

Essential Drugs

WHO Model List: revised in December 1995

Section 1: Anaesthetics

1.1 GENERAL ANAESTHETICS AND OXYGEN

ether, anaesthetic (2)	inhalation
halothane (2)	inhalation
ketamine (2)	injection, 50 mg (as hydrochloride)/ml in 10-ml vial
nitrous oxide (2)	inhalation
oxygen	inhalation (medicinal gas)
*thiopental (2)	powder for injection, 0.5 g, 1.0 g (sodium salt) in ampoule

1.2 LOCAL ANAESTHETICS

*bupivacaine (2, 9)	injection, 0.25%, 0.5% (hydrochloride) in vial injection for spinal anaesthesia, 0.5% (hydrochloride) in 4-ml ampoule to be mixed with 7.5% glucose solution
*lidocaine	injection, 1%, 2% (hydrochloride) in vial

injection, 1%, 2% (hydrochloride) + epinephrine 1:200 000 in vial
injection for spinal anaesthesia, 5% (hydrochloride) in 2-ml ampoule to be mixed with 7.5% glucose solution
topical forms, 2 – 4% (hydrochloride)
dental cartridge, 2% (hydrochloride) + epinephrine 1:80 000

1.3 PREOPERATIVE MEDICATION & SEDATION FOR SHORT-TERM PROCEDURES

atropine	injection, 1 mg (sulfate) in 1-ml ampoule
chloral hydrate	syrup, 200 mg/5 ml
*diazepam (1b)	injection, 5 mg/ml in 2-ml ampoule tablets, 5 mg
*morphine (1a)	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule
*promethazine	elixir or syrup, 5 mg (hydrochloride)/5 ml

Explanatory Notes

When the strength of a drug is specified in terms of a selected salt or ester, this is mentioned in brackets; when it refers to the active moiety, the name of the salt or ester in brackets is preceded by the word "as".

* Example of a therapeutic group. Various drugs can serve as alternatives.

Numbers, in parentheses, following the drug names indicate:

- (1) Drugs subject to international control under (a) the Single Convention on Narcotic Drugs (1961); (b) the Convention on Psychotropic Substances (1971); and (c) the Convention on Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988);
- (2) Specific expertise, diagnostic precision, individualization of dosage or special equipment required for proper use;
- (3) Greater potency or efficacy;

- (4) In renal insufficiency, contraindicated or dosage adjustments necessary;
- (5) To improve compliance;
- (6) Special pharmacokinetic properties;
- (7) Adverse effects diminish benefit/risk ratio;
- (8) Limited indications or narrow spectrum of activity;
- (9) For epidural anaesthesia;
- (10) Sustained release preparations are available. The fact of proper sustained release of the dosage form should be documented.

Letters in parentheses following the drug names indicate the reasons for the inclusion of *complementary drugs*:

- (A) When drugs in the main list cannot be made available;
- (B) When drugs in the main list are known to be ineffective or inappropriate for a given individual;
- (C) For use in rare disorders or in exceptional circumstances.

Section 2: Analgesics, Antipyretics, Nonsteroidal Anti-inflammatory Drugs and Drugs Used to Treat Gout

2.1 NON-OPIOIDS

acetylsalicylic acid	tablet, 100 – 500 mg suppository, 50 – 150 mg
allopurinol (4)	tablet, 100 mg
colchicine (7)	tablet, 500 µg
*ibuprofen	tablet, 200 mg, 400 mg
paracetamol	tablet, 100 – 500 mg suppository, 100 mg syrup, 125 mg/5 ml

2.2 OPIOID ANALGESICS

*codeine (1a)	tablet, 30 mg (phosphate)
*morphine (1a)	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule oral solution, 10 mg (hydrochloride or sulfate)/5 ml tablet, 10 mg (sulfate)

Complementary drug

*pethidine (A) (1a, 4)	injection, 50 mg (hydrochloride) in 1-ml ampoule tablet, 50 mg, 100 mg (hydrochloride)
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Section 3: Antiallergics and Drugs Used in Anaphylaxis

*chlorphenamine	tablet, 4 mg (hydrogen maleate) injection, 10 mg (hydrogen maleate) in 1-ml ampoule
*dexamethasone	tablet, 500 µg, 4 mg injection, 4 mg (as sodium phosphate) in 1-ml ampoule
epinephrine	injection, 1 mg (as hydrochloride or hydrogen tartrate) in 1-ml ampoule
hydrocortisone	powder for injection, 100 mg (as sodium succinate) in vial
*prednisolone	tablet, 5 mg

* Example of a therapeutic group. Various drugs can serve as alternatives.

Section 4: Antidotes and Other Substances Used in Poisonings

4.1 NON-SPECIFIC

*charcoal, activated	powder
ipecacuanha	syrup, containing 0.14% ipecacuanha alkaloids calculated as emetine

4.2 SPECIFIC

atropine	injection, 1 mg (sulfate) in 1-ml ampoule
deferoxamine	powder for injection, 500 mg (mesilate) in vial
dimercaprol (2)	injection in oil, 50 mg/ml in 2-ml ampoule
*methionine	tablet, 250 mg (racemate)
methylthionium chloride (methylene blue)	injection, 10 mg/ml in 10-ml ampoule
naloxone	injection, 400 µg (hydrochloride) in 1-ml ampoule
penicillamine (2)	capsule or tablet, 250 mg
potassium ferric hexacyanoferrate(II) 2H ₂ O (Prussian blue)	powder for oral administration
sodium calcium edetate (2)	injection, 200 mg/ml in 5-ml ampoule
sodium nitrite	injection, 30 mg/ml in 10-ml ampoule
sodium thiosulfate	injection, 250 mg/ml in 50-ml ampoule

Section 5: Anticonvulsants

carbamazepine (10)	scored tablet, 100 mg, 200 mg
*diazepam (1b)	injection, 5 mg/ml in 2-ml ampoule (intravenous or rectal)
ethosuximide	capsule, 250 mg syrup, 250 mg/5 ml
magnesium sulfate	500 mg/ml in 2-ml ampoule
phenobarbital (1b)	tablet, 15 – 100 mg elixir, 15 mg/5 ml
phenytoin	capsule or tablet, 25 mg, 50 mg, 100 mg (sodium salt) injection, 50 mg (sodium salt)/ml in 5-ml vial
valproic acid (7)	enteric coated tablet, 200 mg, 500 mg (sodium salt)
<i>Complementary drug</i>	
*clonazepam	scored tablets, 500 µg

Section 6: Anti-infective Drugs**6.1 ANTHELMINTHICS****6.1.1 INTESTINAL ANTHELMINTHICS**

albendazole	chewable tablet, 400 mg
levamisole (8)	tablet, 50 mg, 150 mg (as hydrochloride)
*mebendazole	chewable tablet, 100 mg, 500 mg
niclosamide	chewable tablet, 500 mg
praziquantel	tablet, 150 mg, 600 mg
pyrantel	chewable tablet, 250 mg (as embonate) oral suspension, 50 mg (as embonate)/ml

6.1.2 ANTIFILARIALS

diethylcarbamazine	tablet, 50 mg (dihydrogen citrate)
ivermectin	scored tablet, 6 mg
<i>Complementary drug</i>	
suramin sodium (B) (2, 7)	powder for injection, 1 g in vial

6.1.3 ANTISCHISTOSOMALS

metrifonate	tablet, 100 mg
oxamniquine	capsule, 250 mg syrup, 250 mg/5 ml
praziquantel	tablet, 600 mg

6.2 ANTIBACTERIALS**6.2.1 PENICILLINS**

*amoxicillin (4)	capsule or tablet, 250 mg, 500 mg (anhydrous) powder for oral suspension, 125 mg (anhydrous)/5 ml
ampicillin (4)	powder for injection, 500 mg (as sodium salt) in vial
benzathine benzylpenicillin	powder for injection, 1.44 g benzylpenicillin (= 2.4 million IU) in 5-ml vial
benzylpenicillin	powder for injection, 600 mg (= 1 million IU), 3 g (= 5 million IU) (as sodium or potassium salt) in vial
*cloxacillin	capsule, 500 mg (as sodium salt) powder for oral solution, 125 mg (as sodium salt)/5 ml

	powder for injection, 500 mg (as sodium salt) in vial
phenoxymethylpenicillin	tablet, 250 mg (as potassium salt) powder for oral suspension, 250 mg (as potassium salt)/5 ml
procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU)

6.2.2 OTHER ANTIBACTERIALS

*ciprofloxacin	tablet, 250 mg (as hydrochloride)
*chloramphenicol (7)	capsule, 250 mg oral suspension, 150 mg (as palmitate salt)/5 ml powder for injection, 1 g (as sodium succinate) in vial
*doxycycline (5, 6)	capsule or tablet, 100 mg (as hyclate)
*erythromycin	capsule or tablet, 250 mg (as stearate or ethyl succinate) powder for oral suspension, 125 mg (as stearate or ethyl succinate) powder for injection, 500 mg (as lactobionate) in vial
*gentamicin (2, 4, 7)	injection, 10 mg, 40 mg (as sulfate)/ml in 2-ml vial
*metronidazole	tablet, 200 – 500 mg injection, 500 mg in 100-ml vial suppository, 500 mg, 1 g oral suspension, 200 mg (as benzoate)/5 ml
nalidixic acid (8)	tablet, 250 mg, 500 mg
nitrofurantoin (4, 7 8)	tablet, 100 mg
spectinomycin (8)	powder for injection, 2 g (as hydrochloride) in vial
*sulfadimidine (4)	tablet, 500 mg oral suspension, 500 mg/5 ml injection, 1 g (sodium salt) in 3-ml ampoule
*sulfamethoxazole + trimethoprim (4)	tablet, 100 mg + 20 mg, 400 mg + 80 mg oral suspension, 200 mg + 40 mg/5 ml
trimethoprim (8)	tablet, 100 mg, 200 mg

* Example of a therapeutic group. Various drugs can serve as alternatives.

Complementary drugs

chloramphenicol oily suspension (C)	injection 0.5g (as sodium succinate)/ ml in 2-ml ampoule
clindamycin (B)	injection, 150 mg (as phosphate)/ml

Restricted indications

ceftriaxone	powder for injection, 250 mg (as sodium salt) in vial
ceftazidime	powder for injection, 250 mg (as pentahydrate) in vial
vancomycin	powder for injection 250 mg (as hydrochloride) in vial

6.2.3 ANTILEPROSY DRUGS

clofazimine	capsule, 50 mg, 100 mg
dapsone	tablet, 50 mg, 100 mg
rifampicin	capsule or tablet, 150 mg, 300 mg

6.2.4 ANTITUBERCULOSIS DRUGS

ethambutol (4)	tablet, 100 – 400 mg (hydrochloride)
isoniazid	tablet, 100 – 300 mg
pyrazinamide	tablet, 400 mg
rifampicin	capsule or tablet, 150 mg, 300 mg
rifampicin + isoniazid	tablet, 150 mg + 75 mg, 300 mg + 150 mg, 150 mg + 150 mg
streptomycin (4)	powder for injection, 1 g (as sulfate) in vial
rifampicin + isoniazid + pyrazinamide	tablet, 150 mg + 75 mg + 400 mg, 150 mg + 150 mg + 500 mg
isoniazid + ethambutol	tablet, 400 mg + 150 mg

Complementary drug

thioacetazone + isoniazid (A) (7)	tablet, 50 mg + 100 mg, 150 mg + 300 mg
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6.3 ANTIFUNGAL DRUGS

amphotericin B (4)	powder for injection, 50 mg in vial
griseofulvin (8)	capsule or tablet, 125 mg, 250 mg
*ketoconazole (2)	tablet, 200 mg oral suspension, 100 mg/5 ml
nystatin	tablet, 100 000, 500 000 IU lozenge 100 000 IU pessary, 100 000 IU

* Example of a therapeutic group. Various drugs can serve as alternatives.

¹ For use only with quinine.

Complementary drug

flucytosine (B) (4, 8)	capsule, 250 mg infusion, 2.5 g in 250 ml
potassium iodide (A)	saturated solution

6.4 ANTIPROTOZOAL DRUGS**6.4.1 ANTIAMOEBIIC AND ANTIGIARDIASIS DRUGS**

*diloxanide	tablet, 500 mg (furoate)
*metronidazole	tablet, 200 – 500 mg injection, 500 mg in 100-ml vial oral suspension, 200 mg (as benzoate)/5 ml

6.4.2 ANTILEISHMANIASIS DRUGS

*meglumine antimoniate	injection, 30%, equivalent to approx. 8.5% antimony, in 5-ml ampoule
pentamidine (5)	powder for injection, 200 mg (isetionate) in vial

Complementary drug

amphotericin B (4) (B)	powder for injection, 50 mg in vial
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6.4.3 ANTIMALARIAL DRUGS**(a) FOR CURATIVE TREATMENT**

*chloroquine	tablet, 100 mg, 150 mg (as phosphate or sulfate) syrup, 50 mg (as phosphate or sulfate)/5 ml injection, 40 mg (as hydrochloride phosphate or sulfate)/ml in 5-ml ampoule
primaquine	tablet, 7.5 mg, 15 mg (as diphosphate)
quinine	tablet, 300 mg (as bisulfate or sulfate) injection, 300 mg (as dihydrochloride)/ml in 2-ml ampoule

Complementary drugs

mefloquine (B)	tablet, 250 mg (as hydrochloride)
*sulfadoxine + pyrimethamine (B)	tablet, 500 mg + 25 mg
*doxycycline (B) ¹	capsule or tablet, 100 mg (hyclate)

Restricted indications

artemether	injection, 80 mg/ml in 1-ml ampoule
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(b) FOR PROPHYLAXIS

chloroquine	tablet, 150 mg (as phosphate or sulfate) syrup, 50 mg (as phosphate or sulfate)/5 ml
mefloquine	tablet, 250 mg (as hydrochloride)
proguanil ²	tablet, 100 mg (hydrochloride)

6.4.4 ANTITRYPANOSOMAL DRUGS**(a) AFRICAN TRYPANOSOMIASIS**

melarsoprol (5)	injection, 3.6% solution
pentamidine (5)	powder for injection, 200 mg (isetionate) in vial
suramin sodium (7)	powder for injection, 1 g in vial

Complementary drug

eflornithine (C)	injection, 200 mg (hydrochloride)/ml in 100 ml bottles
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(b) AMERICAN TRYPANOSOMIASIS

benznidazole (7)	tablet, 100 mg
nifurtimox (2, 8)	tablet, 30 mg, 120 mg, 250 mg

6.5 INSECT REPELLENTS

diethyltoluamide	topical solution, 50%, 75%
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Section 7: Antimigraine Drugs**7.1 FOR TREATMENT OF ACUTE ATTACK**

acetylsalicylic acid	tablet, 300 – 500 mg
ergotamine (7)	tablet, 1 mg (tartrate)
paracetamol	tablet, 300 – 500 mg

7.2 FOR PROPHYLAXIS

*propranolol	tablet, 20 mg, 40 mg (hydrochloride)
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Section 8: Antineoplastics, Immunosuppressives and Drugs Used in Palliative Care**8.1 IMMUNOSUPPRESSIVE DRUGS**

*azathioprine (2)	tablet, 50 mg powder for injection, 100 mg (as sodium salt) in vial
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ciclosporin (2) ³	capsule, 25 mg concentrate for injection 50 mg/ml in 1-ml ampoule
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8.2 CYTOTOXIC DRUGS

asparaginase (2)	powder for injection 10 000 IU in vial
bleomycin (2)	powder for injection, 15 mg (as sulfate) in vial
calcium folinate (2)	tablet, 15 mg injection, 3 mg/ml in 10-ml ampoule
chlormethine (2)	powder for injection 10 mg (hydrochloride) in vial
cisplatin (2)	powder for injection, 10 mg, 50 mg in vial
cyclophosphamide (2)	tablet, 25 mg powder for injection, 500 mg in vial
cytarabine (2)	powder for injection, 100 mg in vial
dacarbazine (2)	powder for injection, 100 mg in vial
dactinomycin (2)	powder for injection, 500 µg in vial
*doxorubicin (2)	powder for injection, 10 mg, 50 mg (hydrochloride) in vial
etoposide (2)	capsule, 100 mg injection, 20 mg/ml in 5-ml ampoule
fluorouracil (2)	injection, 50 mg/ml in 5-ml ampoule
levamisole (2)	tablet, 50 mg (as hydrochloride)
mercaptopurine (2)	tablet, 50 mg
methotrexate (2)	tablet, 2.5 mg (as sodium salt) powder for injection, 50 mg (as sodium salt) in vial
procarbazine	capsule, 50 mg (as hydrochloride)
vinblastine (2)	powder for injection, 10 mg (sulfate) in vial
vincristine (2)	powder for injection, 1 mg, 5 mg (sulfate) in vial

* Example of a therapeutic group. Various drugs can serve as alternatives.

² For use only in combination with chloroquine.³ For organ transplantation.

8.3 HORMONES AND ANTIHORMONES

*prednisolone	tablet, 5 mg
	powder for injection, 20 mg, 25 mg, (as sodium phosphate or sodium succinate) in vial
tamoxifen	tablet, 10 mg, 20 mg (as citrate)

8.4 DRUGS USED IN PALLIATIVE CARE

The Committee recommended that all the drugs mentioned in the WHO publication *Cancer Pain Relief* be considered essential. The drugs are included in the relevant section of the model list, according to their therapeutic use, e.g. analgesics.

Section 9: Antiparkinsonism Drugs

*biperiden	tablet, 2 mg (hydrochloride)
	injection, 5 mg (lactate) in 1-ml ampoule
levodopa + *carbidopa (5, 6)	tablet, 100 mg + 10 mg, 250 mg + 25 mg

Section 10: Blood, Drugs affecting the**10.1 ANTIANAEMIA DRUGS**

ferrous salt	tablet, equivalent to 60 mg iron
	oral solution, equivalent to 25 mg iron (as sulfate)/1 ml
ferrous salt + folic acid ⁴	tablet, 60 mg + 250 µg
folic acid (2)	tablet, 1 mg, 5 mg
	injection, 1 mg (as sodium salt) in 1-ml ampoule
hydroxocobalamin (2)	injection, 1 mg in 1-ml ampoule

Complementary drug

*iron dextran (B) (5)	injection, equivalent to 50 mg iron/ml in 2-ml ampoule
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10.2 DRUGS AFFECTING COAGULATION

desmopressin (8)	injection, 4 µg (acetate)/ml in 1-ml ampoule
	nasal spray 10 µg (acetate)/ metered dose

heparin sodium	injection, 1000 IU/ml, 5000 IU/ml, 20 000 IU/ml in 1-ml ampoule
phytomenadione	injection, 10 mg/ml in 5-ml ampoule
	tablet, 10 mg
protamine sulfate	injection, 10 mg/ml in 5-ml ampoule
*warfarin (2, 6)	tablet, 1, 2 and 5 mg (sodium salt)

Section 11: Blood Products and Plasma Substitutes**11.1 PLASMA SUBSTITUTES**

*dextran 70	injectable solution, 6%
*polygeline	injectable solution, 3.5%

11.2 PLASMA FRACTIONS FOR SPECIFIC USE⁵

*albumin, human (2, 8)	injectable solution, 5%, 25%
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Complementary drugs

*factor VIII concentrate (C) (2, 8)	(dried)
*factor IX complex (coagulation factors II, VII, IX, X) concentrate (C) (2, 8)	(dried)

Section 12: Cardiovascular Drugs**12.1 ANTIANGINAL DRUGS**

*atenolol	tablet, 50 mg, 100 mg
glyceryl trinitrate	tablet (sublingual), 500 µg
*isosorbide dinitrate	tablet (sublingual), 5 mg
*verapamil (10)	tablet, 40 mg, 80 mg (hydrochloride)

12.2 ANTIDYSRHYTHMIC DRUGS

*atenolol	tablet, 50 mg, 100 mg
lidocaine	injection, 20 mg (hydrochloride)/ml in 5-ml ampoule
verapamil (8) (10)	tablet, 40 mg, 80 mg (hydrochloride)
	injection, 2.5 mg (hydrochloride)/ml in 2-ml ampoule

* Example of a therapeutic group. Various drugs can serve as alternatives.

⁴ Nutritional supplement for use during pregnancy.

⁵ All plasma fractions should comply with the WHO requirements for the collection, processing and quality control of blood, blood components, and plasma derivatives (Revised 1992). In: WHO Technical Report Series, No. 840, 1994, Annex 2.

*Complementary drug*isoprenaline (C) injection 1 mg
(hydrochloride)/ml*procainamide (B) tablet, 250 mg,
500 mg (hydrochloride)
injection, 100 mg (hydrochloride)/ml
in 10-ml ampoule

*quinidine (A) (7) tablet, 200 mg (sulfate)

12.3 ANTIHYPERTENSIVE DRUGS

*atenolol (B) tablet, 50 mg, 100 mg

*captopril (B) scored tablet, 25 mg

*hydralazine tablet, 25 mg, 50 mg (hydrochloride)
powder for injection, 20 mg
(hydrochloride) in ampoule

*hydrochlorothiazide scored tablet, 25 mg

*nifedipine (10) capsule or tablet, 10 mg

Complementary drugs

doxazosin mesilate (B) tablet, 1 mg, 2 mg, 4 mg

methyldopa (B) (7) tablet, 250 mg

*reserpine (A) tablet, 100 µg, 250 µg
injection, 1 mg in 1-ml ampoule*sodium nitroprusside powder for preparing
(C) (2, 8) infusion, 50 mg in ampoule**12.4 CARDIAC GLYCOSIDES**digoxin (4) tablet, 62.5 µg, 250 µg
oral solution, 50 µg/ml
injection, 250 µg/ml in 2-ml ampoule*Complementary drug*digitoxin (B) (6) tablet, 50 µg, 100 µg
injection, 200 µg in 1-ml ampoule**12.5 DRUGS USED IN VASCULAR SHOCK**dopamine injection, 40 mg
(hydrochloride)/ml in 5-ml vial**12.6 ANTITHROMBOTIC DRUGS**

acetylsalicylic acid tablet, 100 mg

*Complementary drug*streptokinase (C) powder for injection,
100 000 IU, 750 000 IU in vial**Section 13:
Dermatological Drugs (topical)****13.1 ANTIFUNGAL DRUGS**benzoic acid + salicylic acid ointment or
cream, 6% + 3%

*miconazole ointment or cream, 2% (nitrate)

sodium thiosulfate solution, 15%

*Complementary drug*selenium sulfide (C) detergent-based
suspension, 2%**13.2 ANTI-INFECTIVE DRUGS***methyrosanilinium chloride aqueous solution, 0.5%
(gentian violet) tincture, 0.5%

potassium permanganate aqueous solution, 1:10 000

neomycin +/- *bacitracin ointment,
5 mg neomycin sulfate
+ 500 IU bacitracin zinc/g

silver sulfadiazine cream, 1%, in 500-g container

**13.3 ANTI-INFLAMMATORY AND
ANTIPRURITIC DRUGS***betamethasone (3) ointment or cream,
0.1% (as valerate)

*calamine lotion lotion

*hydrocortisone ointment or cream, 1% (acetate)

13.4 ASTRINGENT DRUGS

aluminium diacetate solution, 13% for dilution

**13.5 KERATOPLASTIC AND
KERATOLYTIC AGENTS**

benzoyl peroxide lotion or cream, 5%

coal tar solution, 5%

dithranol ointment, 0.1 – 2%

fluorouracil ointment, 5%

*podophyllum resin (7) solution, 10 – 25%

salicylic acid solution, topical 5%

urea ointment or cream, 10%

13.6 SCABICIDES AND PEDICULICIDES

benzyl benzoate lotion, 25%

permethrin cream, 1%, 5%

* Example of a therapeutic group. Various drugs can serve as alternatives.

13.7 ULTRAVIOLET BLOCKING AGENTS*Complementary drugs*

- *benzophenones, SPF15(C) cream, lotion or gel
 *zinc oxide (C) cream, ointment

*hydrochlorothiazide tablet, 25 mg, 50 mg

Complementary drugs

- *mannitol (C) injectable solution, 10%, 20%
 spironolactone (C) tablet, 25 mg

Section 14: Diagnostic Agents**14.1 OPHTHALMIC DRUGS**

- fluorescein eye drops, 1% (sodium salt)
 *tropicamide eye drops, 0.5%

14.2 RADIOCONTRAST MEDIA

- *amidotrizoate injection, 140 – 420 mg iodine
 (as sodium or meglumine salts)/ml in 20-ml ampoule
 barium sulfate aqueous suspension
 *iopanoic acid tablet, 500 mg
 *propylidone oily suspension,
 500-600 mg/ml in 20-ml ampoule⁶

Complementary drug

- *meglumine iotroxate (C) solution, 5 – 8 g iodine
 in 100–250 ml

**Section 15:
Disinfectants and Antiseptics****15.1 ANTISEPTICS**

- *chlorhexidine solution, 5% (digluconate)
 concentrate for dilution
 hydrogen peroxide solution, 3%
 *polyvidone iodine solution, 10%

15.2 DISINFECTANTS

- *calcium hypochlorite powder for solution
 glutaral solution, 2%
 *phenolic solution

Section 16: Diuretics

- *amiloride (4, 7, 8) tablet, 5 mg (hydrochloride)
 *furosemide tablet, 40 mg
 injection, 10 mg/ml in
 2-ml ampoule

Section 17: Gastrointestinal Drugs**17.1 ANTACIDS AND OTHER ANTIULCER DRUGS**

- aluminium hydroxide tablet, 500 mg
 oral suspension, 320 mg/5 ml
 *cimetidine tablet, 200 mg
 injection, 200 mg in 2-ml ampoule
 magnesium hydroxide oral suspension, 550 mg
 magnesium oxide/10 ml

17.2 ANTIEMETIC DRUGS

- metoclopramide tablet, 10 mg (as hydrochloride)
 injection, 5 mg (as hydrochloride)/ml
 in 2-ml ampoule
 *promethazine tablet, 10 mg,
 25 mg (hydrochloride)
 elixir or syrup, 5 mg
 (hydrochloride)/5 ml
 injection, 25 mg (hydrochloride)/ml
 in 2-ml ampoule

17.3 ANTIHAEMORRHOIDAL DRUGS

- *local anaesthetic, astringent ointment
 and anti-inflammatory drug or suppository

17.4 ANTI-INFLAMMATORY DRUGS

- hydrocortisone suppositories, 25 mg (acetate)
 *sulfasalazine (2) tablet, 500 mg

17.5 ANTISPASMODIC DRUGS

- *atropine tablet, 1 mg (sulfate)
 injection, 1 mg (sulfate)
 in 1-ml ampoule

17.6 CATHARTIC DRUGS

- *senna tablet, 7.5 mg (sennosides)
 (or traditional dosage forms)

* Example of a therapeutic group. Various drugs can serve as alternatives.

⁶ This suspension is for administration only into the bronchial tree.

17.7 DIARRHOEA, DRUGS USED IN**17.7.1 ORAL REHYDRATION**

oral rehydration salts (for glucose/
electrolyte solution) powder, 27.9 g/l

Components to reconstitute 1 litre of glucose/electrolyte solution:	g/l
sodium chloride	3.5
trisodium citrate dihydrate ⁷	2.9
potassium chloride	1.5
glucose	20.0

**17.7.2 ANTIDIARRHOEAL (SYMPTOMATIC)
DRUGS**

*codeine (1a) tablet, 30 mg (phosphate)

**Section 18: Hormones, other Endo-
crine Drugs and Contraceptives****18.1 ADRENAL HORMONES AND
SYNTHETIC SUBSTITUTES**

*dexamethasone tablet, 500 µg, 4 mg

injection, 4 mg (as sodium
phosphate) in 1-ml ampoule

hydrocortisone powder for injection, 100 mg
(as sodium succinate) in vial

*prednisolone tablet, 1 mg, 5 mg

Complementary drug

fludrocortisone (C) tablet, 100 µg (acetate)

18.2 ANDROGENS*Complementary drug*

testosterone (C) (2) injection, 200 mg
(enantate) in 1-ml ampoule

18.3 CONTRACEPTIVES**18.3.1 HORMONAL CONTRACEPTIVES**

*ethinylestradiol +
*levonorgestrel tablet, 30 µg + 150 µg,
30 µg + 250 µg

*ethinylestradiol +
*norethisterone tablet, 35 µg + 1.0 mg

Complementary drugs

medroxy-
progesterone depot injection
acetate (B) (7, 8) 150 mg/ml in 1-ml,
50 mg/ml in 1-ml vial

*levonorgestrel (B) tablet 30 µg

norethisterone oily solution, 200 mg/ml in
enantate (B) (7, 8) 1-ml ampoule

*ethinylestradiol +
*levonorgestrel (C) 50 µg + 250 µg (pack of four)

18.3.2 INTRAUTERINE DEVICES

copper-containing device

18.3.3 BARRIER METHODS

condoms with or without spermicide (nonoxinol)

diaphragms with spermicide (nonoxinol)

18.4 ESTROGENS

*ethinylestradiol tablet, 50 µg, 10 µg

**18.5 INSULINS AND OTHER ANTIDIABETIC
AGENTS**

insulin injection (soluble) injection,
40 IU/ml in 10-ml vial,
80 IU/ml in 10-ml vial,
100 IU/ml in 10-ml vial

intermediate-acting insulin injection,
40 IU/ml in 10-ml vial,
80 IU/ml in 10-ml vial,
100 IU/ml in 10-ml vial
(as compound insulin zinc suspension
or isophane insulin)

*tolbutamide tablet, 500 mg

18.6 OVULATION INDUCERS

*clomifene (2, 8) tablet, 50 mg (citrate)

18.7 PROGESTOGENS

norethisterone tablet, 5 mg

Complementary drug

medroxyprogesterone acetate (B) tablet, 5 mg

* Example of a therapeutic group. Various drugs can serve as alternatives.

⁷ Trisodium citrate dihydrate may be replaced by sodium bicarbonate (sodium hydrogen carbonate) 2.5 g/litre. However, as the stability of this latter formulation is very poor under tropical conditions, it is only recommended when manufactured for immediate use.

18.8 THYROID HORMONES AND ANTITHYROID DRUGS

levothyroxine	tablet, 50 µg, 100 µg (sodium salt)
potassium iodide	tablet, 60 mg
*propylthiouracil	tablet, 50 mg

Section 19: Immunologicals

19.1 DIAGNOSTIC AGENTS

tuberculin, ⁸ purified protein derivative (PPD)	injection
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19.2 SERA AND IMMUNOGLOBULINS⁹

anti-D immunoglobulin, (human)	injection, 250 µg in single-dose vial
antiscorpion sera	injection
*antitetanus immunoglobulin, human	injection, 500 IU in vial
antivenom serum	injection
diphtheria antitoxin	injection, 10 000 IU, 20 000 IU in vial
immunoglobulin, human normal (2)	injection (intramuscular)
immunoglobulin, human normal (2, 8)	injection (intravenous)
*rabies immunoglobulin	injection, 150 IU/ml

19.3 VACCINES¹⁰

19.3.1 FOR UNIVERSAL IMMUNIZATION

BCG vaccine (dried)	injection
diphtheria-pertussis-tetanus vaccine	injection
diphtheria-tetanus vaccine	injection
hepatitis B vaccine	injection
measles-mumps-rubella vaccine	injection
measles vaccine	injection
poliomyelitis vaccine (live attenuated)	oral solution
poliomyelitis vaccine (inactivated)	injection
tetanus vaccine	injection
tetanus-diphtheria (Td)	injection

19.3.2 FOR SPECIFIC GROUPS OF INDIVIDUALS

influenza vaccine	injection
meningococcal vaccine	injection
rabies vaccine	injection (in cell culture)
rubella vaccine	injection
typhoid vaccine	injection
yellow fever vaccine	injection

Section 20:

Muscle Relaxants (peripherally acting) and Cholinesterase Inhibitors

*alcuronium chloride (2)	injection, 5 mg/ml in 2-ml ampoule
*neostigmine bromide	tablet, 15 mg injection, 500 µg, 2.5 mg (metilsulfate) in 1-ml ampoule
pyridostigmine bromide (2, 8)	tablet, 60 mg injection, 1 mg in 1-ml ampoule
suxamethonium (2) chloride	injection, 50 mg/ml in 2-ml ampoule powder for injection
<i>Complementary drug</i>	
vecuronium bromide (C)	powder for injection, 10 mg in vial

Section 21:

Ophthalmological Preparations

21.1 ANTI-INFECTIVE AGENTS

*gentamicin	solution (eye drops), 0.3%
*idoxuridine	solution (eye drops), 0.1% eye ointment, 0.2%
silver nitrate	solution (eye drops), 1%
*tetracycline	eye ointment, 1% (hydrochloride)

21.2 ANTI-INFLAMMATORY AGENTS

*prednisolone	eye drops, 0.5%
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* Example of a therapeutic group. Various drugs can serve as alternatives.

⁸ All tuberculins should comply with the WHO requirements for tuberculins (Revised 1985). WHO Technical Report Series, No. 745, 1987, Annex 1.

⁹ All plasma fractions should comply with the WHO requirements for the collection, processing and quality control of blood, blood components and plasma derivatives (Revised 1992). In: WHO Technical Report Series, No. 840, 1994, Annex 2.

¹⁰ All vaccines should comply with the WHO requirements for biological substances.

21.3 LOCAL ANAESTHETICS

*tetracaine solution (eye drops), 0.5%
(hydrochloride)

21.4 MIOTICS AND ANTIGLAUCOMA DRUGS

acetazolamide tablet, 250 mg

*pilocarpine solution (eye drops), 2%, 4%
(hydrochloride or nitrate)

*timolol solution (eye drops), 0.25%, 0.5%
(maleate)

21.5 MYDRIATICS

atropine solution (eye drops),
0.1%, 0.5%, 1% (sulfate)

Complementary drug

epinephrine (A) solution (eye drops), 2%
(as hydrochloride)

*fluphenazine (5) injection, 25 mg
(decanoate or enantate)
in 1-ml ampoule

*haloperidol tablet, 2 mg, 5 mg
injection, 5 mg in 1-ml ampoule

24.2 DRUGS USED IN MOOD DISORDERS

*amitriptyline tablet, 25 mg (hydrochloride)

lithium carbonate (2, 4) capsule or tablet, 300 mg

24.3 DRUGS USED FOR SEDATION AND GENERALIZED ANXIETY DISORDERS

*diazepam (1b) scored tablet, 2 mg, 5 mg

24.4 DRUGS USED FOR OBSESSIVE COMPULSIVE DISORDERS AND PANIC ATTACKS

clomipramine capsules, 10 mg, 25 mg
(hydrochloride)

Section 22:**Oxytocics and Antioxytocics****22.1 OXYTOCICS**

*ergometrine tablet, 200 µg (hydrogen maleate)
injection, 200 µg (hydrogen maleate)
in 1-ml ampoule

oxytocin injection, 10 IU in 1-ml ampoule

22.2 ANTIOXYTOCICS

*salbutamol (2) tablet, 4 mg (as sulfate)
injection, 50 µg (as sulfate)/ml
in 5-ml ampoule

Section 23: Peritoneal Dialysis Solution

intraperitoneal dialysis solution parenteral solution
(of appropriate composition)

Section 24:**Psychotherapeutic Drugs****24.1 DRUGS USED IN PSYCHOTIC DISORDERS**

*chlorpromazine tablet, 100 mg (hydrochloride)
syrup, 25 mg (hydrochloride)/5 ml
injection, 25 mg (hydrochloride)/ml
in 2-ml ampoule

*fluphenazine (5) injection, 25 mg
(decanoate or enantate)
in 1-ml ampoule

*haloperidol tablet, 2 mg, 5 mg
injection, 5 mg in 1-ml ampoule

24.2 DRUGS USED IN MOOD DISORDERS

*amitriptyline tablet, 25 mg (hydrochloride)

lithium carbonate (2, 4) capsule or tablet, 300 mg

24.3 DRUGS USED FOR SEDATION AND GENERALIZED ANXIETY DISORDERS

*diazepam (1b) scored tablet, 2 mg, 5 mg

24.4 DRUGS USED FOR OBSESSIVE COMPULSIVE DISORDERS AND PANIC ATTACKS

clomipramine capsules, 10 mg, 25 mg
(hydrochloride)

Section 25: Drugs Acting on the Respiratory Tract**25.1 ANTI-ASTHMATIC DRUGS**

*aminophylline (2) injection, 25 mg/ml
in 10-ml ampoule

theophylline (10) tablet, 100 mg, 200 mg

*beclometasone inhalation (aerosol), 50 µg
(dipropionate) per dose

*epinephrine injection, 1 mg (as hydrochloride
or hydrogen tartrate)
in 1-ml ampoule

*salbutamol tablet, 2 mg, 4 mg (as sulfate)
inhalation (aerosol), 100 µg
(as sulfate) per dose
syrup, 2 mg (as sulfate)/5 ml
injection, 50 µg (as sulfate)/ml
in 5-ml ampoule
respirator solution for use in nebulizers,
5 mg (as sulfate)/ml

Complementary drugs

*cromoglicic acid (B) inhalation (cartridge),
20 mg (sodium salt) per dose

25.2 ANTITUSSIVES

*codeine (1a) tablet, 10 mg (phosphate)

* Example of a therapeutic group. Various drugs can serve as alternatives.

Section 26: Solutions correcting Water, Electrolyte and Acid-base Disturbances

26.1 ORAL

oral rehydration salts (for glucose/electrolyte solution)	see section 17.7.1
potassium chloride	powder for solution

26.2 PARENTERAL

*compound solution of sodium lactate	injectable solution
glucose	injectable solution, 5% isotonic, 50% hypertonic
glucose with sodium chloride	injectable solution, 4% glucose, 0.18% sodium chloride (equivalent to Na ⁺ 30 mmol/l Cl ⁻ 30 mmol/l)
potassium chloride (2)	11.2% solution in 20-ml ampoule, (equivalent to K ⁺ 1.5 mmol/ml, Cl ⁻ 1.5 mmol/ml)
sodium chloride	injectable solution, 0.9% isotonic (equivalent to Na ⁺ 154 mmol/l, Cl ⁻ 154 mmol/l)
sodium hydrogen carbonate	injectable solution, 1.4% isotonic (equivalent to Na ⁺ 167 mmol/l, HCO ₃ ⁻ 167 mmol/l) 8.4% solution in 10-ml ampoule (equivalent to Na ⁺ 1000 mmol/l, HCO ₃ ⁻ 1000 mmol/l)

26.3 MISCELLANEOUS

water for injection	2-ml, 5-ml, 10-ml ampoules
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Section 27: Vitamins and Minerals

ascorbic acid	tablet, 50 mg
*ergocalciferol	capsule or tablet, 1.25 mg (50 000 IU) oral solution, 250 µg/ml (10 000 IU/ml)
iodine (8)	iodized oil, 1 ml (480 mg iodine), 0.5 ml (240 mg iodine) in ampoule (oral or injectable) iodized oil, 0.57 ml (308 mg iodine) in dispenser bottle capsule, 200 mg
*nicotinamide	tablet, 50 mg
pyridoxine	tablet, 25 mg (hydrochloride)
*retinol	sugar-coated tablet, 10 000 IU (as palmitate) (5.5 mg) capsule, 200 000 IU (as palmitate) (110 mg) oral oily solution, 100 000 IU/ml in multidose dispenser (as palmitate) water-miscible injection, 100 000 IU (as palmitate) (55 mg) in 2-ml ampoule
riboflavin	tablet, 5 mg
*sodium fluoride	in any appropriate formulation
thiamine	tablet, 50 mg (hydrochloride)

Complementary drug

calcium gluconate (C), (2, 8)	injection, 100 mg/ml in 10-ml ampoule
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The following changes in the WHO Model List were approved by the WHO Expert Committee on the Use of Essential Drugs which met in December 1995. The report of the meeting will be published in the WHO Technical Report Series.

Deletions: aminobenzoic acid, indometacin, norethisterone, piperazine, piperacillin, tetracycline (oral)

Additions:

artemether
ceftazidime
ceftriaxone
clonazepam
phenolic
doxazosin mesilate
isoniazid + ethambutol

levonorgestrel
magnesium sulfate
potassium permanganate
rifampicin + isoniazid + pyrazinamide
urea
vancomycin

* Example of a therapeutic group. Various drugs can serve as alternatives.