in hot climates may result in toxic concentrations of iodine by partial evaporation of the alcohol.

| | | |
|---|---------------------|-------|
| Recall from basic unit: | | |
| tetracycline eye ointment 1 % | (10 x 50) 500 | |
| gentian violet, powder 25 g | (10 x 4) 40 | |
| benzyl benzoate, lotion 25 %, litre | (10 x 1) 10 | |
| Diuretics | | |
| furosemide, inj 10 mg/ml | 2 ml/ampoule | 20 |
| hydrochlorothiazide, tab 25 mg | tab | 200 |
| Gastrointestinal drugs | | |
| promethazine, tab 25 mg | tab | 500 |
| promethazine, inj 25 mg/ml | 2 ml/ampoule | 50 |
| atropine, inj 1 mg/ml | 1 ml/ampoule | 50 |
| Recall from basic unit: | | |
| aluminium hydroxide, tab 500 mg | (10 x 1,000) 10,000 | |
| Emergency contraceptives²¹ | | |
| ethinylestradiol 50 micrograms + levonorgestrel 250 micrograms ²² | (pack of 4) | 100 |
| Oxytocics | | |
| oxytocin inj 10 IU / ml ²³ | 1 ml ampoule | 200 |
| Psychotherapeutic drugs | | |
| chlorpromazine, inj 25 mg/ml | 2 ml/ampoule | 20 |
| Respiratory tract, drugs acting on | | |
| salbutamol, tab 4 mg | tab | 1,000 |
| aminophylline, inj 25 mg/ml | 10 ml/ampoule | 50 |
| epinephrine (adrenaline), inj 1 mg/ml | 1 ml/ampoule | 50 |

²¹ A small quantity of emergency contraceptives is included in the kit for victims of rape. It is acknowledged that cultural and religious beliefs may preclude some women and health workers from using this treatment. It is strongly recommended that health workers assist the victim as much as possible in reaching an informed decision.

²² Women who seek help within 72 hours of rape and wish to use emergency contraception to prevent pregnancy should take two tablets of ethinylestradiol 50 micrograms + levonorgestrel 250 micrograms followed by two more tablets 12 hours later.

²³ For treatment and prevention of postpartum haemorrhage.

Solutions correcting water, electrolyte and acid-base disturbances²⁴

| | | |
|---|--------------------|-------|
| compound solution of sodium lactate (Ringer's lactate), inj sol., with giving set and needle | 500 ml/bag | 200 |
| glucose, inj sol. 5%, with giving set and needle ²⁵ | 500 ml/bag | 100 |
| glucose, inj sol. 50% | 50 ml/vial | 20 |
| water for injection | 10 ml/plastic vial | 2,000 |

Recall from basic unit:

| | | |
|------------------------|------------|------|
| oral rehydration salts | (10 x 200) | 2000 |
|------------------------|------------|------|

Vitamins

| | | |
|--------------------------------------|------|-------|
| retinol (Vitamin A), caps 200,000 IU | caps | 4,000 |
| ascorbic acid, tab 250 mg | tab | 4,000 |

Renewable supplies

| | | |
|---|------|-------|
| scalp vein infusion set, disposable 25 G (diam. 0.5 mm) | unit | 300 |
| scalp vein infusion set, disposable, 21G (diam. 0.8 mm) | unit | 100 |
| IV placement canula, disposable, 18G (diam. 1.3 mm) | unit | 15 |
| IV placement canula, disposable, 22G (diam. 0.8 mm) | unit | 15 |
| IV placement canula, disposable, 24G (diam. 0.7 mm) | unit | 15 |
| needle Luer IV, disposable 19G (diam. 1.1 mm x 38 mm) | unit | 1,000 |
| needle Luer IM, disposable, 21G (diam. 0.8 mm x 40 mm) | unit | 2,000 |
| needle Luer SC, disposable 25G (diam. 0.5 mm x 16 mm) | unit | 100 |
| spinal needle, disposable, 22G (diam. 0.7 x 40 mm) black | unit | 25 |
| spinal needle, disposable, 20G (diam. 0.9 x 90 mm) yellow | unit | 25 |
| syringe Luer, resterilizable, nylon, 2 ml (diam. 0.9 x 90 mm) ²⁶ | unit | 20 |
| syringe Luer, resterilizable, nylon, 5 ml | unit | 100 |
| syringe Luer, resterilizable, nylon, 10 ml | unit | 40 |
| syringe Luer, disposable, 2 ml ²⁶ | unit | 400 |
| syringe Luer, disposable, 5 ml | unit | 500 |
| syringe Luer, disposable, 10 ml | unit | 200 |

²⁴ Because of the weight, the quantity of infusions included in the kit is minimal. Look for local supply, once in the field.

²⁵ Glucose 5%, bag 500 ml, for administration of quinine by infusion.

²⁶ There is increasing international agreement to promote the use of disposable syringes and needles, and resterilizable syringes are likely to be phased out in the future. Disposable syringes should be substituted by autodestruct single use syringes as soon as proven practicable products become commercially available.

| | | |
|--|---------------------------|---------------|
| syringe Luer conical connector (for feeding), 60 ml | unit | 20 |
| feeding tube, CH 5 or 6 (premature baby), Luer tip, 40 cm disposable | unit | 20 |
| feeding tube, CH 8, Luer tip, 40 cm disposable | unit | 50 |
| feeding tube, CH 16, conical tip, 125 cm disposable | unit | 10 |
| urinary catheter (Foley), no. 12, disposable | unit | 10 |
| urinary catheter (Foley), no. 14, disposable | unit | 5 |
| urinary catheter (Foley), no. 18, disposable | unit | 5 |
| surgical gloves sterile and resterilizable no. 6.5 | pair | 50 |
| surgical gloves sterile and resterilizable no. 7.5 | pair | 150 |
| surgical gloves sterile and resterilizable no. 8.5 | pair | 50 |
| safety box for disposal of used syringes and needles 5L ²⁷ | unit | 20 |
| Recall from basic unit: | | |
| <i>glove, examination, non sterile disposable</i> | <i>(100 units x 10)</i> | <i>1,000</i> |
| sterilization test tape (for autoclave) | roll | 2 |
| sodium dichloroisocyanurate (NaDCC) tabs 1.67 g | tab | 1,200 |
| thermometer, Celsius, clinical, flat type | unit | 10 |
| spare bulb for otoscope | unit | 4 |
| batteries R6 alkaline AA size (for otoscope) | unit | 12 |
| Recall from basic unit: | | |
| <i>thermometer, Celsius, clinical, flat type</i> | <i>(6 units x 10)</i> | <i>60</i> |
| <i>ballpens</i> | <i>(10 units x 10)</i> | <i>100</i> |
| <i>hardcover exercise book</i> | <i>(4 units x 10)</i> | <i>40</i> |
| <i>health card + plastic cover</i> | <i>(500 units x 10)</i> | <i>5,000</i> |
| <i>plastic bag for drugs</i> | <i>(2,000 units x 10)</i> | <i>20,000</i> |
| <i>small notepads (A6)</i> | <i>(10 units x 10)</i> | <i>100</i> |
| urine collecting bag with valve, 2,000 ml | unit | 10 |
| glove, examination, latex non sterile large | unit | 100 |
| glove, examination, latex non sterile medium | unit | 100 |
| glove, examination, latex non sterile small | unit | 100 |
| mucus extractor, disposable | unit | 5 |
| suture, synthetic absorbable, braided, 70cm metric size DEC. 3 (USP 00), with cutting needle 3/8 circle, 30mm | <i>(4 x 36 units)</i> | 144 |

²⁷ WHO/UNICEF standard E10/IC2: boxes should be prominently marked.

| | | |
|--|------|-------|
| surgical blade (surgical knives) no. 22 for handle no. 4 | unit | 50 |
| tape umbilical non sterile 3 mm wide x 100 m spool | unit | 1 |
| razor blade | unit | 100 |
| tongue depressor (wooden, disposable) | unit | 100 |
| gauze roll 90 m x 0.90 m | roll | 3 |
| gauze compresses, 10 x 10 cm, 12 ply, sterile | unit | 1,000 |

Recall from basic unit:

| | |
|--|------------------------|
| absorbent cotton wool | (1 kg x 10) 10 |
| adhesive tape 2.5 cm x 5 cm | (30 rolls x 10) 300 |
| bar of soap (100–200g/bar) | (10 bars x 10) 100 |
| elastic bandage, 7.5 cm x 5 m | (20 units x 10) 200 |
| gauze bandage with selvedge, 7.5 x 5 m | (200 rolls x 10) 2,000 |
| gauze compress 10 x 10 cm, 12 ply, non sterile | (500 units x 10) 5,000 |

Equipment

| | | |
|---|------|----|
| apron, utility plastic reusable | unit | 2 |
| clinical stethoscope, dual cup | unit | 4 |
| obstetrical stethoscope (metal) | unit | 1 |
| sheeting, plastic PVC clear 90 cm x 180 cm | unit | 2 |
| sphygmomanometer (adult) | unit | 4 |
| razor non disposable | unit | 2 |
| scale for adult | unit | 1 |
| scale, hanging, 25 kg x 100 g (Salter type) + trousers | unit | 3 |
| tape measure (cm/mm) | unit | 5 |
| tape measure, mid-upper arm circumference, MUAC | unit | 10 |
| towel HUCK, 430 mm x 500 mm | unit | 2 |
| drum for compresses, lateral ellipses H: 10 cm, diam. 15 cm | unit | 2 |

Recall from basic unit:

| | |
|---|-------------------|
| drum for compresses, lateral ellipses H: 15 cm, diam. 15 cm | (2 units x 10) 20 |
|---|-------------------|

| | | |
|--|------|---|
| otoscope + set of reusable paediatric specula | unit | 2 |
| tourniquet | unit | 2 |
| dressing tray, stainless steel, approximately 30 x 20 x 3 cm | unit | 1 |
| kidney dish, stainless steel, approximately 26 x 14 cm | unit | 2 |
| scissors straight/blunt, 12/14 cm | unit | 2 |
| forceps Kocher no teeth, 12/14 cm | unit | 2 |

| | | |
|--|--------------------------|---|
| Recall from basic unit: | | |
| <i>kidney dish, stainless steel, approximately 26 x 14 cm</i> | <i>(1 unit x 10) 10</i> | |
| <i>gallipot, stainless steel, 100 ml</i> | <i>(1 unit x 10) 10</i> | |
| <i>dressing tray, stainless steel, approximately 30 x 20 x 3 cm</i> | <i>(1 unit x 10) 10</i> | |
| <i>scissors straight/blunt, 12-14 cm</i> | <i>(2 units x 10) 20</i> | |
| <i>forceps Kocher no teeth, 12-14 cm</i> | <i>(2 units x 10) 20</i> | |
| abscess/suture set (7 instruments + box) ²⁸ | unit | 2 |
| dressing set (3 instruments + box) ²⁹ | unit | 5 |
| delivery set ³⁰ | unit | 1 |
| Recall from basic unit: | | |
| <i>dressing set (3 instruments + box)</i> | <i>(2 units x 10) 20</i> | |
| pressure sterilizer, 15 litres (type: Prestige 7503, double rack) | unit | 1 |
| pressure sterilizer 21 litres with basket | unit | 1 |
| kerosene stove, single burner, tank capacity 1-2 litres (type UNICEF 017. 0000) | unit | 2 |

28 One suture set should be reserved for repair of postpartum vaginal tears.

Abscess/suture set (7 instruments + box):

- 1 stainless steel box approx. 20 x 10 x 5 cm
- 1 dissecting forceps with teeth, 12-14 cm
- 1 Kocher forceps with teeth, straight, 12-14 cm
- 1 Pean forceps straight, 12-14 cm
- 1 pair surgical scissors sharp/blunt, 12-14 cm
- 1 probe, 12-14 cm
- 1 Mayo-Hegar needle holder, 18 cm
- 1 handle scalpel, no 4

29 Dressing set (3 instruments + box):

- 1 stainless steel box approx. 17 x 7 x 3 cm
- 1 pair surgical scissors sharp/blunt, 12-14 cm
- 1 Kocher forceps, no teeth, straight, 12-14 cm
- 1 dissecting forceps, no teeth, 12-14 cm

30 Delivery set (3 instruments + box):

- 1 stainless steel box approx. 20 x 7 x 3 cm
- 1 scissors straight 14-15 cm B/B SS
- 1 scissors dissecting straight Mayo 16-18 cm SS
- 1 Forceps haemostat straight Rochester Pean 15-17 cm SS

| | | |
|---|-----------------------|-----------|
| water filter with candles, 10/20 litres (type UNICEF 561.9902) | unit | 3 |
| nail brush, plastic, autoclavable | unit | 2 |
| Recall from basic unit: | | |
| <i>plastic bottle, 1 litre</i> | <i>(3 units x 10)</i> | <i>30</i> |
| <i>syringe Luer, disposable, 10 ml</i> | <i>(1 unit x 10)</i> | <i>10</i> |
| <i>plastic bottle, 125 ml</i> | <i>(1 unit x 10)</i> | <i>10</i> |
| <i>nail brush, plastic, autoclavable</i> | <i>(2 units x 10)</i> | <i>20</i> |
| <i>bucket plastic, 12 litres</i> | <i>(2 unit x 10)</i> | <i>20</i> |
| <i>foldable jerrycan, 20 litres</i> | <i>(1 unit x 10)</i> | <i>10</i> |
| MSF Clinical guidelines (diagnostic and treatment manual) ³¹ | unit | 2 |

³¹ *Clinical guidelines – diagnostic and treatment manual* is available at cost price in English, French and Spanish from Médecins sans Frontières.

Annex I

Basic unit: treatment guidelines

These treatment guidelines are intended to give simple guidance for the training of primary health care workers using basic units. In the dosage guidelines, five age groups have been distinguished, except for the treatment of diarrhoea with oral rehydration fluid where six age and weight categories are used. When dosage is shown as 1 tab x 2, one tablet should be taken in the morning and one before bedtime. When dosage is shown as 2 tab x 3, two tablets should be taken in the morning, two should be taken in the middle of the day and two before bedtime.

The treatment guidelines contain the following diagnostic/symptom groups:

- anaemia
- pain
- diarrhoea (see detailed diagnosis and treatment schedules in Annex 2)
- fever
- respiratory tract infections (see detailed diagnosis and treatment schedules in Annex 3)
- ear infections
- measles
- eyes
- skin conditions
- sexually transmitted and urinary tract infections
- preventive care in pregnancy
- worms.



Photo. CICRUG, Lebrianc

| Anaemia | | | | | | |
|---|---------------|--|--|--|--|-----------|
| <i>Diagnosis Symptom</i> | <i>Weight</i> | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + |
| | <i>Age</i> | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + |
| Severe anaemia (oedema, dizziness, shortness of breath) | Refer | | | | | |
| Moderate anaemia (pallor and tiredness) | Refer | ferrous sulfate + folic acid 1 tab daily for at least 2 months | ferrous sulfate + folic acid 2 tab daily for at least 2 months | ferrous sulfate + folic acid 3 tab daily for at least 2 months | ferrous sulfate + folic acid 3 tab daily for at least 2 months | |

| Pain | | | | | | |
|--|---------------|---------------|---------------------------------------|-------------------------------------|--|--|
| <i>Diagnosis Symptom</i> | <i>Weight</i> | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + |
| | <i>Age</i> | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + |
| Pain (headache, joint pain, toothache) | | | paracetamol tab 100 mg 1/2 tab x 3 | paracetamol tab 100 mg 1 tab x 3 | ASA ^{32,33} tab 300 mg 1 tab x 3 | ASA tab 300 mg 2 tab x 3 |
| Stomach pain | | | | Refer | aluminium hydroxide 1/2 tab x 3 for 3 days | aluminium hydroxide 1 tab x 3 for 3 days |

³² ASA = acetylsalicylic acid.

³³ For children under 12 paracetamol is to be preferred because of the risk of Reye's Syndrome.

| Diarrhoea | | | | | | | |
|--|--|-----------------------|------------------|-------------------|----------------|-----------------|----------------------|
| Diagnosis Symptom | Weight | 0 – < 5 kg | 5 – 7.9 kg | 8 – 10.9 kg | 11 – 15.9 kg | 16 – 29.9 kg | 30 kg + |
| | Age* | Less than 4 months | 4 – 11 months | 12 – 23 months | 2 – 4 years | 5 – 14 years | 15 years or older |
| Diarrhoea with some dehydration (Plan B, WHO) Annex 2c | Approximate amount of ORS solution to give in the first 4 hours. | | | | | | |
| Quantity of ORS in mls. | 200 – 400 | 400 – 600 | 600 – 800 | 800 – 1,200 | 1,200 – 2,200 | 2,200 – 4,000 | |
| Diarrhoea lasting more than two weeks or in malnourished or poor condition patient | Give ORS according to dehydration stage and refer . | | | | | | |
| Bloody diarrhoea ³⁴ (check the presence of blood in stools) | Give ORS according to dehydration stage and refer . | | | | | | |
| Diarrhoea with severe dehydration (Plan C, WHO) Annex 2d | Refer patient for nasogastric tube and/or IV treatment. | | | | | | |
| Diarrhoea with no dehydration (Plan A, WHO), Annex 2b | Continue to feed. Advise the patient to return to the health worker in case of frequent stools, increased thirst, sunken eyes, fever or when the patient does not eat or drink normally, or does not get better within three days, or develops blood in the stool or repeated vomiting. | | | | | | |

* Use the patient's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the patient's weight (in grams) times 0.075.

Use of drugs for children with diarrhoea

- ANTIBIOTICS should ONLY be used for dysentery and for suspected cholera cases with severe dehydration. Otherwise they are ineffective and should NOT be given.
- ANTIPARASITIC drugs should ONLY be used for:
 - Amoebiasis, after antibiotic treatment of bloody diarrhoea for **shigella** has failed or trophozoites of **E. Histolytica** containing red blood cells are seen in the faeces.
 - **Giardiasis**, when diarrhoea has lasted at least 14 days **and** cysts or trophozoites of *Giardia* are seen in faeces or small bowel fluid.
- ANTIDIARRHOEAL DRUGS and ANTIEMETICS should NEVER be used. None has proven value and some are dangerous.

³⁴ Protocol to be established according to epidemiological data. See references page 69.

| Fever | | | | | | |
|--|--------------|---|---|---|---|-----------|
| Diagnosis Symptom | Weight | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + |
| | Age | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + |
| Fever in malnourished or poor condition patient or when in doubt | Refer | | | | | |
| Fever with chills ³⁵ assuming it is malaria | Refer | chloroquine tab 150 mg base 1/2 tab at once, then 1/2 tab after 24h and 1/2 tab after 48h | chloroquine tab 150 mg base 1 tab at once, then 1 tab after 24h and 1/2 tab after 48h | chloroquine tab 150 mg base 2 tab at once, then 2 tab after 24h and 1 tab after 48h | chloroquine tab 150 mg base 4 tab at once, then 4 tab after 24h and 2 tab after 48h | |
| Fever with cough | Refer | See "Respiratory tract infections" (on following page) | | | | |
| Fever (unspecified) | Refer | paracetamol tab 100 mg 1/2 tab x 3 for 1 to 3 days | paracetamol tab 100 mg 1 tab x 3 for 1 to 3 days | ASA ³⁶ tab 300 mg 1 tab x 3 for 1 to 3 days | ASA tab 300 mg 2 tab x 3 for 1 to 3 days | |

NB

Resistance to chloroquine is increasing and it is difficult to give a global recommendation for the treatment of malaria. There is an international trend to replace chloroquine with sulfadoxine + pyrimethamine. It is recommended to seek advice from the national malaria programme.

³⁵ Chloroquine 150 mg base is equivalent to approximately 250 mg chloroquine phosphate or to approximately 200 mg chloroquine sulfate. See also footnote 8 on page 13.

³⁶ For children under 12 paracetamol is to be preferred because of the risk of Reye's Syndrome.

| Respiratory tract infections | | | | | | |
|---|---|---|---|---|---|-----------|
| Diagnosis Symptom | Weight | 0 – < 4 kg | 4 – < 8 kg | 8 – < 15 kg | 15 – < 35 kg | 35 kg + |
| | Age | 0 – < 2 mths. | 2 mths. – < 1 yr. | 1 – < 5 yrs. | 5 – < 15 yrs. | 15 yrs. + |
| Severe pneumonia Annex 3 | Give the first dose of cotrimoxazole (see pneumonia) and refer . | | | | | |
| Pneumonia Annex 3 | Refer | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1/2 tab x 2 for 5 days | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1 tab x 2 for 5 days | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1 tab x 2 for 5 days | cotrimoxazole tab 400 mg SMX + 80 mg TMP 2 tab x 2 for 5 days | |
| Reassess after 2 days; continue (breast) feeding, give fluids, clear the nose; return if breathing becomes faster or more difficult, or not able to drink or when the condition deteriorates. | | | | | | |
| No pneumonia: cough or cold Annex 3 | Refer | paracetamol ³⁷ tab 100 mg 1/2 tab x 3 for 1 to 3 days | paracetamol tab 100 mg 1 tab x 3 for 1 to 3 days | ASA ³⁸ tab 300 mg 1 tab x 3 for 1 to 3 days | ASA tab 300 mg 2 tab x 3 for 1 to 3 days | |
| Supportive therapy; continue (breast) feeding, give fluids, clear the nose; return if breathing becomes faster or more difficult, or not able to drink or when the condition deteriorates. | | | | | | |
| Prolonged cough (over 30 days) | Refer | | | | | |

| Ear infections | | | | | |
|--|--------------|--|---|---|---|
| Acute ear pain and/or ear discharge for less than 2 weeks | Refer | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1/2 tab x 2 for 5 days ³⁷ | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1 tab x 2 for 5 days ³⁷ | cotrimoxazole tab 400 mg SMX + 80 mg TMP 1 tab x 2 for 5 days | cotrimoxazole tab 400 mg SMX + 80 mg TMP 2 tab x 2 for 5 days |
| Ear discharge for more than 2 weeks, no pain or fever | | Clean the ear once daily by syringe without needle using lukewarm clean water. Repeat until water comes out clean. Dry repeatedly with clean piece of cloth. | | | |

37 If fever is present.

38 For children under 12 paracetamol is to be preferred because of the risk of Reye's Syndrome.

| Measles | | | | | | |
|----------------------|--------|---|-------------------|--------------|---------------|-----------|
| Diagnosis Symptom | Weight | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + |
| | Age | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + |
| Measles | | | | | | |
| | | Treat respiratory tract disease according to symptoms. Treat conjunctivitis as "Red eyes". Treat diarrhoea according to symptoms. Continue (breast) feeding, give retinol (vitamin A). | | | | |

| Eyes | |
|------------------------------|--|
| Red eyes (conjunctivitis) | Apply tetracycline eye ointment 3 times a day for 7 days. If not improved after 3 days or in doubt, refer . |

| Skin conditions | |
|---|---|
| Wounds: extensive, deep or on face | Refer |
| Wounds: limited and superficial | Clean with clean water and soap or diluted chlorhexidine solution ³⁹ . Gently apply gentian violet solution ⁴⁰ once a day. |
| Severe burns (on face or extensive) | Treat as for mild burns and refer . |
| Mild moderate burns | Immerse immediately in cold water, or use a cold wet cloth. Continue until pain eases then, treat as wounds. |
| Severe bacterial infection (with fever) | Refer |
| Mild bacterial infection | Clean with clean water and soap or diluted chlorhexidine solution. ³⁹ Apply gentian violet solution ⁴⁰ twice a day. If not improved after 10 days refer . |
| Fungal infections | Apply gentian violet solution ⁴⁰ once a day for 5 days. |
| Infected scabies | Bacterial infection: clean with clean water and soap or diluted chlorhexidine solution ³⁹ . Apply gentian violet solution ⁴⁰ twice a day. <i>When infection is cured:</i> Apply diluted benzyl benzoate ⁴¹ once a day for 3 days. Apply non diluted benzyl benzoate 25% once a day for 3 days. |
| Non infected scabies | Apply diluted benzyl benzoate ⁴¹ once a day for 3 days. Apply non diluted benzyl benzoate 25% once a day for 3 days. |

Sexually transmitted and urinary tract infections

| | |
|--|--------------|
| Suspicion of sexually transmitted or urinary tract infection | Refer |
|--|--------------|

Preventive care in pregnancy

| Diagnosis Symptom | Weight | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + |
|--|--------|---------------|-------------------|--------------|---------------|---|
| | Age | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + |
| Anaemia for treatment see under anaemia | | | | | | ferrous sulfate + folic acid 1 tab daily throughout pregnancy |
| Malaria for treatment see under fever | | | | | | chloroquine ⁴² tab 150 mg base 2 tab weekly throughout pregnancy |

NB

Resistance to chloroquine is increasing and it is difficult to give a global recommendation for malaria prophylaxis in pregnancy. It is recommended to seek advice from the national malaria programme.

39 Chlorhexidine 5% must always be diluted before use: 20 ml in 1 litre of water. Take the one litre plastic bottle supplied with the kit; put 20 ml of chlorhexidine solution into the bottle using the 10 ml syringe supplied and fill up the bottle with boiled or clean water. Chlorhexidine 1.5% + cetrimide 15% solution should be used in the same dilution.

40 Gentian violet 0.5% concentration = 1 teaspoon of gentian violet powder per litre of boiled/clean water. Shake well, or use warm water to dissolve all powder.

41 Dilute by mixing one half litre benzyl benzoate 25% with one half litre clean water in the one litre plastic bottle supplied with the kit.

42 Chloroquine 150 mg base is equivalent to approximately 250 mg chloroquine phosphate or to approximately 200 mg chloroquine sulfate. See also footnote 8, page 13.

| Worms⁴³ | | | | | | | |
|------------------------------|---------------|---------------|-------------------|--|--|--|--|
| <i>Diagnosis Symptom</i> | <i>Weight</i> | 0 - < 4 kg | 4 - < 8 kg | 8 - < 15 kg | 15 - < 35 kg | 35 kg + | |
| | <i>Age</i> | 0 - < 2 mths. | 2 mths. - < 1 yr. | 1 - < 5 yrs. | 5 - < 15 yrs. | 15 yrs. + | |
| Roundworm Pinworm | | | | mebendazole tab 100 mg 2 tab once | mebendazole tab 100 mg 2 tab once | mebendazole tab 100 mg 2 tab once | |
| Hookworm | | | | mebendazole tab 100 mg 1 tab x 2 for 3 days | mebendazole tab 100 mg 1 tab x 2 for 3 days | mebendazole tab 100 mg 1 tab x 2 for 3 days | |

⁴³ Note: treatment of hookworm in pregnancy with mebendazole is recommended in endemic areas: mebendazole can be safely given in the second and third trimesters of pregnancy.

Annex 2

Assessment and treatment of diarrhoea

Annex 2a: Assessment of diarrhoeal patients for dehydration

| First assess your patient for dehydration | | | |
|---|--|---|---|
| | A | B | C |
| 1. Look at: general condition | well, alert | <i>*restless, irritable*</i> | <i>*lethargic or unconscious; floppy*</i> |
| eyes ⁴⁴ | normal | sunken | very sunken and dry |
| tears | present | absent | absent |
| mouth and tongue ⁴⁵ | moist | dry | very dry |
| thirst | drinks normally, not thirsty | <i>*thirsty, drinks eagerly*</i> | <i>*drinks poorly or not able to drink*</i> |
| 2. Feel: skin pinch ⁴⁶ | goes back quickly | <i>*goes back slowly*</i> | <i>*goes back very slowly*</i> |
| 3. Decide: | The patient has <i>no signs of dehydration</i> | If the patient has two or more signs, including at least one <i>*sign*</i> there is <i>some dehydration</i> | If the patient has two or more signs, including at least one <i>*sign*</i> there is <i>severe dehydration</i> |
| 4. Treat: | Use Treatment Plan A | Weigh the patient, if possible and use Treatment Plan B | Weigh the patient and use Treatment Plan C urgently |

Source: WHO. *The treatment of diarrhoea, a manual for physicians and other senior health workers*. Geneva: World Health Organization; 1995. WHO/CDR/95.3

44 In some infants and children the eyes normally appear somewhat sunken. It is helpful to ask the mother if the child's eyes are normal or more sunken than usual.

45 Dryness of the mouth and tongue can also be palpated with a clean finger. The mouth may always be dry in a child who habitually breathes through the mouth. The mouth may be wet in a dehydrated patient owing to recent vomiting or drinking.

46 The skin pinch is less useful in infants or children with marasmus (severe wasting) or kwashiorkor (severe undernutrition with oedema) or in obese children.

Annex 2b: Treatment Plan A to treat diarrhoea at home

Use this plan to teach the mother to:

- continue to treat at home her child's current episode of diarrhoea;
- give early treatment for future episodes of diarrhoea.

Explain the three rules for treating diarrhoea at home:

1. Give the child more fluids than usual to prevent dehydration

- Use recommended home fluids. These include: ORS solution, food-based fluids (such as soup, rice water and yogurt drinks) and plain water. Use ORS solution for children described in the box below. (Note: if the child is under 6 months and not yet taking solid food, give ORS solution or water rather than food-based fluid.)
- Give as much of these fluids as the child will take. Use the amounts shown below for ORS as a guide.
- Continue giving these fluids until the diarrhoea stops.

2. Give the child plenty of food to prevent undernutrition

- Continue to breast-feed frequently.
- If the child is not breast-fed, give the usual milk.
- If the child is six months or older, or already taking solid food:
 - also give cereal or another starchy food mixed, if possible, with pulses, vegetables, and meat or fish; add 1 or 2 teaspoonfuls of vegetable oil to each serving;
 - give fresh fruit juice or mashed banana to provide potassium;
 - give freshly prepared foods; cook and mash or grind food well;
 - encourage the child to eat: offer food at least 6 times a day;
 - give the same food after diarrhoea stops, and give an extra meal each day for two weeks.

3. Take the child to the health worker if the child does not get better in three days or develops any of the following:

- many watery stools
- repeated vomiting
- marked thirst
- eating or drinking poorly
- fever
- blood in the stool

Children should be given ORS solutions at home if:

- they have been on Treatment Plan B or C;
- they cannot return to the health worker if the diarrhoea gets worse;
- it is national policy to give ORS to all children who see a health worker for diarrhoea.

If the child will be given ORS solution at home, show the mother how much ORS to give after each loose stool and give her enough packets for two days.

| Age | Amount of ORS to be given after each loose stool | Amount of ORS to provide for use at home |
|---------------------|--|--|
| Less than 24 months | 50 – 100 ml | 500 ml/day |
| 2 to 10 years | 100 – 200 ml | 1,000 ml/day |
| 10 years or more | as much as wanted | 2,000 ml/day |

- Describe and show the amount to be given after each stool using a local measure.

Show the mother how to mix ORS.

Show her how to give ORS.

- Give a teaspoonful every 1–2 minutes for a child under 2 years.
- Give frequent sips from a cup for older children.
- If the child vomits, wait 10 minutes. Then give the solution more slowly (for example, a spoonful every 2–3 minutes).
- If diarrhoea continues after the ORS packets are used up, tell the mother to give other fluids as described in the first rule above or return for more ORS.

Annex 2c: Treatment Plan B to treat dehydration

| Approximate amount of ORS solution to give in the first 4 hours | | | | | | |
|--|--------------------|---------------|----------------|--------------|---------------|-------------------|
| <i>Age*</i> | Less than 4 months | 4 - 11 months | 12 - 23 months | 2 - 4 years | 5 - 14 years | 15 years or older |
| Weight | 0 - <5 kg | 5 - 7.9 kg | 8 - 10.9 kg | 11 - 15.9 kg | 16 - 29.9 kg | 30 kg + |
| In ml | 200 - 400 | 400 - 600 | 600 - 800 | 800 - 1,200 | 1,200 - 2,200 | 2,200 - 4,000 |
| In local measure | | | | | | |

* Use the patient's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the patient's weight (in grams) times 0.075.

- If the child wants more ORS than shown, give more.
- Encourage the mother to continue breast-feeding.
- For infants under six months who are not breast-fed, also give 100-200 ml clean water during this period.

Observe the child carefully and help the mother give ORS solution.

- Show her how much solution to give the child.
- Show her how to give it - a teaspoonful every 1-2 minutes for a child under 2 years, frequent sips from a cup for an older child.
- Check from time to time to see if there are problems.
- If the child vomits, wait 10 minutes and then continue giving ORS, but more slowly, for example, a spoonful every 2-3 minutes.
- If the child's eyelids become puffy, stop the ORS and give plain water or breast milk. Give ORS according to Plan A when the puffiness is gone.

After four hours, reassess the child using the assessment chart, then select Plan A, B or C to continue treatment.

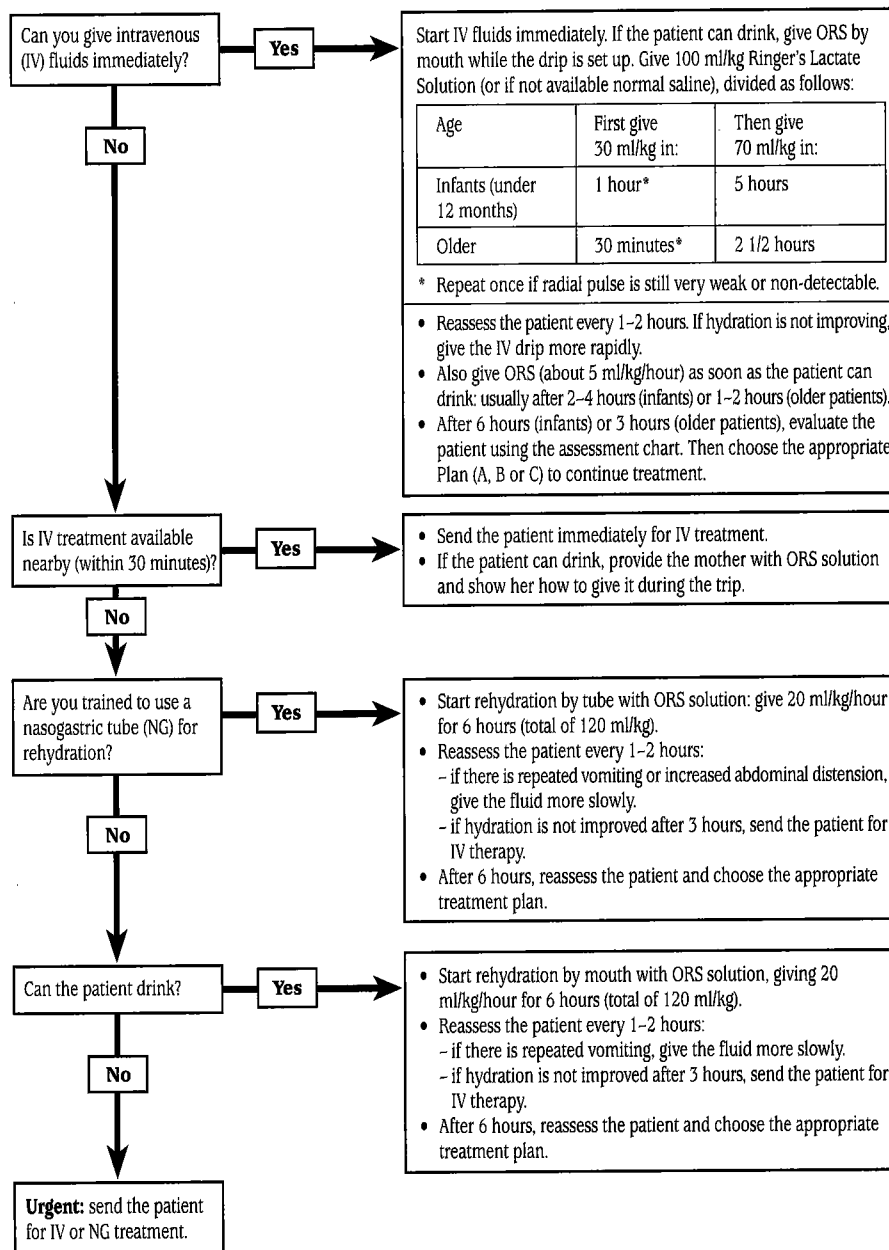
- If there are no signs of dehydration, shift to Plan A. When dehydration has been corrected, the child usually passes urine and may also be tired and fall asleep.
- If signs indicating some dehydration are still present, repeat Plan B, but start to offer food, milk and juice as described in Plan A.
- If signs indicating severe dehydration have appeared, shift to Plan C.

If the mother must leave before completing Treatment Plan B:

- Show her how much ORS to give to finish the 4-hour treatment at home;
- Give her enough ORS packets to complete rehydration, and for 2 more days as shown in Plan A;
- Show her how to prepare ORS solution;
- Explain to her the three rules in Plan A for treating her child at home:
 - to give ORS or other fluids until diarrhoea stops;
 - to feed the child;
 - bring the child back to the health worker, if necessary.

Annex 2d: Treatment Plan C to treat severe dehydration quickly

Follow the arrows. If the answer is “yes” go across. If “no” go down.



NB: If possible, observe the patient at least six hours after rehydration to be sure the mother can maintain hydration giving ORS solution by mouth. If the patient is above two years and there is cholera in your area, give an appropriate oral antibiotic after the patient is alert.

Use of drugs for children with diarrhoea

- ANTIBIOTICS should ONLY be used for dysentery and for suspected cholera cases with severe dehydration. Otherwise they are ineffective and should NOT be given.
- ANTIPARASITIC drugs should ONLY be used for:
 - Amoebiasis, after antibiotic treatment of bloody diarrhoea for **shigella** has failed or trophozoites of **E. Histolytica** containing red blood cells are seen in the faeces.
 - **Giardiasis**, when diarrhoea has lasted at least 14 days **and** cysts or trophozoites of Giardia are seen in faeces or small bowel fluid.
- ANTIDIARRHOEAL DRUGS and ANTIEMETICS should NEVER be used. None has proven value and some are dangerous.

Annex 3

Management of the child with cough or difficult breathing

Assess the child

Ask

- How old is the child?
- Is the child coughing? For how long?
- Is the child able to drink (for children age 2 months up to 5 years)?
- Has the young infant stopped feeding well (for children less than 2 months)?
- Has the child had fever? For how long?
- Has the child had convulsions?

Look and listen (the child must be calm)

- Count the breaths in one minute.
- Look for chest indrawing.
- Look and listen for stridor.
- Look and listen for wheeze. Is it recurrent?
- See if the child is abnormally sleepy, or difficult to wake.
- Feel for fever, or low body temperature (or measure temperature).
- Look for severe undernutrition.

Decide how to treat the child

The child aged less than two months: *see Annex 3a*

The child aged two months up to five years:

- who is not wheezing *see Annex 3b*
- who is wheezing *refer*

Treatment instructions *see Annex 3c*

- give an antibiotic
- advise mother to give home care
- treatment of fever.

Annex 3a: Child less than two months old

| | | | |
|---------------------|--|--|--|
| Signs: | No fast breathing (LESS than 60 a minute) and No severe chest indrawing | Fast breathing (60 per minute or MORE) or Severe chest indrawing | Not able to drink Convulsions Abnormally sleepy or difficult to wake Stridor in calm child Wheezing or Fever or low body temperature |
| Classify as: | No pneumonia – cough or cold | Severe pneumonia | Very severe disease |
| Treatment: | <ul style="list-style-type: none"> • Advise mother to give following homecare: <ul style="list-style-type: none"> – keep infant warm – breast-feed frequently – clear nose if it interferes with feeding • Advise mother to return quickly if: <ul style="list-style-type: none"> – illness worsens – breathing is difficult – breathing becomes fast – feeding becomes a problem | <ul style="list-style-type: none"> • Refer URGENTLY to hospital • Give first dose of an antibiotic • Keep infant warm <p>(If referral is not feasible, treat with an antibiotic and follow closely)</p> | <ul style="list-style-type: none"> • Refer URGENTLY to hospital • Give first dose of an antibiotic • Keep infant warm <p>(If referral is not feasible, treat with an antibiotic and follow closely)</p> |

Annex 3b: Child two months to five years old

| | | | | |
|---------------------|---|---|---|---|
| Signs: | <ul style="list-style-type: none"> No chest indrawing and No fast breathing (less than 50 per minute if child 2-12 months of age or 40 per minute if child 1-5 years) | <ul style="list-style-type: none"> No chest indrawing and Fast breathing (50 per minute or more if child 2-12 months of age or 40 per minute if child 1-5 years) | <ul style="list-style-type: none"> Chest indrawing | <ul style="list-style-type: none"> Not able to drink Convulsions Abnormally sleepy or difficult to wake Stridor in calm child or Severe under-nutrition |
| Classify as: | No pneumonia: cough or cold | Pneumonia | Severe pneumonia | Very severe disease |
| Treatment: | <ul style="list-style-type: none"> If coughing more than 30 days, refer for assessment Assess and treat ear problem or sore throat if present Assess and treat other problems Advise mother to give home care Treat fever if present | <ul style="list-style-type: none"> Advise mother to give home care Give an antibiotic Treat fever if present Advise mother to return in 2 days for reassessment, or if the child is getting worse | <ul style="list-style-type: none"> Refer urgently to hospital Give first dose of antibiotics Treat fever if present <p>(If referral is not possible, treat with an antibiotic and follow closely)</p> | <ul style="list-style-type: none"> Refer urgently to hospital Give first dose of antibiotics Treat fever if present If cerebral malaria is possible, give an antimalarial drug |



| Reassess in 2 days a child who is taking an antibiotic for pneumonia: | | | |
|--|---|--|--|
| | Improving | The same | Worse |
| Signs: | <ul style="list-style-type: none"> Less fever Eating better Breathing slower | | <ul style="list-style-type: none"> Not able to drink Has chest indrawing Has other danger signs |
| Treatment: | <ul style="list-style-type: none"> Finish 5 days of antibiotics | <ul style="list-style-type: none"> Change antibiotic or Refer | <ul style="list-style-type: none"> Refer urgently to hospital |

Annex 3c: Treatment instructions

Give an antibiotic

- Give first dose of antibiotic in the clinic.
- Instruct mother on how to give the antibiotic for five days at home (or to return to clinic for daily procaine penicillin injection).

| Age | COTRIMOXAZOLE trimethoprim (TMP) + sulfamethoxazole (SMX) | | | AMOXICILLIN | | PROCAINE PENICILLIN |
|---------------------------------------|---|--|---|---------------------------------|----------------------------|---------------------------------|
| | 2 times daily for 5 days | | | 3 times daily for for 5 days | | 1 time daily for 5 days |
| Weight | Adult tablet single strength (80 mg TMP + 400 mg SMX) | Paediatric table (20 mg TMP + 100 mg SMX) | Syrup (40 mg TMP + 200 mg SMX) | Tablet 250 mg | Syrup 125 mg in 5 ml | Intra- muscular injection |
| Less than 2 months (< 6 kg)* | 1/4** | 1** | 2.5 ml** | 1/4 | 2.5 ml | 200,000 units |
| 2 months up to 12 months (6-9 kg) | 1/2 | 2 | 5.0 ml | 1/2 | 5.0 ml | 400,000 units |
| 12 months up to 5 years (10-19 kg) | 1 | 3 | 7.5 ml | 1 | 10 ml | 800,000 units |

* Give oral antibiotic for five days at home if referral is not feasible.

** If the child is less than one month old, give 1/2 paediatric tablet or 1.25 ml syrup twice daily. Avoid cotrimoxazole in infants less than one month of age who are premature or jaundiced. Syrups and paediatric tablets are mentioned here for completeness sake knowing that they are not available in the kit.

Advise mother to give home care (for child age 2 months up to 5 years)

| | | |
|---|---|--------------------------------------|
| <ul style="list-style-type: none"> • Feed the child <ul style="list-style-type: none"> - feed the child during illness - increase feeding during illness - clear the nose if it interferes with feeding • Increase fluids <ul style="list-style-type: none"> - offer the child extra to drink - increase breastfeeding - soothe the throat and relieve cough with a safe remedy • Most important: for the child classified as having no pneumonia, cough or cold, watch for the following signs and return quickly if they occur: <ul style="list-style-type: none"> - breathing becomes difficult - breathing becomes fast - child not able to drink - child becomes sicker | } | This child may have pneumonia |
|---|---|--------------------------------------|

Treat fever

| | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> • Fever is high (> 39°C) | <ul style="list-style-type: none"> • Fever is not high (38-39°C) | <p>In falciparum malarious area:</p> <ul style="list-style-type: none"> • any fever or • history of fever | <ul style="list-style-type: none"> • Fever for more than 5 days |
| <ul style="list-style-type: none"> • Give paracetamol | <ul style="list-style-type: none"> • Advise mother to give more fluids | <ul style="list-style-type: none"> • Give an antimalarial (or treat according to your national malaria programme recommendations) | <ul style="list-style-type: none"> • Refer for assessment |

| | | |
|--|---------------|---------------|
| <p>PARACETAMOL doses:</p> <ul style="list-style-type: none"> • every six hours | | |
| Age or Weight | 100 mg tablet | 500 mg tablet |
| 2 months up to 12 months (6-9 kg) | 1 | 1/4 |
| 12 months up to 3 years (10-14 kg) | 1 | 1/4 |
| 3 years up to 5 years (15-19 kg) | 1 1/2 | 1/2 |

Fever alone is not a reason to give an antibiotic, except in a young infant (age less than 2 months).

Give first dose of an antibiotic and refer urgently to hospital.

Annex 4

Sample data collection forms

Daily morbidity data

Location:

Clinic:

Date:

| | Children under 5 years old | Children 5 years and older, and adults | Total |
|--|-------------------------------|---|-------|
| Diarrhoea with blood | | | |
| Diarrhoea without blood | | | |
| Fever/suspected malaria | | | |
| Malnutrition | | | |
| Measles | | | |
| Meningitis | | | |
| Severe acute respiratory infections/pneumonia | | | |
| Sexually transmitted infections | | | |
| | | | |
| | | | |
| Others | | | |
| Totals | | | |

Number of cases referred to other services:

Other information:

Weekly mortality statistics

Location:

Total population:

| |
|--------------|
| Week: |
|--------------|

| Cause of death | Children under 5 years old | | Children 5 years and older, and adults | | Total | |
|------------------------------|----------------------------|--------|--|--------|-------|--------|
| | Male | Female | Male | Female | Male | Female |
| ARI ⁴⁷ /pneumonia | | | | | | |
| Diarrhoea | | | | | | |
| Diarrhoea with blood | | | | | | |
| Fever/suspected malaria | | | | | | |
| Malnutrition | | | | | | |
| Maternal deaths | | | | | | |
| Measles | | | | | | |
| Meningitis | | | | | | |
| | | | | | | |
| Others | | | | | | |
| Totals | | | | | | |

| |
|---------------------------|
| Other information: |
|---------------------------|

⁴⁷ ARI = Acute respiratory infection

Daily drug consumption form

Date:

Location:

| Item/drug | Quantities dispensed* | Total |
|---------------------------------|-----------------------|-------|
| 1. acetylsalicylic acid | | |
| 2. aluminium hydroxide | | |
| 3. chloroquine | | |
| 4. cotrimoxazole | | |
| 5. ferrous sulfate + folic acid | | |
| 6. gentian violet powder | | |
| 7. mebendazole | | |
| 8. ORS | | |
| 9. paracetamol | | |
| 10. tetracycline eye ointment | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |
| 17. | | |

* For example: 10 + 30 + 20...

Annex 5

Sample health card

| Health Card Carte de Santé | | | | | | | | | | | | Card No. Carte No. | | | |
|---|---|------------------------------|---|--|-----------------------------|-------------------|------------------|---|-----------------------------|--|--|---|--|--|--|
| | | | | | | | | | | | | Date of registration Date d'enregistrement | | | |
| | | | | | | | | | | | | Date of arrival at site Date d'arrivée sur le lieu | | | |
| Site Lieu | Section/House No. Section/Habitation No. | | | | | | | | | | | | | | |
| | Family name Nom de famille | | | Given names Prénoms | | | Sex Sexe | | M/F Nom d'usage habituel | | | | | | |
| Date of birth or age Date de naissance ou âge | | Or Ou | Years Ans | Sex Sexe | M/F Nom d'usage habituel | | | | | | | | | | |
| Mother's name Nom de la mère | | Father's name Nom du père | | Percentage weight/height Pourcentage poids/taille | | | | | | | | | | | |
| Height Taille | | CM | Weight Poids | KG | | | | | | | | | | | |
| Feeding programme Programme d'alimentation | | | | | | | | | | | | | | | |
| Immunization Immunsisation | | | | | | | | | | | | | | | |
| Measles Rougeole | | Date | 1 | 2 | BCG | Date | Others Autres | | | | | | | | |
| Polio | | Date | Date | DPT Polio DTC Polio | Date | 1 | 2 | 3 | | | | | | | |
| Pregnant Enceinte | | Yes/No Oui/Non | No. of pregnancies No. de grossesses | No. of children No. d'enfants | Lactating Allaitante | Yes/No Oui/Non | | | | | | | | | |
| Tetanus Tétanos | | Date | 1 | 2 | 3 | 4 | 5 | | | | | | | | |
| Feeding programme Programme d'alimentation | | | | | | | | | | | | | | | |
| General (Family circumstances, living conditions, etc.) Générales (Circonstances familiales, condition de vie, etc.) | | | | | | | | | | | | | | | |
| Health (Brief history, present condition) Médicales (Résumé de l'état actuel) | | | | | | | | | | | | | | | |
| CHILDREN ENFANTS | | | | | | | | | | | | | | | |
| WOMEN FEMMES | | | | | | | | | | | | | | | |
| COMMENTS OBSERVATIONS | | | | | | | | | | | | | | | |

| DATE | CONDITION (Signs/symptoms/ diagnosis) ETAT (Signes/symptômes/ diagnostic) | TREATMENT (Medication/dose time) TRAITEMENT (Médication/durée de la dose) | COURSES (Medication due/given) APPLICATION (Médication requise/ effectuée) | OBSERVATIONS (Change in condition) NAME OF HEALTH WORKER OBSERVATIONS (Changement d'état) NOM DE L'AGENT DE SANTE |
|------|--|---|--|--|
| | | | | |
| | | | | |

Annex 6

Guidelines for suppliers

Specifications for drugs and materials

Drugs, supplies and equipment in the kit should comply with specifications and advice given in *Guidelines for drug donations*. Geneva: World Health Organization; 1996 (WHO/DAP/96.2) and in *Emergency relief items, compendium of basic specifications*. vol.1.2. New York: UNDP/IAPSO; 1996.

Packaging

1. Each package of drugs should contain a leaflet (insert) giving directions for use, warnings and precautions. However, such leaflets should be considered an essential supplement to labelling and not an alternative.
2. The tablets or capsules should be packed in sealed waterproof containers with replaceable lids, protecting the contents from light and humidity.
3. Liquids should be packed in unbreakable leak-proof bottles or containers.
4. Containers for all pharmaceutical preparations must conform to the latest edition of internationally recognized pharmacopoeial standards.
5. Ampoules must either have break-off necks, or sufficient files must be provided.
6. Each basic unit should be packed in one carton. The supplementary unit must be packed in cartons of a maximum weight of 50 kg. The cartons should preferably have two handles attached. Drugs, renewable supplies, infusions and equipment should all be packed in separate cartons, with corresponding labels.
7. Each carton must be marked with a green label (the international colour code for medical supplies in emergency situations). The word "BASIC" must be printed on each green label for the basic unit.

Packing list

Each consignment must be accompanied by a list of contents, stating the number of cartons, and the type and quantity of drugs and other supplies in each carton.

Information slips

Each basic unit carton and a number of the supplementary unit cartons should contain an information slip in four languages (English, French, Spanish and Russian) which reads as follows:

English

“NEHK98 is primarily intended for displaced populations without medical facilities; it may also be used for initial supply of primary health care facilities where the normal system of provision has broken down. It is **not** intended as a re-supply kit and, if used as such, may result in the accumulation of items and drugs which are not needed.

It is recognized that some of the supplies and drugs contained in the kit may not be appropriate for all cultures and countries. This is inevitable as it is a standardized emergency kit, designed for worldwide use, which is prepacked and kept ready for immediate dispatch.

The kit is not designed for immunization programmes, cholera, meningitis or specific epidemics such as those caused by Ebola virus.”

French

La nouvelle trousse sanitaire d'urgence 1998 est principalement destinée aux populations déplacées n'ayant pas accès à des soins médicaux. Elle peut également être utilisée pour fournir des soins de santé primaires, partout où le système habituel s'est effondré. Elle ne doit **en aucun cas** servir de réapprovisionnement car cela pourrait entraîner une accumulation inutile de matériel et de médicaments.

Dans la mesure où cette trousse est standardisée, destinée à être utilisée dans le monde entier et préemballée afin d'être distribuée immédiatement en cas de nécessité, il est inévitable qu'une partie du matériel et des médicaments qu'elle contient ne conviennent pas à tous les pays et à toutes les cultures.

Cette trousse n'est ni conçue pour les programmes de vaccination (choléra, méningite), ni pour des épidémies spécifiques comme celles dues au virus Ebola.

Spanish

«El nuevo botiquín médico de emergencia está destinado principalmente a las poblaciones desplazadas carentes de servicios médicos; podrá utilizarse también para la prestación inicial de servicios de atención primaria de salud donde el sistema normal de prestación esté paralizado. **No** tiene por objeto reabastecer el botiquín, pues si se utiliza con este fin ello puede dar lugar a que se acumulen artículos y medicamentos innecesarios.

Se reconoce que algunos de los suministros y medicamentos contenidos en el botiquín pueden no ser apropiados en todos los contextos culturales y países. Esto es inevitable, ya que se trata de un botiquín estándar de emergencia destinado para su uso en todo el mundo, preempaquetado y listo para su envío inmediato.

El botiquín no está destinado a los programas de inmunización ni a combatir el cólera, la meningitis o epidemias particulares como la provocada por el virus de Ébola.»

Russian

*АОНП98¹ предназначается для перемещенных лиц, не имеющих доступа к службам медико-санитарной помощи; она может также использоваться для первичных поставок необходимых лекарственных средств службам первичной медико-санитарной помощи, при нарушениях ритма в работе служб, обеспечивающих поставку им медицинских изделий и препаратов. Аптечка не рассчитана на пополнение имеющихся в ней запасов, ибо это может привести к ненужному накоплению лекарств и материалов, в которых нет необходимости.

Укомплектование аптечки лекарственными средствами и другими изделиями медицинского назначения может не соответствовать запросам всех стран и представителей различных культур. Это представляется неизбежным, поскольку аптечка представляет собой стандартизированный набор, подготовленный и сохраняемый для немедленной отправки в любую точку Земного шара.

Данная аптечка не предназначена для программ иммунизации, борьбы с холерой, менингитом или особыми эпидемиями, как, например, те, которые вызываются вирусом Эбола.*

¹ Примечание редактора. АОНП98 - аптечка для оказания неотложной помощи.

Annex 7

Other kits for emergency situations

The following additional kits covering immunization, reproductive health and nutrition may be provided after assessment of needs. Please see Annex 11 for the addresses of Médecins sans Frontières (MSF), OXFAM and the United Nations Population Fund (UNFPA).

Immunization

Immunization kit for 10,000 immunizations using 5 teams

The kit may be used for epidemic control or prevention of measles, meningitis and yellow fever. It is composed of cold chain, logistic and medical material divided into 7 modules including a generator, refrigeration, cold chain transport and medical equipment, logistics and registration material, and renewable medical items. **Vaccines must be ordered separately.**

MSF code: KMEDKIMM3

Nutritional support—feeding kits

OXFAM and MSF have developed kits for nutritional support. All the kits are packed by OXFAM and should be ordered through them. For organizational reasons, the kits have different OXFAM and MSF codes but have identical contents.

Survey kits

This kit contains equipment for measuring weight and height of children to assess nutritional status and materials needed for nutritional surveys by two teams.

OXFAM anthropometric kit, kit 1/2

MSF Kit anthropometric nutritional survey code: KMEDMNUT40

Registration kits

These contain material needed for registering children and record keeping for feeding programmes.

OXFAM registration, kit 2A/2 – for supplementary feeding (wet)

MSF registration, 250 moderate malnourished children/3 months

code: KMEDMNUT61

OXFAM registration, kit 3A/2 – for supplementary feeding (dry)

MSF registration, 500 dry feeding/3 months, code: KMEDMNUT71

OXFAM registration, kit 4A/2 for therapeutic feeding
MSF registration, 100 severely malnourished children/3 months
code: KMEDMNUT51

Supplementary feeding (wet) kit

Designed for 250 people, moderately malnourished children or other vulnerable groups and includes feeding and cooking equipment. Recent guidelines discourage the use of wet supplementary feeding programmes but do recommend they are only implemented when populations have limited access to fuel and water, where security conditions place people at risk when taking rations home or for groups who are in need of additional food but are unable to cook for themselves.

MSF wet feeding equipment 250 moderately malnourished individuals
code: KMEDMNUT62
OXFAM kit 2/2

Supplementary feeding (dry) kit

Designed for 500 people, moderately malnourished children or other vulnerable groups and includes equipment for mixing and distributing food. It is not intended for general food distribution of an entire population in need of food aid.

MSF dry feeding equipment 500 moderately malnourished children
code: KMEDMNUT72
OXFAM kit 3/2

Therapeutic feeding kit

Designed for therapeutic feeding of 100 severely malnourished children. The kit should only be used by trained staff who are able to recognize and respond to the main health problems associated with severe malnutrition. There should be access to medical care as the kit contains no drugs.

MSF therapeutic feeding equipment 100 severely malnourished children
code: KMEDMNUT52
OXFAM kit 4/2

Reproductive health kits for emergencies

The following 13 subkits are available through UNFPA and follow the numbering below.

Subkits designed for 10,000 people for 3 months

0-(A) Training and administration

Administration equipment for training health workers and health personnel

1. ***Condom***
120 gross (17,280) condoms with safe sex leaflets
2. ***Clean delivery***
200 individual packets containing material and pictorial instruction sheet for self delivery plus material for traditional birth attendants
3. ***Post rape/emergency contraception***
Emergency contraceptive tablets in packs of 4 (100 packs) plus erythromycin and cefixime with explanatory leaflets on emergency contraception
4. ***Oral and injectable contraception***
Designed to provide oral or injectable contraception to former users
5. ***Sexually transmitted disease***
Designed to provide antibiotics and condoms using the syndromic approach for the major sexually transmitted diseases

Subkits designed for 30,000 people for 3 months

6. ***Delivery***
For trained personnel, midwives, nurses with midwifery skills and medical doctors to perform normal deliveries, repair episiotomies and perineal tears under local anaesthetic and stabilize dangerous situations before transfer to a referral unit, (eclampsia and haemorrhage)
7. ***Intra-uterine device***
Equipment and material for trained personnel to place IUDs either as emergency contraception or as non-emergency contraception at the request of women and to remove IUDs (antibiotics included)
8. ***Complications of abortion***
Equipment and material to perform uterine evacuation and if necessary give antibiotics
9. ***Vaginal examination, vaginal/cervical tears***
Equipment to allow vaginal examination and suturing of cervical and vaginal tears
10. ***Vacuum extraction***
Provides a Bird vacuum extractor to assist in vaginal delivery by using vacuum extraction method to deliver the newborn

Subkits designed for referral level: surgical/obstetric, 150,000 people for 3 months

11. Referral level (part A) Surgical/obstetric reusable equipment

Referral level (part B) Drugs and disposable equipment

Equipment materials and drugs provide for caesarian sections, resuscitation of mothers and babies, treatment of sexually transmitted infections, and complications of pregnancy and delivery

12. Transfusion

Material for grouping, cross-matching blood and HIV testing

Annex 8

Guidelines for Drug Donations⁴⁸**Selection of drugs**

- 1. All drug donations should be based on an expressed need and be relevant to the disease pattern in the recipient country. Drugs should not be sent without prior consent by the recipient.**

Justification and explanation

This provision stresses the point that it is the prime responsibility of the recipients to specify their needs. It is intended to prevent unsolicited donations, and donations which arrive unannounced and unwanted. It also empowers the recipients to refuse unwanted gifts.

Possible exceptions

In acute emergencies the need for prior consent by the recipient may be waived, provided the drugs are amongst those from the WHO Model List of Essential Drugs⁴⁹ that are included in the UN list of emergency relief items recommended for use in acute emergencies.⁵⁰

- 2. All donated drugs or their generic equivalents should be approved for use in the recipient country and appear on the national list of essential drugs, or, if a national list is not available, on the WHO Model List of Essential Drugs, unless specifically requested otherwise by the recipient.**

Justification and explanation

This provision is intended to ensure that drug donations comply with national drug policies and essential drugs programmes. It aims at maximizing the positive impact of the donation, and prevents the donation of drugs which are unnecessary and/or unknown in the recipient country.

Possible exceptions

An exception can be made for drugs needed in sudden outbreaks of uncommon or newly emerging diseases, since such drugs may not be approved for use in the recipient country.

48 Reprinted from: *Guidelines for drug donations*. Geneva: World Health Organization; 1996. WHO/DAP/96.2.

49 Included in: *The Use of Essential Drugs*. Geneva: World Health Organization; 1997. Technical Report Series no. 867.

50 *Emergency relief items. Compendium of basic specifications, vol. 2: Medical supplies, equipment and selected essential drugs*. New York: United Nations Development Programme; 1996.

- 3. The presentation, strength and formulation of donated drugs should, as much as possible, be similar to those commonly used in the recipient country.**

Justification and explanation

Most staff working at different health care levels in the recipient country have been trained to use a certain formulation and dosage schedule and cannot constantly change their treatment practices. Moreover, they often have insufficient training in performing the necessary dosage calculations required for such changes.

Quality assurance and shelf-life

- 4. All donated drugs should be obtained from a reliable source and comply with quality standards in both donor and recipient country. The WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce⁵¹ should be used.**

Justification and explanation

This provision prevents double standards: drugs of unacceptable quality in the donor country should not be donated to other countries. Donated drugs should be authorized for sale in the country of origin, and manufactured in accordance with international standards of Good Manufacturing Practice (GMP).

Possible exceptions

In acute emergencies the use of the WHO Certification Scheme may not be practical. However, if it is not used, a justification should be given by the donor. When donors provide funds to purchase drugs from local producers, those which comply with national standards should not be excluded on the sole grounds that they do not meet quality standards of the donor country.

- 5. No drugs should be donated that have been issued to patients and then returned to a pharmacy or elsewhere, or were given to health professionals as free samples.**

Justification and explanation

Patients return unused drugs to a pharmacy to ensure their safe disposal; the same applies to drug samples that have been received by health workers. In most countries it is not allowed to issue such drugs to other patients, because their quality cannot be guaranteed. For this reason returned drugs should not be donated either. In addition to quality issues, returned drugs are very difficult to manage at the receiving end because of broken packages and small quantities involved.

⁵¹ Included in: *WHO Expert Committee on specifications for pharmaceutical preparations*. Geneva: World Health Organization; 1996. Annex 10. Technical Report Series no. 863.

6. After arrival in the recipient country all donated drugs should have a remaining shelf-life of at least one year.

Justification and explanation

In many recipient countries, and especially under emergency situations, there are logistical problems. Very often the regular drug distribution system has limited possibilities for immediate distribution. Regular distribution through different storage levels (e.g. central store, provincial store, district hospital) may take six to nine months. This provision especially prevents the donation of drugs just before their expiry as in most cases such drugs would only reach the patient after expiry.

Possible exceptions

An exception should be made for drugs with a total shelf-life of less than two years, in which case at least one-third of the shelf-life should remain. An exception can also be made for direct donations to specific health facilities, provided the responsible professional at the receiving end is aware of the shelf-life and the remaining shelf-life allows for proper administration prior to expiration. In all cases it is important that the date of arrival be communicated to the recipient well in advance.

Presentation, packing and labelling

7. All drugs should be labelled in a language that is easily understood by health professionals in the recipient country; the label on each individual container should at least contain the International Nonproprietary Name (INN, or generic name), batch number, dosage form, strength, name of manufacturer, quantity in the container, storage conditions and expiry date.

Justification and explanation

All donated drugs, including those under brand name, should be labelled also with their INN or the official generic name. Most training programmes are based on the use of generic names. Receiving drugs under different and often unknown brand names and without the INN is confusing for health workers and can even be dangerous for patients. In case of injections, the route of administration should be indicated.

8. As much as possible, donated drugs should be presented in larger quantity units and hospital packs.

Justification and explanation

Large quantity packs are cheaper, less bulky to transport and conform better with public sector supply systems in most developing countries. This provision also prevents the donation of drugs in sample packages, which are impractical to manage. In precarious situations, the

donation of paediatric syrups and mixtures may be inappropriate because of logistical problems and their potential misuse.

- 9. All drug donations should be packed in accordance with international shipping regulations, and be accompanied by a detailed packing list which specifies the contents of each numbered carton by INN, dosage form, quantity, batch number, expiry date, volume, weight and any special storage conditions. The weight per carton should not exceed 50 kilograms. Drugs should not be mixed with other supplies in the same carton.**

Justification and explanation

This provision is intended to facilitate the administration, storage and distribution of donations in emergency situations, as the identification and management of unmarked boxes with mixed drugs is very time and labour intensive. This provision specifically discourages donations of small quantities of mixed drugs. The maximum weight of 50 kg ensures that each carton can be handled without special equipment.

Information and management

- 10. Recipients should be informed of all drug donations that are being considered, prepared or actually underway.**

Justification and explanation

Many drug donations arrive unannounced. Detailed advance information on all drug donations is essential to enable the recipient to plan for the receipt of the donation and to coordinate the donation with other sources of supply. The information should at least include: the type and quantities of donated drugs including their International Nonproprietary Name (INN or generic name), strength, dosage form, manufacturer and expiry date; reference to earlier correspondence (for example, the letter of consent by the recipient); the expected date of arrival and port of entry; and the identity and contact address of the donor.

- 11. In the recipient country the declared value of a drug donation should be based upon the wholesale price of its generic equivalent in the recipient country, or, if such information is not available, on the wholesale world-market price for its generic equivalent.**

Justification and explanation

This provision is needed in the recipient country to prevent drug donations being priced according to the retail price of the product in the donor country, which may lead to elevated overhead cost for import tax, port clearance, and handling in the recipient country. It may also result in a corresponding decrease in the public sector drug budget in the recipient country.

Possible exception

In case of patented drugs (for which there is no generic equivalent) the wholesale price of the nearest therapeutic equivalent could be taken as a reference.

12. Costs of international and local transport, warehousing, port clearance and appropriate storage and handling should be paid by the donor agency, unless specifically agreed otherwise with the recipient in advance.

Justification and explanation

This provision prevents the recipient from being forced to spend effort and money on the clearance and transport of unannounced consignments of unwanted items, and also enables the recipient to review the list of donated items at an early stage.

Annex 9

Model Guidelines for the International Provision of Controlled Medicines for Emergency Medical Care⁵²

Introduction

A sudden rise in the need for medical care in emergency situations following natural or man-made disasters creates an acute shortage of medical supplies. Several international organizations and nongovernmental organizations (NGOs) are actively involved in the provision of humanitarian assistance by delivery of medical supplies in emergency situations. However, they are often faced with serious difficulties in providing several essential medicines containing narcotic drugs or psychotropic substances partly because of the regulatory requirements concerning their importation and exportation. The lack of these medicines results in additional human suffering by depriving those in need of adequate pain relief and sedation.

In order to improve the provision of medical care for disaster-stricken peoples, there is an urgent need to work out a practical solution to this problem.

Drugs included in the kit which come under international control measures are morphine, diazepam and phenobarbital. Though not included in the NEHK98 the previously recommended analgesic pentazocine is increasingly coming under international control and ketamine may be nationally controlled.

Cause of the problem

Based on operational experiences, humanitarian aid agencies perceive the problem as follows:

The international transportation of humanitarian supplies containing narcotic drugs and psychotropic substances is regarded by the control authorities as "exportation" requiring prior import authorizations from the authorities of the receiving country. As such, the import/export authorization system makes the quick international transportation of controlled drugs to sites of emergencies virtually impossible. In addition, the rigorous application of the estimate system can further complicate the procedure. While the International Narcotics Control Board

⁵² Reprint of: *Model guidelines for the international provision of controlled medicines for emergency medical care*. Geneva: World Health Organization; 1996. WHO/PSA/96.17.

(INCB) has advised control authorities that emergency humanitarian deliveries are considered as being consumed in the exporting country and included as such in the estimate of the exporting country, in reality, authorities had often followed the procedure for normal import/export transactions. This procedure often takes too long to meet the acute need for relief in some emergency situations, particularly when the control authorities in the receiving country are rendered dysfunctional, or are not in a position to issue import authorizations for the inhabitants in the disaster-stricken area of the country.

Consequences

As a consequence, all humanitarian aid agencies have abandoned the provision of narcotic drugs in their emergency medical supplies. Instead, pentazocine or buprenorphine (in Schedule III of the Convention on Psychotropic Substances, 1971) has been provided as an alternative for narcotic analgesics. Even this has become increasingly difficult, as more and more governments have introduced the export/import authorization and the "assessment" systems for Schedule III and IV psychotropic substances in response to the resolution adopted by the Economic and Social Council (ECOSOC). The same applies to diazepam and phenobarbital in Schedule IV of the 1971 Convention.

Furthermore, difficulty has been encountered even with ephedrine, ergometrine, ketamine, tramadol, thiopental, and chlorpromazine as some national control authorities apply similar export/import control systems to these medicines.

Search for a solution

WHO brought this issue to the attention of the INCB in an effort to find a practical solution. The INCB, in its report for 1994, recommended that control obligations could be limited to the authorities of exporting countries in emergency situations. This principle was endorsed at the 38th session of the UN Commission on Narcotic Drugs in 1995, and was further reinforced by its resolution entitled "Timely provision of controlled drugs for emergency care" adopted at the 39th session in 1996. This and a similar resolution adopted by the 49th session of the World Health Assembly request WHO to prepare model guidelines to assist national authorities with simplified regulatory procedures for this purpose, in consultation with the relevant UN bodies and interested governments.

These model guidelines are prepared in response to the above resolutions. In essence, the procedures proposed would allow certain suppliers to make international shipments of controlled medicines at the request of recognized agencies providing humanitarian assistance without prior export/import authorizations in emergency situations, following defined procedures acceptable to the control authorities and the INCB.

Definitions

The definitions listed below are used in this document.

Emergency

Any acute situation (e.g. earthquakes, floods, hurricanes, epidemics, conflicts, displacement of populations) in which the health conditions of a group of individuals are seriously threatened unless immediate and appropriate action is taken, and which demands an extraordinary response and exceptional measures.

Availability of control authorities

Control authorities are considered unavailable when an emergency occurs which results in a disruption of the function of such authorities to issue import authorizations.

When an emergency occurs in areas outside the control of the government, a solution should be found, on a case by case basis, through discussions with the control authorities of the exporting countries and the INCB.

Control authorities

Control authorities mean the competent national authorities designated by their governments in accordance with the Single Convention on Narcotic Drugs, 1961, and the Convention on Psychotropic Substances, 1971 (ref. United Nations publication "Competent national authorities under the international drug control treaties", available from the United Nations).

Operator

International, governmental and/or nongovernmental organizations engaged in the provision of humanitarian assistance in health matters recognized by the control authorities of exporting countries (e.g. UNICEF, UNHCR, WHO, ICRC (International Committee of the Red Cross), IFRC (International Federation of Red Cross and Red Crescent Societies), MSF (Médecins sans Frontières), national aid agencies and bona fide NGOs).

Supplier

Supplier of drugs for humanitarian assistance at the request of operators: a supplier may either be a separate entity or a section or department of an operator.

Purpose and principle

The model guidelines are aimed at enabling operators to supply, across international boundaries, essential narcotic drugs and psychotropic substances for emergency medical care.

To strike a delicate balance between the need for the timely provision of essential medicines, and the need to minimize the risk of their diversion, the procedures should be based on the principle of limiting control obligations to the control authorities of exporting countries.

Scope of application

These procedures would be applicable to the international provision of essential narcotic and psychotropic medicines by a limited number of operators in acute emergency situations, either with or without control authorities in the receiving country, as well as to less urgent humanitarian assistance by these operators in situations where the control authorities are not available in the receiving country.

Selection of suppliers

Suppliers should be limited to those recognized by the control authorities of exporting countries. They should at least have:

1. adequate experience as a supplier of good quality emergency medical supplies;
2. managerial capability to assess the appropriateness of requests for the simplified procedure from operators;
3. adequate level of stock and a responsible pharmacist;
4. sufficient knowledge about the relevant international conventions;
5. standard agreement with the control authorities of exporting countries (see section VI below).

Outline of standard agreement between suppliers⁵³ and control authorities of exporting countries

The standard agreement should at least cover:

- (1) *Criteria for acceptance of shipment requests from operators (a model form is attached at the end).*

The criteria for immediate acceptance of shipment requests from operators should at least specify the essential information to be furnished to the supplier concerning:

⁵³ When an operator is also a supplier, the agreement will be between the operator and the control authorities.

a. *credibility of the requesting operator*

A pre-determined list of credible operators ought to be prepared. A credible operator should (i) be an established organization; (ii) have adequate experience for international provision of humanitarian medical assistance; (iii) have responsible medical management (medical doctor(s) or pharmacist(s)); and (iv) appropriate logistic support.

b. *nature of the emergency and the urgency of the request*

A statement to the supplier on the nature of the emergency by the operator, or if appropriate, by a UN agency.

c. *availability of control authorities in the receiving country.*

d. *diversion prevention mechanism after delivery*

Indicate if the requesting operator itself is the user of the supplies. If not, the name and organization of the person responsible for receipt and internal distribution of the supplies should be indicated. As far as possible, the recipients in the receiving country should be identified.

(2) *Timing and mode of reporting to the control authorities and the INCB*

When control authorities are available in the receiving country, they should be notified as soon as possible by the control authorities of the exporting country and the operator of a consignment of the emergency delivery, while their import authorization may not have to be required under the circumstances of an emergency situation.

Suppliers should inform the control authorities of the exporting country of each emergency shipment being made in response to a request from an operator so that the control authorities can intervene if necessary.

Suppliers should submit to the control authorities of the exporting country an annual report on emergency deliveries and quantities of drugs involved as well as their destinations in duplicate, so that one copy can be forwarded to the INCB.

Suppliers, or operators through the suppliers, should inform the control authorities of the exporting countries, with copy to the INCB, of any problems encountered in the working of emergency deliveries.

(3) *Other relevant matters*

As appropriate, the agreement may include provisions on other relevant matters such as inspection and guidance by the control authorities. Although the quantities involved would be rather small, it may touch upon estimated/assessed requirements based on the principle that the drugs provided should be regarded as having been "consumed" in the exporting country.

Summary of the request procedure

(1) *Operator's role*

The operator should make a written request for emergency supplies of controlled substances to the supplier, using the attached model form. The operator is responsible for:

- information provided on the form;
- actual handling of controlled drugs at the receiving end or adequate delivery to the reliable recipient;
- reporting to the control authorities of the receiving country (whenever they are available) as soon as possible;
- reporting to the control authorities of the receiving country on unused quantities, if any, when the operator is the end-user or to arrange for the end-user to do so;
- reporting to the control authorities of the exporting country through the supplier, with copy to the INCB, any problems encountered in the working of emergency deliveries.

(2) *Supplier's role*

Before responding to the request from the operator, the supplier should be convinced that the nature of the emergency justifies the application of the simplified procedure without export/import authorizations. The supplier is also responsible for:

- submitting immediately a copy of the shipment request to the control authorities of the exporting country;
- submitting an annual report on emergency deliveries and quantities of drugs involved as well as their destinations, with copy to the INCB;
- reporting to the control authorities of the exporting country, with copy to the INCB, any problems encountered in the working of emergency deliveries.

(3) *Control authorities' role*

The control authorities of the exporting country should inform their counterpart in the receiving country (whenever they are available) of the emergency deliveries.

The control authorities of the receiving country have the right to refuse the importation of such deliveries. Emergency deliveries need not be included in the estimate of the receiving country, since they are regarded as having been consumed in the exporting country.

Model shipment request/notification form for emergency supplies of controlled substances

Operator:

Name: _____

Address: _____

Name of the responsible medical director/pharmacist: _____

Title: _____

Phone No. _____ Fax No. _____

Requests the supplier:⁵⁴

Name: _____

Address: _____

Responsible pharmacist: _____

Phone No. _____ Fax No. _____

For an emergency shipment⁵⁵ of the following medicine(s) containing controlled substances:

Name of product (in INN/generic name) and dosage form, amount of active ingredient per unit dose, number of dosage units in words and figures

Narcotic drugs as defined in the 1961 Convention (e.g. morphine, pethidine, fentanyl)

[e.g. Morphine injection 1 ml ampoule; morphine sulfate corresponding to 10 mg of morphine base per ml; two hundred (200) ampoules]

54 If the operator is exporting directly from its emergency stock, it should be considered as a supplier.

55 Emergency deliveries do not affect the estimate of the recipient country since they have already been accounted for in the estimate of the exporting country.

Psychotropic substances as defined in the 1971 Convention (e.g. buprenorphine, pentazocine, diazepam, phenobarbital)

Others (nationally controlled in the exporting country, if applicable)

To the following recipient (whichever applicable):

Country of final recipient: _____

Responsible person for receipt: _____

Name: _____

Organization/Agency: _____

Address: _____

Phone No. _____ Fax No. _____

For use by/delivery to:

Location: _____ Organization/Agency _____

Consignee (If different from above e.g. transit in a third country):

Name: _____ Organization/Agency _____

Address: _____

Phone No. _____ Fax No. _____

Nature of the emergency (Brief description of the emergency motivating the request):

Availability of, and action taken to contact the control authorities in the receiving country:

I certify that the above information is true and correct. My Organization will:

- Take responsibility for receipt, storage, delivery to the recipient/end-user, or use for emergency care (strike out what is not applicable) of the above controlled medicines;
- Report the importation of the above controlled medicines as soon as possible to the control authorities (if available) of the receiving country;
- Report the quantities of unused controlled medicines, if any, to the control authorities of the receiving country (if available), or arrange for the end-user to do so (strike out what is not applicable).

Title: _____ Date: _____

Location: _____

(Signature)

| |
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| Annex 10 |
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References

The books and documents referenced below may be obtained from the following addresses. Some are available free of charge.

WHO Publications, Distribution and Sales, 20 Avenue Appia, 1211 Geneva 27, Switzerland. Tel: 41 22 791 2476, fax: 41 22 791 4857, e-mail: publications@who.ch, World-Wide-Web site: <http://www.who.ch>

Kumarian Press, Inc., 14 Oakwood Ave., West Hartford, CT 06119-2127, USA. Tel: 1 860 233 5895, fax: 1 860 233 6072

Médecins sans Frontières: International Office: Médecins sans Frontières, 39 rue de la Tourelle, 1040 Brussels, Belgium. Tel: 32 2 2801881, fax: 32 2 2800173

Belgium: Médecins sans Frontières, Duprèstreet 94 – 1090 Brussels Jette. Tel: 32 2 474 7474, fax: 32 2 474 7575

France: Médecins sans Frontières, 8 rue Sabin – 75544 Paris Cedex 11. Tel: 33 1 40 212929, fax: 33 1 48 066868

Luxembourg: Médecins sans Frontières, 70 route de Luxembourg – 7240 Béréldange. Tel: 352 33 2515, fax: 352 33 5133

Netherlands: Artsen Zonder Grenzen, Max Euweplein 40 – Postbus 10014, 1001 EA Amsterdam. Tel: 31 20 5208700, fax: 31 20 6205170

Spain: Médicos Sin Fronteras, Nou de la Rambla 26 – 08001 Barcelona. Tel: 34 9 3 3046100, fax: 34 9 3 3046102

Switzerland: Médecins sans Frontières, 12 rue du Lac – Case postale 6090, 1211 Geneva 6. Tel: 41 22 849 8484, fax: 41 22 849 8488

UNFPA/Emergency Relief Operations, 9 Chemin des Anémones, 1219 Geneva, Switzerland. Tel: 41 22 979 9314, fax: 41 22 979 9049, e-mail: peirroti@itu.ch, World-Wide-Web site: <http://www.unfpa.org/index.html>

Dedicated reproductive health kits have been designed by the United Nations Population Fund. Further information on their availability, content and cost may be obtained from the above address.

UNHCR Headquarters, Case Postale 2500, 1211 Geneva Dépot 2, Switzerland. Tel: 41 22 739 8111, fax: 41 22 739 7377

Drugs and drug management

- WHO. *Drugs used in parasitic diseases*. 2nd. ed. WHO Model Prescribing Information. Geneva: World Health Organization; 1995. ISBN 92 4 140104 4
- WHO. *Drugs used in sexually transmitted diseases and HIV infection*. WHO Model Prescribing Information. Geneva: World Health Organization; 1995. ISBN 92 4 140105 2
- WHO. *Drugs used in skin diseases*. WHO Model Prescribing Information. Geneva: World Health Organization; 1997. ISBN 92 4 140106 0
- MSH/WHO/DAP. *Managing drug supply*, 2nd ed. Hartford, CT: Kumarian Press; 1997
- AHRTAG. *How to manage a health centre store*. London: Appropriate Health Resources and Technologies Action Group; 1994. ISBN 0 907320 25 2
- MSF. *Clinical guidelines, diagnostic and treatment manual*. Paris: Médecins Sans Frontières; 1993. ISBN 2 218 03480 0
- MSF. *Essential drugs*. Paris: Médecins Sans Frontières; 1993. ISBN 2 218 02651 1

Gastrointestinal disease

- WHO. *Guidelines for cholera control*. Geneva: World Health Organization; 1993. ISBN 92 4 154449X
- WHO. *Guidelines for the control of epidemics due to shigella dysenteriae type 1*. Geneva: World Health Organization; 1995. WHO/CDR/95.4
- WHO. *Management of bloody diarrhoea in young children*. Geneva: World Health Organization; 1994. WHO/CDD/94.49
- WHO. *Management and prevention of diarrhoea: practical guidelines*, 3rd ed. Geneva: World Health Organization; 1993. ISBN 92 4 154454 6
- WHO. *Management of the patient with cholera*. Geneva: World Health Organization; 1992. WHO/CDD/SER/91.15
- WHO. *Rational use of drugs in the management of acute diarrhoea in children*. Geneva: World Health Organization; 1990. ISBN 92 4 156 142 4

General public health

- WHO. *Control of communicable diseases in emergency situations: a field manual*. Geneva: World Health Organization (in preparation)
- MSF. *Refugee health: an approach to emergency situations*. London: Macmillan; 1997. ISBN 0 333 72210 8
- UNHCR. *Handbook for emergencies*. Geneva: Office of the United Nations High Commissioner for Refugees; 1982
- UNHCR. *Vector and pest control in refugee situations*. Geneva: Office of the United Nations High Commissioner for Refugees; 1995
- UNHCR. *Water manual for refugee situations*. Geneva: Office of the United Nations High Commissioner for Refugees; 1992

HIV and STDs

- UNAIDS. *Guidelines for HIV interventions in emergency settings*. Geneva: Joint United Nations Programme on HIV/AIDS; 1996. UNAIDS/96.1
- WHO. *Management of sexually transmitted diseases*. Geneva: World Health Organization; 1994. WHO/GPA/TEM/94.1
- WHO. *STD case management workbooks*. Geneva: World Health Organization; 1995. WHO/GPA/TCO/PMT 95.18 A–G

Immunization

- WHO. *Treating measles in children*. Geneva: World Health Organization; 1997. WHO/EPI/TRAM/97.02
- WHO & UNICEF. *WHO-UNICEF policy statement for mass immunization campaigns*. Geneva: World Health Organization; 1997. WHO/EPI/LHIS/97.04

Laboratory support

- WHO. *Health laboratory facilities in emergency and disaster situations*. Series 6. Alexandria: World Health Organization; 1994. ISBN 92 9021 182 2
- WHO. *Specimen collection and transport for microbiological investigation*. Series 8. Alexandria: World Health Organization; 1995. ISBN 92 9021 196 2

Malaria

- WHO. *Malaria control amongst refugees and displaced populations*. Geneva: World Health Organization; 1996. CTD/MAL/96.6
- WHO. *Management of uncomplicated malaria and the use of antimalarial drugs for the protection of travellers*. Geneva: World Health Organization; 1996. WHO/MAL/96.1075 (Rev. 1)
- WHO. *Management of severe and complicated malaria*. Geneva: World Health Organization; 1991 (reprint 1998). ISBN 92 4 154436 8

Materials

- UNDP. *Emergency relief items, compendium of basic specifications*, vol.2. Medical supplies and equipment, selected essential drugs, guidelines for drug donations. New York: United Nations Development Programme; 1996

Mental health

- WHO in collaboration with UNHCR. *Mental health of refugees*. Geneva: World Health Organization; 1996

Nutrition

- Famine-affected, refugee and displaced populations*, Recommendations for public health issues. Centers for Disease Control, Morbidity and Mortality Weekly Report (MMWR) 1992 July 24; 41(13)
- MSF. *Nutritional guidelines*. Paris: Médecins Sans Frontières; 1995
- WHO. *The management of nutrition in major emergencies* (in press)

Reproductive health

- WHO. *Care in normal birth: a practical guide*. Geneva: World Health Organization; 1996. WHO/FRH/MSM/96.24
- WHO. *Emergency contraception, a guide for service delivery*. Geneva: World Health Organization; 1997. WHO/FRH/FPP/98.19
- UNHCR. *Interagency field manual: reproductive health in refugee situations*. Geneva: Office of the United Nations High Commissioner for Refugees; 1995
- WHO. *Mother-baby package: implementing safe motherhood in countries*. Geneva: World Health Organization; 1996. WHO/FHE/MSM/94.11 (Rev. 1)
- UNHCR. *Sexual violence against refugees, guidelines for prevention and response*. Geneva: Office of the United Nations High Commissioner for Refugees; 1995

Respiratory tract infections

- WHO. *Acute respiratory infections in children: case management in small hospitals in developing countries*. Geneva: World Health Organization; 1992. WHO/ARI/90.5

Tuberculosis

- WHO. *TB/HIV a clinical manual 1996*. Geneva: World Health Organization; 1996. WHO/TB/96.200
- WHO. *Treatment of tuberculosis: guidelines for national programmes*. 2nd.ed. Geneva: World Health Organization; 1997. WHO/TB/97.220
- WHO. *Tuberculosis control in refugee situations: an interagency field manual*. Geneva: World Health Organization; 1997. WHO/TB/97.221

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| Annex II |
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Useful addresses

Christian Medical Commission, Churches' Action for Health, World Council of Churches, 150 rte. de Ferney, PO Box 2100, 1211 Geneva 2, Switzerland. Tel: 41 22 791 6111, fax: 41 22 791 0361, e-mail: koa@wcc-coe.org

International Committee of the Red Cross, 19, Avenue de la Paix, 1202 Geneva, Switzerland. Tel. 41. 22 734 60 01, telex: 41 4 226 CCR CH, fax: 41 22 733 20 57

International Dispensary Association, PO Box 37098, 1030 AB Amsterdam, Netherlands. Tel: 31 20 4033051, fax: 31 20 4031854, e-mail: ida_sale@euronet.nl

International Federation of Red Cross and Red Crescent Societies, 17 ch. des Crêts, Petit Saconnex, PO Box 372, 1211 Geneva, Switzerland. Tel: 41 22 730 4222, telex: 412 133 FRC CH, fax: 41 22 733 0395

International Office: Médecins sans Frontières, 39 rue de la Tourelle, 1040 Brussels, Belgium. Tel: 32 2 2801881, fax: 32 2 2800173

OXFAM, 274 Banbury Road, Oxford OX2 7DZ, United Kingdom. Tel: 44 1865 311 311, telex: 83610, fax: 44 1865 312 224

Pharmaceutical Programme, Community Initiatives Support Services International, PO Box 73860, Nairobi, Kenya. Tel: 254 2 445020, fax: 254 2 440306

United Nations Children's Fund, Supply Division, Freeport, DK-2100 Copenhagen Ø, Denmark. Tel: 45 35 37 35 37, fax: 45 35 26 94 21, e-mail: supply@unicef.dk

United Nations Development Programme, Interagency Procurement Services Office, Midtermolen 3, PO Box 2530, 2100 Copenhagen Ø, Denmark. Tel: 45 35 46 7000, telex: 27 368 iaps-dk, fax: 45 35 46 7001, e-mail: registry.iapso@undp.org

United Nations High Commissioner for Refugees, Case Postale 2500, 1211 Geneva 2 Dépôt, Switzerland. Tel: 41 22 739 8111, telex: 28741 HCR CH, fax: 41 22 739 7377

United Nations Population Fund, UNFPA/ERO, 9 Chemin des Anémones, 1219 Geneva, Switzerland. Tel: 41 22 979 9314, fax: 41 22 979 9049 e-mail: pierotti@itu.ch, World-Wide-Web site: <http://www.unfpa.org/index.html>, or UNFPA Procurement Office, New York, 220 E 42nd Street, New York, NY 10017, USA. Tel: 212 297 5392, fax: 212 297 5250, e-mail: saunders@unfpa.org

World Health Organization, 20 Avenue Appia, 1211 Geneva 27, Switzerland. Tel: 41 22 791 2111, fax: 41 791 0746

