WHO DRUG INFORMATION

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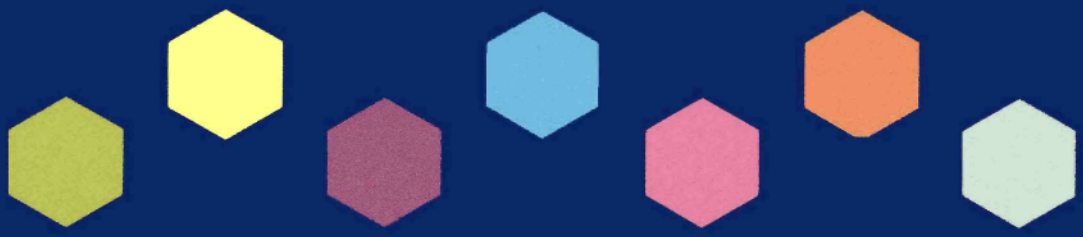
RECOMMENDED INN LIST 39

INTERNATIONAL NONPROPRIETARY NAMES FOR PHARMACEUTICAL SUBSTANCES



WORLD HEALTH ORGANIZATION · GENEVA

WHO Drug Information

Contents

Essential Drugs

WHO Model List (revised in December 1997)

Section 1: Anaesthetics

1.1 GENERAL ANAESTHETICS AND OXYGEN

ether, anaesthetic (1c) (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

Complementary drug

ephedrine (C) *(To prevent hypotension in spinal anaesthesia during delivery)*	injection, 30 mg (hydrochloride)/ml in 1-ml ampoule

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

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".

Many drugs included in the list are preceded by an asterisk (*) to indicate that they represent an example of a therapeutic group and that various drugs could serve as alternatives. It is imperative that this is understood when drugs are selected at national level, since choice is then influenced by the comparative cost and availability of equivalent products. Examples of acceptable substitutions include:

* Hydrochlorothiazide: any other thiazide-type diuretic currently in broad clinical use.
* Hydralazine: any other peripheral vasodilator having an antihypertesnive effect.
* Senna: any stimulant laxative (either synthetic or of plant origin).
* Sulfadiazine: any other short-acting systemically-active sulfonamide unlikely to cause crystalluria.

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;
(11) Therapeutic drug monitoring, i.e. plasma concentration, can improve safety and efficacy.

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.
(D) Reserve antimicrobials to be used only when there is significant resistance to other drugs on the list.

Drugs are listed in alphabetical order.

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
	tablet, 5 mg
*morphine (1a)	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule
*promethazine	elixir or syrup, 5 mg (hydrochloride)/5 ml

Section 2: Analgesics, Antipyretics, Nonsteroidal Anti-Inflammatory Drugs (NSAIDs), Drugs Used to Treat Gout and Disease-Modifying Agents in Rheumatic Disorders (DMARDs)

2.1 NON-OPIOID ANALGESICS & NSAIDs

acetylsalicylic acid	tablet, 100 – 500 mg
	suppository, 50 – 150 mg
*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)

2.3 DRUGS USED TO TREAT GOUT

allopurinol (4)	tablet, 100 mg
colchicine (7)	tablet, 500 µg

2.4 DISEASE MODIFYING AGENTS IN RHEUMATIC DISORDERS

chloroquine (2)	tablet, 100 mg, 150 mg (as phosphate or sulfate)
methotrexate (2)	tablet, 2.5 mg (as sodium salt)
penicillamine (2)	capsule or tablet, 250 mg
sulfasalazine (2)	tablet, 500 mg
azathioprine (2)	tablet, 50 mg
cyclophosphamide (2)	tablet, 25 mg

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 dexamethasone phosphate (as disodium) 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

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
calcium gluconate (2, 8)	injection, 100 mg/ml in 10-ml ampoule
deferoxamine	powder for injection, 500 mg (mesilate) in vial
dimercaprol (2)	injection in oil, 50 mg/ml in 2-ml ampoule
*$_{DL}$-methionine	tablet, 250 mg

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

methylthioninium 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) (Prussian blue)	powder for oral administration
sodium calcium edetate (2)	injection, 200 mg/ml in 5-ml ampoule
sodium nitrite	injection, 30 mg/ml in10-ml ampoule
sodium thiosulfate	injection, 250 mg/ml in 50-ml ampoule

Section 5: Anticonvulsants/ Antiepileptics

carbamazepine (10, 11)	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
phenobarbital (1b, 11)	tablet, 15 – 100 mg
	elixir, 15 mg/5 ml
phenytoin (7, 11)	capsule or tablet, 25 mg, 50 mg, 100 mg (sodium salt)
	injection, 50 mg (sodium salt)/ml in 5-ml vial
valproic acid (7, 11)	enteric coated tablet, 200 mg, 500 mg (sodium salt)
Complementary drugs	
*clonazepam (B) (1b)	scored tablets, 500 µg
magnesium sulfate (C)	injection, 500 mg/ml in 2-ml ampoule, 5 g in 10-ml ampoule

Section 6: Anti-infective Drugs

6.1 ANTHELMINTHICS

6.1.1 INTESTINAL ANTHELMINTHICS

albendazole	chewable tablet, 400 mg
levamisole	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, 100 mg (dihydrogen citrate)
ivermectin	scored tablet, 3 mg, 6 mg
Complementary drug	
suramin sodium (B) (2, 7)	powder for injection, 1 g in vial

6.1.3 ANTISCHISTOSOMALS AND OTHER ANTITREMATODE DRUGS

praziquantel	tablet, 600 mg
triclabendazole	tablet, 250 mg
Complementary drug	
oxamniquine (C) (8)	capsule, 250 mg
	syrup, 250 mg/5 ml

6.2 ANTIBACTERIALS

6.2.1 BETA LACTAM DRUGS

*amoxicillin	capsule or tablet, 250 mg, 500 mg (anhydrous)
	powder for oral suspension, 125 mg (anhydrous)/5 ml
ampicillin	powder for injection, 500 mg, 1 g (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) (sodium or potassium salt) in vial
*cloxacillin	capsule, 500 mg, 1 g (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

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

procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU)
Reserve antibacterials	
*amoxicillin + *clavulanic acid (D)	tablet, 500 mg + 125 mg,
ceftazidime (D)	powder for injection, 250 mg (as pentahydrate) in vial
*ceftriaxone (D)	powder for injection, 250 mg (as sodium salt) in vial
imipenem + cilastatin (D)	powder for injection, 250 mg (as monohydrate) + 250 mg, (as sodium salt) 500 mg (as monohydrate) + 500 mg in vial (as sodium salt)

6.2.2 OTHER ANTIBACTERIALS

*chloramphenicol (7)	capsule, 250 mg
	oral suspension, 150 mg (as palmitate)/5 ml
	powder for injection, 1 g (sodium succinate) in vial
*ciprofloxacin	tablet, 250 mg (as hydrochloride)
*doxycycline (5, 6)	capsule or tablet, 100 mg (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, 11)	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, 8)	tablet, 100 mg
spectinomycin (8)	powder for injection, 2 g (as hydrochloride) in vial
*sulfadiazine (4)	tablet, 500 mg
	injection, 250 mg (sodium salt) in 4-ml ampoule
*sulfamethoxazole + trimethoprim (4)	tablet, 100 mg + 20 mg, 400 mg + 80 mg
	oral suspension, 200 mg + 40 mg/5 ml
	injection, 80 mg + 16 mg/ml in 5-ml and 10-ml ampoule
trimethoprim (8)	tablet, 100 mg, 200 mg
	injection, 20 mg/ml in 5-ml ampoule
Complementary drugs	
chloramphenicol (C)	oily suspension for injection, 0.5 g (as sodium succinate)/ml in 2-ml ampoule
clindamycin (B) (8)	capsule, 150 mg
	injection, 150 mg (as phosphate)/ml
Reserve antibacterial	
vancomycin (D)	powder for injection 250 mg (as hydrochloride) in vial

6.2.3 ANTILEPROSY DRUGS

clofazimine	capsule, 50 mg, 100 mg
dapsone	tablet, 25 mg, 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
isoniazid + ethambutol (5)	tablet, 150 mg + 400 mg (hydrochloride)
pyrazinamide	tablet, 400 mg
rifampicin	capsule or tablet, 150 mg, 300 mg
rifampicin + isoniazid (5)	tablet,150 mg + 75 mg, 300 mg + 150 mg, 150 mg + 150 mg *(for intermittent use 3 times weekly)*
rifampicin + isoniazid + pyrazinamide	tablet, 150 mg + 75 mg + 400 mg, 150 mg + 150 mg + 500 mg *(for intermittent use 3 times weekly)*
streptomycin (4)	powder for injection, 1 g (as sulfate) in vial
Complementary drug	
thioacetazone + isoniazid (A) (5, 7)	tablet, 50 mg + 100 mg, 150 mg + 300 mg

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

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

Complementary drugs

flucytosine (B) (4, 8) — capsule, 250 mg

infusion, 2.5 g in 250 ml

potassium iodide (A) — saturated solution

6.4 ANTIVIRALS

6.4.1 ANTIHERPES

aciclovir (8) — tablet, 200 mg

powder for injection, 250 mg (as sodium salt)

6.4.2 ANTIRETROVIRALS

zidovudine (8) — capsule, 100 mg, 250 mg

injection, 10 mg/ml in 20-ml vial

oral solution, 50 mg/5 ml

Drugs for treatment of HIV/AIDS include nucleoside reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs) and protease inhibitors (PIs). The prototype drug, zidovudine, has been shown to reduce or prevent mother-to-child transmission. **This is the only indication for which it is included here**. Single drug use with zidovudine, except in pregnancy, is now regarded as obsolete because of the development of resistance. Triple therapy is beyond the budgets of most national drug programmes and therefore HIV/AIDS treatment policies must be decided at country or institutional level.

6.5 ANTIPROTOZOAL DRUGS

6.5.1 ANTIAMOEBIC 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

6.5.2 ANTILEISHMANIASIS DRUGS

*meglumine antimonate — injection, 30%, equivalent to approx. 8.5% antimony, in 5-ml ampoule

pentamidine (5) — powder for injection, 200 mg, 300 mg (isetionate) in vial

Complementary drug

amphotericin B (4) (B) — powder for injection, 50 mg in vial

6.5.3 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 (bisulfate or sulfate)

injection, 300 mg (as dihydrochloride)/ml in 2-ml ampoule

Complementary drugs

*doxycycline (B) *(for use only with quinine)* — capsule or tablet, 100 mg (hyclate)

mefloquine (B) — tablet, 250 mg (as hydrochloride)

*sulfadoxine + pyrimethamine (B) — tablet, 500 mg + 25 mg

Reserve antimalarial

artemether (D) — injection, 80 mg/ml in 1-ml ampoule

(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 — tablet, 100 mg (hydrochloride) *(for use only in combination with chloroquine)*

6.5.4 ANTIPNEUMOCYSTOSIS AND ANTITOXOPLASMOSIS DRUGS

pyrimethamine — tablet, 25 mg

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

sulfamethoxazole + trimethoprim	injection, 80 mg + 16 mg/ml in 5-ml ampoule
pentamidine (2)	tablet, 200 mg, 300 mg (isetionate)

6.5.5 ANTITRYPANOSOMAL DRUGS

(a) AFRICAN TRYPANOSOMIASIS

melarsoprol (2)	injection, 3.6% solution
pentamidine (2)	powder for injection, 200 mg, 300 mg, (isetionate) in vial
suramin sodium	powder for injection, 1 g in vial
Complementary drug	
eflornithine (C)	injection, 200 mg (hydrochloride)/ml in 100-ml bottles

(b) AMERICAN TRYPANOSOMIASIS

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

6.6 INSECT REPELLENTS

diethyltoluamide	topical solution, 50%, 75%

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)

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
ciclosporin (2) *(for organ transplantation)*	capsule, 25 mg
	concentrate for injection 50 mg/ml in 1-ml ampoule

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

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)

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

8.4 DRUGS USED IN PALLIATIVE CARE

It is recommended that all the drugs mentioned in the WHO publication *Cancer Pain Relief with a Guide to Opioid Availability, 2nd. edition,* 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: Drugs affecting the Blood

10.1 ANTIANAEMIA DRUGS

ferrous salt	tablet, equivalent to 60 mg iron
	oral solution, equivalent to 25 mg iron (as sulfate)/ml
ferrous salt + folic acid *(nutritional supplement for use during pregnancy)*	tablet,equivalent to 60 mg iron + 400 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 (as complex of iron(III) hydroxide with dextrans)/ml in 2-ml ampoule

10.2 DRUGS AFFECTING COAGULATION

desmopressin (8)	injection, 4µg (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 USE [1]

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

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 ANTIARRHYTHMIC DRUGS

*atenolol	tablet, 50 mg, 100 mg
digoxin (4, 11)	tablet, 62.5 µg, 250 µg
	oral solution, 50 µg/ml
	injection, 250 µg/ml in 2-ml ampoule
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.*

[1] All plasma fractions should comply with the Requirements for the collection, processing and quality control of blood, blood components, and plasma derivatives (revised 1992). WHO Technical Report Series, No. 840, 1994, Annex 2.

Complementary drugs

isoprenaline (C)	injection 20 µg (hydrochloride)/ml
epinephrine (C)	injection, 1 mg (as 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	tablet, 50 mg, 100 mg
*captopril	scored tablet, 25 mg
*hydralazine	tablet, 25 mg, 50 mg (hydrochloride)
	powder for injection, 20 mg (hydrochloride) in ampoule
*hydrochlorothiazide	scored tablet, 25 mg
methyldopa (7)	tablet, 250 mg
*nifedipine (10)	modified release formulations
	tablet, 10 mg
*reserpine	tablet, 100 µg, 250 µg
	injection, 1 mg in 1-ml ampoule

Complementary drugs

doxazosin (B)	tablet, 1 mg, 2 mg, 4 mg (mesilate)
*sodium nitroprusside (C) (2, 8)	powder for infusion, 50 mg in ampoule

12.4 DRUGS USED IN HEART FAILURE

*captopril	scored tablet, 25 mg
digoxin (4, 11)	tablet, 62.5 µg, 250 µg
	oral solution, 50 µg/ml
	injection, 250 µg/ml in 2-ml ampoule
dopamine	injection, 40 mg (hydrochloride)/ml in 5-ml vial
*hydrochlorothiazide	tablet 25 mg, 50 mg

12.5 ANTITHROMBOTIC DRUGS

acetylsalicylic acid	tablet, 100 mg

Complementary drug

streptokinase (C)	powder for injection, 100 000 IU, 750 000 IU in vial

12.6 LIPID-LOWERING AGENTS

The Committee recognizes the value of lipid-lowering drugs in treating patients with hyperlipidaemia. However, there are many other risk factors for atherosclerosis and its complications including tobacco smoking and inadequately controlled hypertension. Most hyper-lipidaemias can be controlled by diet.

HMG CoA reductase inhibitors, often referred to as "statins" are potent and effective lipid-lowering drugs with a good tolerability profile. Several of them have now been shown to reduce fatal and non-fatal myocardial infarction, stroke, need for coronary by-pass surgery and all-cause mortality. All remain very costly but for primary prevention in some very high risk patients and secondary prevention they may be cost effective. Since no drug stands out for greater efficacy or lower cost, none is included in the List; each country should make its own decisions for use in highest risk patients.

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

*methylrosanilinium chloride (gentian violet)	aqueous solution, 0.5% tincture, 0.5%
neomycin + *bacitracin (7)	ointment, 5 mg (sulfate) + 500 IU bacitracin zinc/g
potassium permanganate	aqueous solution, 1:10 000
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)

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

13.4 ASTRINGENT DRUGS

aluminium diacetate	solution, 13% for dilution

13.5 DRUGS AFFECTING SKIN DIFFERENTIATION AND PROLIFERATION

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, 5%, lotion, 1%

13.7 ULTRAVIOLET BLOCKING AGENTS

Complementary drugs

topical sun protection agent with activity against UVA and UVB (C)	cream, lotion or gel

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 amidotrizoate)/ml in 20-ml ampoule
barium sulfate	aqueous suspension
*iopanoic acid	tablet, 500 mg
*propyliodone *(This suspension is for administration only into the bronchial tree.)*	oily suspension, 500-600 mg/ml in 20-ml ampoule

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) for dilution
*povidone-iodine	solution, 10%

15.2 DISINFECTANTS

*chlorine base compound	powder (0.1% available chlorine) for solution
*chloroxylenol	solution, 4.8%
glutaral	solution, 2%

Section 16: Diuretics

*amiloride (4, 7, 8)	tablet, 5 mg (hydrochloride)
*furosemide	tablet, 40 mg
	injection, 10 mg/ml in 2-ml ampoule
*hydrochlorothiazide	tablet, 25 mg, 50 mg
spironolactone (8)	tablet, 25 mg

Complementary drugs

*mannitol (C)	injectable solution, 10%, 20%

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, equivalent to 550 mg magnesium oxide/10 ml

17.2 ANTIEMETIC DRUGS

metoclopramide	tablet, 10 mg (hydrochloride)
	injection, 5 mg (hydrochloride)/ml in 2-ml ampoule

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

*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 and anti-inflammatory drug	ointment or suppository

17.4 ANTI-INFLAMMATORY DRUGS

hydrocortisone	suppository, 25 mg (acetate),
	retention enema
*sulfasalazine (2)	tablet, 500 mg
	suppository, 500 mg
	retention enema

17.5 ANTISPASMODIC DRUGS

*atropine	tablet, 0.6 mg (sulfate)
	injection, 1 mg (sulfate) in 1-ml ampoule

17.6 LAXATIVES

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

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 [2]	2.9
potassium chloride	1.5
glucose, anhydrous	20.0

17.7.2 ANTIDIARRHOEAL (SYMPTOMATIC) DRUGS

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

Section 18: Hormones, other Endocrine Drugs and Contraceptives

18.1 ADRENAL HORMONES AND SYNTHETIC SUBSTITUTES

*dexamethasone	tablet, 500 µg, 4 mg
	injection, 4 mg dexamethasone phosphate (as disodium) 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,
*ethinylestradiol + *norethisterone	tablet, 35 µg + 1.0 mg
Complementary drugs	
*ethinylestradiol + *levonorgestrel (C)	50 µg + 250 µg (pack of four)
*levonorgestrel (B)	tablet 30 µg
medroxy-progesterone acetate (B) (7, 8)	depot injection 150 mg/ml in 1-ml,
norethisterone enantate (B) (7, 8)	oily solution, 200 mg/ml in 1-ml ampoule

18.3.2 INTRAUTERINE DEVICES

copper-containing device

18.3.3 BARRIER METHODS

condoms with or without spermicide (nonoxinol)

diaphragms with spermicide (nonoxinol)

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

[2] 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.

18.4 ESTROGENS

*ethinylestradiol	tablet, 10 µg, 50 µg

18.5 INSULINS AND OTHER ANTIDIABETIC AGENTS

insulin injection (soluble)	injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial
intermediate-acting insulin (as compound	injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial insulin zinc suspension or isophane insulin)
*glibenclamide	tablet, 2.5 mg, 5 mg
metformin	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

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,[3] purified protein derivative (PPD)	injection

19.2 SERA AND IMMUNOGLOBULINS [4]

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 VACCINES [5]

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 (inactivated)	injection
poliomyelitis vaccine (live attenuated)	oral solution
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

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

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

[4] 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). WHO Technical Report Series, No. 840, 1994, Annex 2.

[5] All vaccines should comply with the WHO requirements for biological substances.

Section 20: Muscle Relaxants (peripherally acting) and Cholinesterase Inhibitors

*alcuronium chloride (2)	injection, 5 mg/ml in 2-ml ampoule
*neostigmine	tablet, 15 mg (bromide)
	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 chloride (2)	injection, 50 mg/ml in 2-ml ampoule
	powder for injection
Complementary drug	
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% (as sulfate)
*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% (sodium phosphate)

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% (as maleate)

21.5 MYDRIATICS

atropine	solution (eye drops), 0.1%, 0.5%, 1% (sulfate)
Complementary drug	
epinephrine (A)	solution (eye drops), 2% (as 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 (of appropriate composition)	parenteral solution

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

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

24.2 DRUGS USED IN MOOD DISORDERS

24.2.1 DRUGS USED IN DEPRESSIVE DISORDERS

*amitriptyline	tablet, 25 mg (hydrochloride)

24.2.2 DRUGS USED IN BIPOLAR DISORDERS

carbamazepine (10, 11)	scored tablet, 100 mg, 200 mg
lithium carbonate (2, 4)	capsule or tablet, 300 mg
valproic acid (7, 11)	enteric coated tablet, 200 mg, 500 mg (sodium salt)

24.3 DRUGS USED FOR GENERALIZED ANXIETY AND SLEEP 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 ANTIASTHMATIC DRUGS

*aminophylline (2)	injection, 25 mg/ml in 10-ml ampoule
*beclometasone	inhalation (aerosol), 50 µg, 250 µg, (dipropionate) per dose
*epinephrine	injection, 1 mg (as hydrochloride or hydrogen tartrate) in 1-ml ampoule
ipratropium bromide	inhalation, 20 µg/metered dose
*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
theophylline (10, 11)	tablet, 100 mg, 200 mg
Complementary drug	
*cromoglicic acid (B)	inhalation (aerosol), 20 mg (sodium salt) per dose

25.2 ANTITUSSIVES

*dextromethorphan	oral solution, 3.5 mg/5 ml

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

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)

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

	solution,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

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 1997. The report of the meeting will be published in the WHO Technical Report Series.

Deletions: hydrogen peroxide; metrifonate.

Additions: aciclovir for use in herpes infections; amoxicillin + clavulanic acid for treatment of infections resistant to the production of beta lactamase; dextromethorphan for treatment of cough; ephedrine for treatment of hypotension in spinal anaesthesia during delivery; imipenem + cilastatin for treatment of *Pseudomonas* and *Acinetobacter* spp.; ipratropium bromide for the treatment of asthma; metformin for the treatment of non-insulin dependent diabetes; triclabendazole for treatment of liver and lung flukes; zidovudine to reduce or prevent mother-to-child transmission of HIV infection.

Replacements: chloroxylenol to replace phenol disinfectant; chlorine (NaDCC) for calcium hypochlorite; glibenclamide for tolbutamide; sulfadiazine for sulfadimidine; topical sunscreen for benzophenones and zinc oxide.

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

Recent Publications and Documents

Extended release oral dosage forms: guidance for applicants

The United States Food and Drug Administration has announced the availability of a guidance document entitled *Extended Release Oral Dosage Forms: development, evaluation and application of in vitro/in vivo correlations (IVIVC)*, which is intended to provide recommendations for the development of documentation in support of a new drug application, abbreviated new drug application or antibiotic drug application.

This document provides a comprehensive perspective on methods of developing an IVIVC and evaluating its predictability, using an IVIVC to set dissolution specifications, and applying an IVIVC as a surrogate for in vivo bioequivalence when it is necessary to document this during the initial approval process or because of certain pre-approval or post-approval changes in formulation, equipment, process, or a manufacturing site. However, the guidance is not binding and an alternative approach may be used if this satisfies the requirements of the applicable statute, regulations, or both.

Extended Release Oral Dosage Forms: development, evaluation and application of in vitro/in vivo correlations. Available from: Drug Information Branch, HFD 210, Center for Drug Evaluation and Research, Food and Drug Administration, Rockville, MD 20857, USA. Or: http://www.fda.gov/cder/guidance/index.htm.

United Nations Consolidated List

The Consolidated List of Products whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or Not Approved by Governments is a unique list of restrictive regulatory actions on pharmaceuticals taken by ninety-four governments which has been compiled in response to a 1982 United Nations General Assembly resolution aimed to protect the public against products harmful to health.

Published in two parts, the first part provides information to inform governments of regulatory decisions taken in other countries and assists them in considering their own regulatory action. For regulatory agencies reviewing applications for product registration, it provides information on the status of products globally.

To ensure that the List focuses on products harmful to health, criteria for the inclusion of products have been developed. None the less, it is drawn to the reader's attention that decisions taken by a limited number of governments on a specific product may not be representative of the position of other governments, particularly in view of differing risk/benefit considerations. It is also important to note that all pharmaceutical products are potentially harmful if not correctly used. Inversely, the fact that a given product is not listed as regulated by a country does not necessarily mean that it is permitted in that country.

Part two of the list presents commercial information, including data on trade names. It thus provides an easy method of cross-referencing commercial names with recognized common scientific names.

Consolidated List of Products whose Consumption and/or Sale have been Banned, Withdrawn, Severely Restricted or Not Approved by Governments. United Nations, New York, 1997. Price US$ 120.- ISBN 92 1 130183 1

Manual on quality assurance

Assurance of the quality, safety and efficacy of pharmaceutical products is a continuing concern of WHO's Division of Drug Management & Policies. Despite efforts made in many parts of the world to ensure the supply of high-quality and effective drugs, inadequate pharmaceutical regulation and the presence of substandard, spurious or counterfeit products still compromise heath care delivery in many countries.

In response to the need for adequate quality assurance of pharmaceuticals, the WHO Expert Committee on Specifications for Pharmaceutical Preparations has, over the years, made numerous recommendations to promote quality assurance and the application of internationally agreed standards. Many of the recommendations, even though en-

dorsed several years ago, are still valid and are essential to all concerned with the quality assurance of medicines. They provide complementary parts of a comprehensive system to uphold quality assurance and will be reproduced by WHO in two accompanying volumes, supplemented by other relevant supporting material. The two manuals are designed to address not only the pharmaceutical aspects of the quality of medicines but also the intrinsic safety and efficacy of pharmacologically-active substances.

Volume 1 is now available and sets out to cover basic aspects of national drug regulation, assessment of drug products and herbals, stability, basic tests, laboratory services, international trade in pharmaceuticals, counterfeit products and training. Volume 2 is planned to be issued this year and will address issues of good manufacturing practice and inspection.

Quality Assurance of Pharmaceuticals. Volume 1. World Health Organization, Geneva. Price Sw.fr. 50.- (Sw.fr. 35.- developing countries) . ISBN 92 4 154504 6

Medicinal claims and food products

Food products are often advertised, marketed and sold to the public with health claims that are similar or mimic therapeutic indications which have been scientifically established for pharmaceutical products. The National Agency for Medicines in Finland has now published a guide indicating which medicinal claims are allowed for food products and which are prohibited.

Under the Foodstuffs Act of Finland, control and marketing of foodstuffs should be carried out by the National Food Administration. This covers advertising and labelling, as well as any other information supplied in a sales context. When required, the National Agency for Medicines assists in deciding whether a marketing claim made for a food product can be considered medicinal or therapeutic. The Act forbids any health related claims, or the supply of medicinal information as a part of the marketing strategy. This also means any suggestive statements indicating that use of the said food product could prevent, treat or cure an illness or its symptoms.

The guide lists some 70 claims that are considered a reference to an illness or a medical condition. The following are listed as examples: prevents insomnia, depression; prevents blood clotting and thus vascular obstruction; reduces the risk of cardiovascular disease; boosts circulation; prevents osteoporosis, muscle or joint pain, rheumatism, arthritis; prevents otitis; travel sickness, eczema, herpes or psoriasis; asthma, allergy; strengthens the nervous system; stimulates the memory; activates the endocrine glands; balances hormonal activity; deactivates free radicals known to cause heart disease and cancer; stimulates melatonin production; reduces the need for insulin; reinforces blood cells; heightens potency; increases the body's tolerance.

The guide also sets out statements which are acceptable. These should be based on substantiated medical evidence and should not mislead the consumer. Education on nutritional matters is considered to be in the interests of the consumer and such information may be supplemented with examples when certain foods are clearly beneficial to the vital functions of the body. It is therefore permitted to provide information on nutrition and to educate consumers on what constitutes a healthy diet. This would include information on fat or iron content, quality of the product, stimulation of body functions, contribution to lowering cholesterol levels, etc.

The usefulness of the guide will be evaluated in two years' time when a comparison is made with past and present promotional claims.

Guidebook on Monitoring the Medicinal Marketing of Foods in Finland. Department of Pharmacology, National Agency for Medicines, P.O. Box 55, 00301 Helsinki, Finland.

Paediatric prescribing information

Many physicians and health care providers are faced with the challenge of providing relevant information to patients on the correct use of medications which they have prescribed. Although there has been an increase in both research and studies on drug use in paediatric patients, until now very little specific prescribing information has been produced with children in mind and physicians are often forced to sift through information which has been provided for adult patients.

The American College of Clinical Pharmacy has recently published medication information sheets, in English and Spanish, designed to provide a con-

cise, understandable source of written information for paediatric patients. Two hundred medications are described, focusing on those products most frequently prescribed at hospital discharge or during physician home visits.

The medication sheets also include information on formulations and liquids which can be prepared by pharmacists from solid oral dosage forms. The use of these formulations allows the manipulation of available dosage forms into products more appropriate for small children.

All information relies on United States Food and Drug Administration recommendations and data provided for products available within the United States of America. However, before prescribing, physicians are reminded to consult package leaflets which will give the latest information on dosages, contraindications and use of the medication in question.

Pediatric Medication Education Text is available from: The American College of Clinical Pharmacy, 3101 Broadway, Suite 380, Kansas City, MO 64111, USA. ISBN 1 880401 89 4. e-mail: accp@accp.com.

International Nonproprietary Names for Pharmaceutical Substances (INN)

RECOMMENDED International Nonproprietary Names (Rec. INN): List 39

Notice is hereby given that, in accordance with paragraph 7 of the Procedure for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances [*Off. Rec. Wld Health Org.*, 1955, **60**, 3 (Resolution EB15.R7); 1969, **173**, 10 (Resolution EB43.R9)], the following names are selected as Recommended International Nonproprietary Names. The inclusion of a name in the lists of Recommended International Nonproprietary Names does not imply any recommendation of the use of the substance in medicine or pharmacy.
Lists of Proposed (1–73) and Recommended (1–35) International Nonproprietary Names can be found in *Cumulative List No 9, 1996.*

Dénominations communes internationales des Substances pharmaceutiques (DCI)

Dénominations communes internationales RECOMMENDÉES (DCI Rec): Liste 39

Il est notifié que, conformément aux dispositions du paragraphe 7 de la Procédure à suivre en vue du choix de Dénominations communes internationales recommandées pour les Substances pharmaceutiques [*Actes off. Org mond. Santé*, 1955, **60**, 3 (résolution EB15.R7); 1969, **173**, 10 (résolution EB43 R9)] les dénominations ci-dessous sont mises à l'étude par l'Organisation mondiale de la Santé en tant que dénominations communes internationales proposées. L'inclusion d'une dénomination dans les listes de DCI proposées n'implique aucune recommandation en vue de l'utilisation de la substance correspondante en médecine ou en pharmacie.
On trouvera d'autres listes de Dénominations communes internationales proposées (1–73) et recommandées (1–35) dans la *Liste récapitulative No 9, 1996.*

Denominaciones Comunes Internacionales para las Sustancias Farmacéuticas (DCI)

Denominaciones Comunes Internacionales RECOMENDADAS (DCI Rec.): Lista 39

De conformidad con lo que dispone el párrafo 7 del Procedimiento de Selección de Denominaciones Comunes Internacionales Recomendadas para las Sustancias Farmacéuticas [*Act. Of. Mund. Salud*, 1955, **60**, 3 (Resolución EB15.R7); 1969, **173**, 10 (Resolución EB43.R9)], se comunica por el presente anuncio que las denominaciones que a continuación se expresan han sido seleccionadas como Denominaciones Comunes Internacionales Recomendadas. La inclusión de una denominación en las listas de las Denominaciones Comunes Recomendadas no supone recomendación alguna en favor del empleo de la sustancia respectiva en medicina o en farmacia
Las listas de Denominaciones Comunes Internacionales Propuestas (1–73) y Recomendadas (1–35) se encuentran reunidas en *Cumulative List No. 9, 1996.*

Discussions have recently taken place between the World Intellectual Property Organization and WHO's Division of Drug Management and Policies regarding the ***protection of International Nonproprietary Names (INN)*** against (mis)use as domain names on INTERNET. These discussions were initiated *inter alia* in view of INN having been registered as domain names on Internet, for purposes not necessarily related to the global identification of a specific pharmaceutical substance to protect the safety of patients. In this regard, there have been several reported cases where an INN-based domain name has been registered on the Internet and then sold to a company which had an interest in avoiding proprietary use of the INN in question.

In order to help ensure that INN are used exclusively for the identification of a specific pharmaceutical substance under one single, globally available name and that no party can claim any proprietary rights to INN, a paragraph relating to INN has been proposed for inclusion in the *Trademark Dispute Resolution, Draft Substantive Guidelines concerning Administrative Domain Name Challenge Panels.* Details are available on:

http://www gtld-mou org/docs/tracps.htm and
http://www wipo.int/eng/internet/domains/index htm

After further consultation, it is suggested that the text of the proposed paragraph, as contained in clause 1 (b) of Annex B of the *Guidelines*, should read as follows[a]:

> *"A name published by the World Health Organization (WHO) in the Cumulative List of International Nonproprietary Names for Pharmaceutical Substances (INN), and updated regularly in WHO Drug Information, pursuant to World Health Assembly (WHA) Resolution 3.11 and subsequent resolutions "*

It is hoped that the inclusion of this paragraph will allow interested parties to challenge the registration of a domain name "if identical or confusingly identical" to an INN, in particular if such a registration has been made in bad faith.

WHO would like to emphasize that its main concern is the safety of patients. In accordance with WHA resolution 3.11 on Non-proprietary Names for Drugs (adopted in May 1950 by the Third World Health Assembly), the Organization is responsible for selecting and promoting the protection of recommended International Nonproprietary Names as a means of identifying pharmaceutical substances under one single, globally available name, in which no party can claim any proprietary rights.

For any further information or comments, please contact the Secretariat of the INN Programme (Division of Drug Management and Policies, World Health Organization, 20 av. Appia, CH-1211 Geneva 27, Fax: +41 22 791 4730, e-mail: koppkubels@who.ch).

[a] Based on the third revised draft of the *Guidelines* dated 16 January 1998.

Latin, English, French, Spanish.

Recommended INN	*Chemical name or description; Molecular formula; Graphic formula*
DCI Recommandée	*Nom chimique ou description; Formule brute; Formule développée*
DCI Recomendada	*Nombre químico o descripción; Fórmula empírica: Fórmula desarrollada*

acidum iocanlidicum (^{123}I)

iocanlidic acid (^{123}I)

15-(*p*-[^{123}I]iodophenyl)pentadecanoic acid

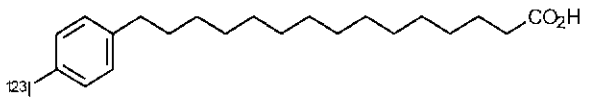
acide iocanlidique (^{123}I)

acide 15-(4-[^{123}I]iodophényl)pentadécanoique

ácido iocanlídico (^{123}I)

ácido 15-(*p*-[^{123}I]iodofenil)pentadecanoico

$C_{21}H_{33}{}^{123}IO_2$



acreozastum

acreozast

N,N'-(2-chloro-5-cyano-*m*-phenylene)bis[glycolamide]diacetate (ester)

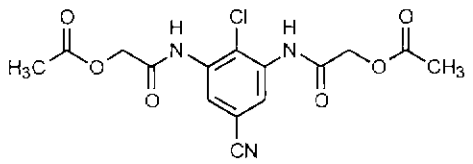
acréozast

diacétate de 2,2'-[2-chloro-5-cyano-1,3-phénylènebis(imino)]bis(2-oxoéthyle)

acreozast

éster diacético de *N,N'*-(2-cloro-5-ciano-*m*-fenilen)bis[glicolamida]

$C_{15}H_{14}ClN_3O_6$



argatrobanum

argatroban

(2*R* 4*R*)-4-methyl-1-[(*S*)-N^2-[[(*RS*)-1 2,3,4-tetrahydro-3-methyl-8-quinolyl]-sulfonyl]arginyl]pipecolic acid

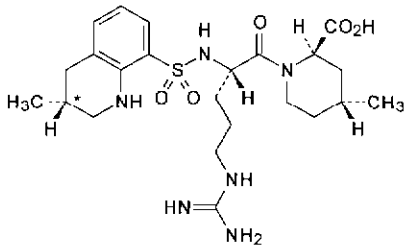
argatroban

acide (2*R*,4*R*)-4-méthyl-1-[(S)-N^2-[[(*RS*)-1,2,3,4-tetrahydro-3-méthyl-8-quinolyl]-sulfonyl]arginyl]pipecolique

argatroban

ácido (2*R*,4*R*)-4-metil-1-[(*S*)-N^2-[[(*RS*)-1,2,3,4-tetrahidro-3-metil-8-quinolil]-sulfonil]arginil]pipecólico

$CH_{23}H_{36}N_6O_5S$



and epimer at C*
et l'épimère en C*
y el epímero al C*

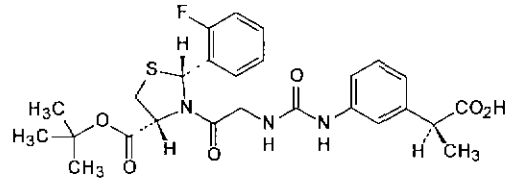
aseripidum

aseripide (2*R*,4*R*)-3-[*N*-[[3-[(*S*)-1-carboxyethyl]phenyl]carbamoyl]glycyl]-2-(*o*-fluorophenyl)-4-thiazolidinecarboxylicacid,4-*tert*-butylester

aséripide acide (2*S*)-2-[3-[3-[2-[(2*R*,4*R*)-4-[(1,1-diméthyléthoxy)carbonyl]-2-(2-fluorophényl)thiazolidin-3-yl]-2-oxoéthyl]uréido]phényl]propanoique

aseripida (2*R*,4*R*)-3-[*N*-[[3-[(*S*)-1-carboxietil]fenil]carbamoil]glicil]-2-(*o*-fluorofenil)-4-tiazolidinacarboxilato de *terc*-butilo

$C_{26}H_{30}FN_3O_6S$



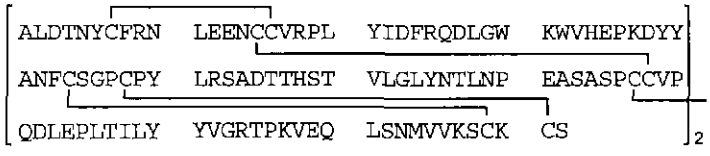
avoterminum

avotermin transforming growth factor β3 (human), dimer

avotermine facteur de croissance transformant β3 (humain)

avotermina factor β3 de crecimiento transformador(humano), dímero

$C_{1128}H_{1702}N_{296}O_{336}S_{20}$



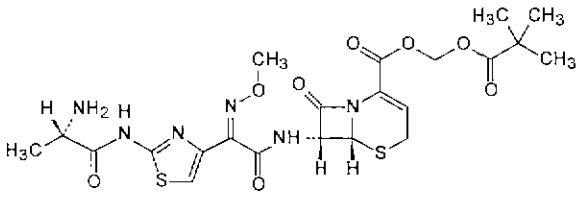
cedelizumabum

cedelizumab	immunoglobulin G 4 (human-mouse monoclonal OKTcdr4a complementary determining region-grafted γ-chain anti-human CD 4 antigen), disulfide with human-mouse monoclonal OKTcdr4a complementary determining region-grafted κ-chain, dimer
cédélizumab	immunoglobuline G 4 (chaîne γ de l'anticorps monoclonal de souris humanisé OKTcdr4a dirigé contre l'antigène CD 4 humain), dimère du disulfure avec la chaîne κ de l'anticorps monoclonal de souris humanisé OKTcdr4a
cedelizumab	inmunoglobulina G 4 (cadena γ del anticuerpo monoclonal humanizado de ratón OKTcdr4a, dirigido contra el antigeno CD4 humano), dimero del disulfuro con la cadena κ del anticuerpo monoclonal humanizado de ratón OKTcdr4a

ceftizoximum alapivoxilum

ceftizoxime alapivoxil	(+)-(pivaloyloxy)methyl (6R,7R)-7-[2-[2-(L-alanylamino)thiazol-4-yl]glyoxylamido]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylate 7^2-(*Z*)-(*O*)-methyloxime)
ceftizoxime alapivoxil	(+)-(6*R*,7*R*)-7-[[2-[2-[[(2*S*)-2-aminopropanoyl]amino]thiazol-4-yl]-2-[(*Z*)-méthoxyimino]acétyl]amino]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ène-2-carboxylate de [(2,2-diméthylpropanoyl)oxy]méthyle
ceftizoxima alapivoxilo	(6R,7R)-7-[2-[2-(L-alanilamino)tiazolin-4-il]glioxilamido]-8-oxo-5-tia-1-azabiciclo[4.2.0]oct-2-en-2-carboxilato de (+)-pivaloxi)metil, 7^2-(*Z*)-(*O*)-metiloxime)

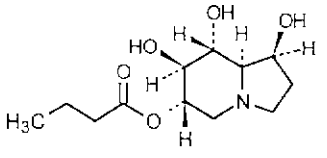
$C_{22}H_{28}N_6O_8S_2$



celgosivirum

celgosivir	(1*S*,6*S*,7*S*,8*R*,8a*R*)-octahydro-1,7,8-trihydroxy-6-indolizinyl butyrate
celgosivir	butanoate de (1*S*,6*S*,7*S*,8*R* 8a*R*)-1,7,8-trihydroxyoctahydroindolizin-6-yle
celgosivir	butirato de (1*S*,6*S*,7*S* 8*R*,8a*R*)-1,7,8-trihidroxioctahidro 6-indolizinilo

$C_{12}H_2{\cdot}NO_5$



clenoliximabum

clenoliximab — immunoglobulin G 4 (human-Macaca monoclonal CE9γ4PE γ4-chain anti-human antigen CD 4), disulfide with human-Macaca monoclonal CE9γ4PE κ-chain, dimer

clenoliximab — immunoglobuline G 4 (chaîne γ4 de l'anticorps monoclonal chimérique homme-Macaque CE9γ4PE dirigé contre l'antigène CD 4 humain), dimère du disulfure avec la chaîne κ de l'anticorps monoclonal chimérique homme-Macaque CE9γ4PE

clenoliximab — inmunoglobulina G 4 (cadena γ4 del anticuerpo monoclonal quimérico hombre-Macaca CE9γ4PE dirigido contra el antigeno antigen CD 4 humano), dimero del disulfuro con la cadena κ del anticuerpo monoclonal quimérico hombre-Macaca CE9γ4PE

colesevelamum

colesevelam — allylamine polymer with 1-chloro-2,3-epoxypropane, [6-(allylamino)hexyl]= trimethylammonium chloride and *N*-allyldecylamine

colésévélam — copolymère de prop-2-én-1-amine, de dodécan-1-amine et de *N,N,N*-triméthyl-6-(prop-2-énylamino)hexan-1-aminium réticulé à l'aide de 2-(chlorométhyl)oxirane (épichlorhydrine)

colesevelam — copolímero de prop-2-en-1-amino, de dodecan-1-amino y de *N,N,N*-trimetil-6-(prop-2-enilamino)hexan-1-aminio reticulado con 2-(clorometil)oxirano (epiclorhidrina)

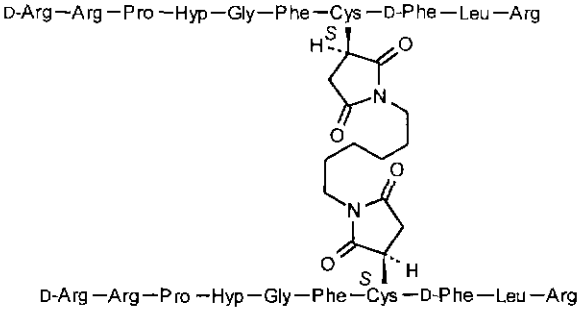
deltibantum

deltibant — D-*arginyl*-L-*arginyl*-L-*prolyl*-*trans*-4-*hydroxy*-L-*prolylglycyl*-L-*phenylalanyl*-L-cysteinyl-D-phenylalanyl-L-leucyl-L-arginine, 7,7'-bis(sulfide) with (2*R*,2'*S*)-*N,N* '-hexamethylenebis[2-mercaptosuccinimide]

deltibant — $S^{7},S^{7'}$-[hexane-1,6-diylbis[(3*R*,3'*S*)-2,5-dioxopyrrolidin-1,3-diyl)]bis[D-arginyl-L-arginyl-L-prolyl-[(4*R*)-4-hydroxy-L-prolyl]-glycyl-L-phénylalanyl-L-cystéinyl-L-phénylalanyl-L-leucyl-L-arginine]

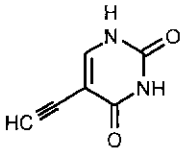
deltibant — D-arginil-L-arginil-L-prolil-*trans*-4-hidroxi-L-prolilglicil-L-fenilalanil-L-cisteinil-D-fenilalanil-L-leucil-L-arginina, 7,7'-bis(sulfuro) con (2*R*,2'*S*)-*N,N* '-hexametilenbis[2-mercaptosuccinimida]

$C_{128}H_{194}N_{40}O_{28}S_2$



eniluracilum

eniluracil	5-ethynyluracil
eniluracil	5-éthynylpyrimidine-2,4(1*H*,3*H*)-dione
eniluracilo	*5-etiniluracilo*
	$C_6H_4N_2O_2$

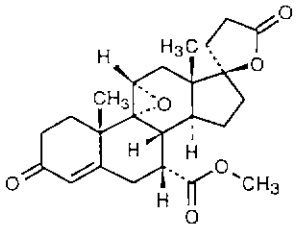


enlimomabum pegolum

enlimomab pegol	immunoglobulin G 2a (mouse monoclonal BI-RR-1 anti-human antigen CD 54), disulfide with mouse monoclonal BI-RR-1 light chain, dimer, reaction product with α-(2-carboxyethyl)-ω- methoxypoly(oxy-1,2-ethanediyl)
enlimomab pégol	*N, N',N'',N''', N''''*-pentakis[α-méthylpoly(oxyéthylène)-ω-(oxypropanoyl)]immunoglobuline G2a (anticorps monoclonal de souris BI-RR-1 dirigé contre l'antigène CD 54 humain), dimère du disulfure avec la chaîne légère de l'anticorps monoclonal de souris BI-RR-1
enlimomab pegol	inmunoglobulina G 2a (anticuerpo monoclonal de ratón BI-RR-1 dirigido contra el antigeno CD 54 humano), dimero del disulfuro con la cadena ligera del anticuerpo de ratón BI-RR-1, producto de reacción con α-(2-carboxietil)-*ω-metoxipoli(oxi-1,2-etanodiil)*

eplerenonum

eplerenone	9,11α-epoxy-17-hydroxy-3-oxo-17α-pregn-4-ene-7α,21-dicarboxylic acid, γ-lactone, methyl ester
éplérénone	(2'*R*)-9,11α-epoxy-3,5'-dioxo-4',5'-dihydrospiro[androst-4-éne-17, 2'(3*H*)-furane]-7α-carboxylate de méthyle
eplerenona	éster metílico de la γ-lactona del acido 9,11α-epoxi-17-hidroxi-3-oxo-17α-pregn-4-en-7α,21-dicarboxílico
	$C_{24}H_{30}O_6$



felvizumabum

felvizumab — immunoglobulin G 1 (human-mouse monoclonal, γ-chain anti-respiratory syncytial virus), disulfide with human-mouse monoclonal κ -chain, dimer

felvizumab — immunoglobuline G 1 (chaîne γ de l'anticorps monoclonal de souris humanisé dirigé contre le virus syncytial respiratoire), dimère du disulfure avec la chaîne κ de l'anticorps monoclonal de souris humanisé

felvizumab — inmunoglobulina G 1 (cadena γ del anticuerpo monoclonal humanizado de ratón, dirigido contra el virus sincitial respiratorio), dímero del disulfuro con la cadena κ del anticuerpo humanizado de ratón

follitropinum beta

follitropin beta — follicle-stimulating hormone, glycoform β
α-subunit:
chorionic gonadotropin (human α-subunit protein moiety reduced)
β-subunit:
follicle-stimulating hormone (human β-subunit protein moiety reduced)

follitropine bêta — hormone folliculo-stimulante, forme glycosylée β
sous-unité α:
gonadotropine chorionique (partie protéique réduite de la sous-unité α humaine)
sous-unité β:
hormone folliculo-stimulante (partie protéique réduite de la sous-unité β humaine)

folitropina beta — hormona estimulante del folículo, glicoforma β
subunidad α:
gonadotropina coriónica (fracción proteica reducida de la subunidad α humana)
subunidad β.
hormona estimulante del folículo (fracción proteica reducida de la subunidad β)

α. $C_{437}H_{682}N_{122}O_{134}S_{13}$

β: $C_{538}H_{833}N_{145}O_{171}S_{13}$

APDVQDCPEC TLQENPFFSQ PGAPILQCMG CCFSRAYPT
LRSKKTMLVQ KNVTSESTCC VAKSYNRVTV MGGFKVENH
ACHCSTCYYH KS
NSCELTNITI AIEKEECRFC ISINTTWCAG YCYTRDLVY
DPARPKIQKT CTFKELVYET VRVPGCAHHA DSLYTYPVA
QCHCGKCDSD STDCTVRGLG PSYCSFGEMK E

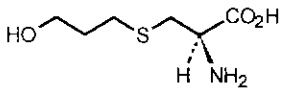
fudosteinum

fudosteine — (-)-3-[(3-hydroxypropyl)thio]-L-alanine

fudostéine — (-)-acide (2*R*)-2-amino-3-[(3-hydroxypropyl)sulfanyl]propanoïque

fudosteína — (-)-3-[(3-hidroxipropil)tio]-L-alanina

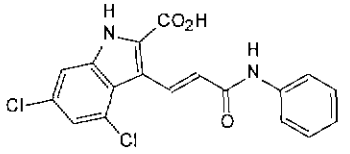
$C_6H_{13}NO_3S$



gavestinelum

gavestinel	4,6-dichloro-3-[(*E*)-2-(phenylcarbamoyl)vinyl]indole-2-carboxylic acid
gavestinel	acide 4,6-dichloro-3-[(*E*)-2-(phénylcarbamoyl)éthényl]-1*H*-indole-2-carboxylique
gavestinel	ácido 4,6-dicloro-3-[(E)-2-(fenilcarbamoil)vinil]indol-2-carboxílico

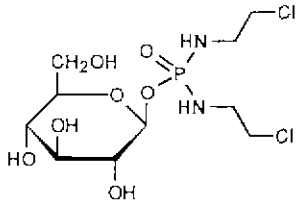
$C_{18}H_{12}Cl_2N_2O_3$



glufosfamidum

glufosfamide	β-D-glucopyranose 1-[*N,N'*-bis(2-chloroethyl)phosphorodiamidate]
glufosfamide	*N,N'*-bis(2-chloroéthyl)phosphorodiamidate de β-D-glucopyranosyle
glufosfamida	1-[*N,N'*-bis(2-cloroetil)fosforodiamidato] de β-D-glucopiranosa

$C_{10}H_{21}Cl_2N_2O_7P$



infliximabum

infliximab	immunoglobulin G (human-mouse monoclonal cA2 heavy chain anti-human tumor necrosis factor), disulfide with human-mouse monoclonal cA2 light chain, dimer
infliximab	immunoglobuline G (chaîne lourde de l'anticorps monoclonal chimérique homme-souris cA2 dirigé contre le facteur de nécrose tumorale humain), dimère du disulfure avec la chaîne légère de l'anticorps monoclonal chimérique homme-souris cA2
infliximab	inmunoglobulina G (cadena pesada del anticuerpo monoclonal quimérico hombre-ratón cA2 dirigido contra el factor de necrosis tumoral humano), dímero del disulfuro con la cadena ligera del anticuerpo monoclonal quimérico hombre-ratón cA2

interferonum alfacon-1

interferon alfacon-1

N-L-methionyl-22-L-arginine-76-L-alanine-78-L-aspartic acid-79-L-glutamic acid-86-L-tyrosine-90-L-tyrosine-156-L-threonine-157-L-asparagine-158-L-leucineinterferon α1 (human lymphoblast reduced)

interféron alfacon-1

N-L-méthionyl-[22-L-arginine-76-L-alanine-78-L-acide aspartique-79-L-acide glutamique-86-L-tyrosine-90-L-tyrosine-156-L-thréonine-157-L-asparagine-158-L-leucine]interféron α1 (lymphoblastique humain réduit)

interferón alfacón-1

N-L-metionil-22-L-arginina-76-L-alanina-78-ácido L-aspártico-79-ácido L-glutámico-86-L-tirosina-90-L-tirosina-156-L-treonina-157-L-asparagina-*158-L-leucinainterferón α1(linfoblástico humano reducido)*

$C_{870}H_{1366}N_{236}O_{259}S_9$

MCDLPQTHSLG NRRALILLAQ MRRISPFSCL KDRHDFGFPQ
EEFDGNQFQK AQAISVLHEM IQQTFNLFST KDSSAAWDES
LLEKFYTELY QQLNDLEACV IQEVGVEETP LMNVDSILAV
KKYFQRITLY LTEKKYSPCA WEVVRAEIMR SFSLSTNLQE
RLRRKE

lanepitantum

lanepitant

N-[(*R*)-2-indol-3-yl-1-[[*N*-(*o*-methoxybenzyl)acetamido] methyl]ethyl] [1,4'-*bipiperidine*]-1'-*acetamide*

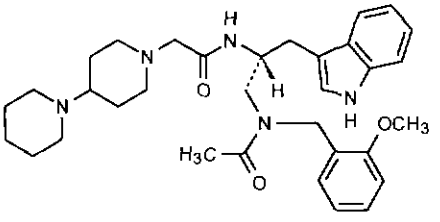
lanépitant

N-[(1*R*)-1-[[acétyl(2-méthoxybenzyl)amino]méthyl]-2-(1*H*-indol-3-yl)éthyl]-2-(1,4'-bipipéridin-1'-yl)acétamide

lanepitant

N-[(*R*)-2-indol-3-il-1-[[*N*-(*o*-metoxibencil)acetamido]metil]etil] [1,4'-bipiperidina]-1'-*acetamida*

$C_{33}H_{45}N_5O_3$



licostinelum

licostinel

6,7-dichloro-1,4-dihydro-5-nitro-2,3-quinoxalinedione

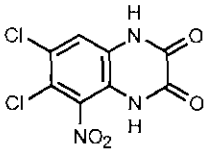
licostinel

6,7-dichloro-5-nitro-1,4-dihydroquinoxaline-2,3-dione

licostinel

6,7-dicloro-1,4-dihidro-5-nitro-2,3-quinoxalinadiona

$C_8H_3Cl_2N_3O_4$



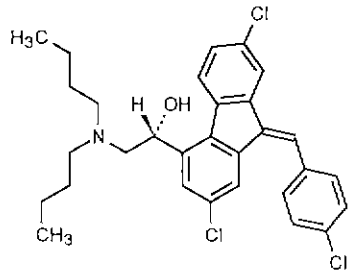
lumefantrinum

lumefantrine (±)-2,7-dichloro-9-[(*Z*)-*p*-chlorobenzylidene]-α[(dibutylamino)methyl]fluorene-4-methanol

luméfantrine (1*RS*)-2-(dibutylamino)-1-[(*Z*)-2,7-dichloro-9-(4-chlorobenzylidène)-9*H*-fluorén-4-yl]éthanol

lumefantrina (±)-2,7-dicloro-9-[(*Z*)-*p*-clorobencilideno]-α[(dibutilamino)metil]fluoreno-4-metanol

$C_{30}H_{32}Cl_3NO$



and enantiomer
et énantiomère
y enantiomero

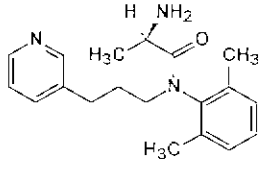
milacainidum

milacainide (-)-(*R*)-2-amino-*N*-[3-(3-pyridyl)propyl]-2',6'-propionoxylidide

milacaïnide (-)-(*R*)-2-amino-*N*-(2 6-diméthylphényl)-*N*-[3-(pyridin-3-yl)propyl]propanamide

milacainida (-)-(*R*)-2-amino-*N*-[3-(3-piridil)propil]-2',6'-propionoxilidida

$C_{19}H_{25}N_3O$



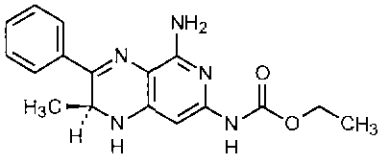
mivobulinum

mivobulin — ethyl (*S*)-5-amino-1,2-dihydro-2-methyl-3-phenylpyrido[3,4-*b*]pyrazine-7-carbamate

mivobuline — [(2*S*)-5-amino-2-méthyl-3-phényl-1,2-dihydropyrido[3,4-*b*]pyrazin-7-yl]carbamate d'éthyle

mivobulina — (*S*)-5-amino-1,2-dihidro-2-metil-3-fenilpirido [3,4-*b*]pirazina-7-carbamato de etilo

$C_{17}H_{19}N_5O_2$



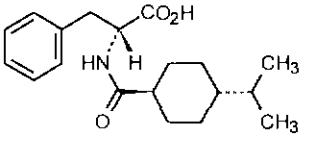
nateglinidum

nateglinide — (-)-*N*-[(*trans*-4-isopropylcyclohexyl)carbonyl]-D-phenylalanine

natéglinide — (-)-acide (2*R*)-2-[[[*trans*-4-(1-méthyléthyl)cyclohexyl]carbonyl]amino]-3-phénylpropanoïque

nateglinida — (-)-*N*-[(*trans*-4-isopropilciclohexil)carbonil]-D-fenilalanina

$C_{19}H_{27}NO_3$



nonacogum alfa

nonacog alfa — blood-coagulation factor IX (human), glycoform α

nonacog alfa — facteur IX de coagulation sanguine humain, glycoforme α

nonacog alfa — factor IX (humano) de la coagulación sanguínea, forma glucosilada α

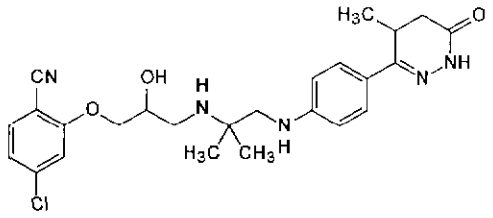
oberadilolum

oberadilol — (±)-4-chloro-2-[3-[[1,1-dimethyl-2-[*p*-(1,4,5,6-tetrahydro-4-methyl-6-oxo-3-pyridazinyl)anilino]ethyl]amino]-2-hydroxypropoxy]benzonitrile

obéradilol — 4-chloro-2-[3-[[1,1-diméthyl-2-[[4-(4-méthyl-6-oxo-1,4,5,6-tétrahydropyridazin-3-yl)phényl]amino]éthyl]amino]-2-hydroxypropoxy]benzonitrile

oberadilol — (±)-4-cloro-2-[3-[[1,1-dimetil-2-[*p*-(1,4,5,6-tetrahidro-4-metil-6-oxo-3-piridazinil)anilino]etil]amino]-2-hidroxipropoxi]benzonitrilo

$C_{25}H_{30}ClN_5O_3$



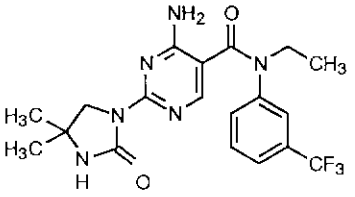
opanixilum

opanixil — 4-amino-2-(4,4-dimethyl-2-oxo-1-imidazolidinyl)-*N*-ethyl-α,α,α-trifluoro-5-pyrimidinecarboxy-*m*-toluidide

opanixil — 4-amino-2-(4,4-diméthyl-2-oxoimidazolidin-1-yl)-*N*-éthyl-*N*-[3-(trifluorométhyl)phényl]pyrimidin-5-carboxamide

opanixilo — 4-amino-2-(4,4-dimetil-2-oxo-1-imidazolidinil)-*N*-etil-α,α,α-trifluoro-5-pirimidinacarboxi-*m*-toluidida

$C_{19}H_{21}F_3N_6O_2$



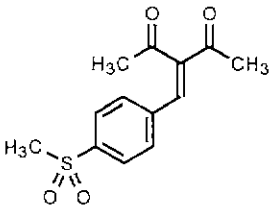
oraziponum

orazipone — 3-[*p*-(methylsulfonyl)benzylidene]-2 4-pentanedione

orazipone — 3-[4-(méthylsulfonyl)benzylidène]pentane-2,4-dione

orazipona — 3-[*p*-(metilsulfonil)bencilíden]-2,4-pentanodiona

$C_{13}H_{14}O_4S$



pegmusirudinum

pegmusirudin

L-valyl-L-valyl-L-tyrosyl-L-threonyl- L-α-aspartyl-L-cysteinyl-L-threonyl-L-α-glutamyl-L-serylglycyl-L-glutaminyl-L-asparaginyl-L-leucyl-L-cysteinyl-L-leucyl-L-cysteinyl-L-α-glutamylglycyl-L-seryl-L-asparaginyl-L-valyl-L-cysteinylglycyl-L-glutamylglycyl- L-asparaginyl-N^6-carboxy-L-lysyl-L-cysteinyl-L-isoleucyl-L-leucylglycyl-L-seryl-N^6-carboxy-L-lysylglycyl-L-α-glutamyl-L-arginyl-L-asparaginyl-L-glutaminyl-L-cysteinyl-L-valyl-L-threonylglycyl-L-α-glutamylglycyl-L-threonyl-L-prolyl-L-arginyl-L-prolyl-L-glutaminyl-*L-seryl-L-histidyl-L-asparaginyl-L-α-aspartylglycyl-L-α-aspartyl-L-phenylalanyl*-L-α-glutamyl-L-α-glutamyl-L-isoleucyl-L-prolyl-L-α-glutamyl-L-α-glutamyl-L-tyrosyl-L-leucyl-L-glutamine cyclic (6 →14), (16 →28), (22→ 39)-tris(disulfide), 27,33-diester with polyethylene glycol monoethyl ether

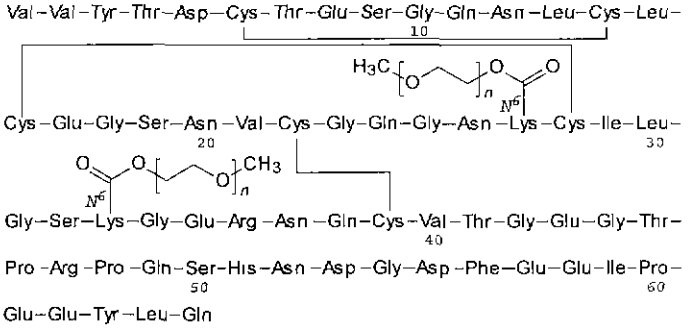
pegmusirudine

$N^{6\,27}$,$N^{6\,33}$-bis[α-méthylpoly(oxyéthylène)-ω-(oxycarbonyl)]-[33-L-lysine-36-L-arginine-47-L-arginine]-O^{63}-désulfohirudine (*hirudo medicinalis*)

pegmusirudina

L-valil-L-valil-L-tirosil-L-treonil- L-α-aspartil-L-cisteinil-L-treonil-L-α-glutamil-L-serilglicil-L-glutaminil-L-asparaginil-L-leucil-L-cisteinil-L-leucil-L-cisteinil-L-α-glutamilglicil-L-seril-L-asparaginil-L-valil-L-cisteinilglicil-L-glutamilglicil- L-asparaginil-N^6-carboxi-L-lisil-L-cisteinil-L-isoleucil-L-leucilglicil-L-seril-N^6-carboxi- L-lisilglicil-L-α-glutamil-L-arginil-L-asparaginil-L-glutaminil-L-cisteinil-L-valil-L-treonilglicil-L-α-glutamilglicil-L-treonil-L-prolil-L-arginil-L-prolil-L-glutaminil-L-seril-L-histidil-L-asparaginil-L-α-aspartilglicil-L-α-aspartil-L-fenilalanil-L-α-glutamil-L-α-glutamil-L-isoleucil-L-prolil-L-α-glutamil-L-α-glutamil-L-tirosil-L-leucil-L-glutamine tris(disulfuro) cíclico (6 →14), (16 →28), (22→ 39), 27,33-diester con polietilen glicol monoetil eter

$(C_2H_4O)_n\,(C_2H_4O)_n\,C_{302}H_{451}N_{85}O_{112}S_6$



pifonakinum

pifonakin

36-L-aspartic acid-141-L-serineinterleukin 1α (human clone p10A)

pifonakine

[36-acide L-aspartique-141-L-sérine]interleukine 1α (clone humain p10A)

pifonakina

36-L-ácido aspártico-141-L-serinainterleuquina 1α (clon humano p10A)

SAPFSFLSNV KYNFMRIIKY EFILNDALNQ SIIRADDQYL
TAAALHNLDE AVKFDMGAYK SSKDDAKITV ILRISKTQLY
VTAQDEDQPV LLKEMPEIPK TITGSETNLL FFWETHGTKN
YFTSVAHPNL FIATKQDYWV SLAGGPPSIT DFQILENQA

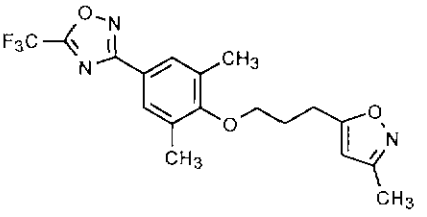
pleconarilum

pleconaril — 3-[4-[3-(3-methyl-5-isoxazolyl)propoxy]-3,5-xylyl]-5-(trifluoromethyl)-1,2,4-oxadizole

pléconaril — 3-[3,5-diméthyl-4-[3-(3-méthylisoxazol-5-yl)propoxy]phényl]-5-(trifluorométhyl)-1,2,4-oxadiazole

pleconarilo — 3-[4-[3-(3-metil-5-isoxazolil)propoxi]-3,5-xilil]-5-(trifluorometil)-1,2,4-oxadizol

$C_{18}H_{18}F_3N_3O_3$



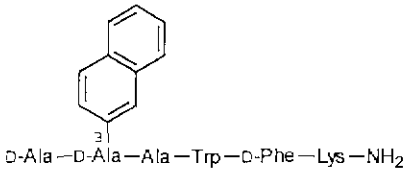
pralmorelinum

pralmorelin — D-alanyl-3-(2-naphthyl)-D-alanyl-L-alanyl-L-tryptophyl-D-phenylalanyl-L-lysinamide

pralmoréline — D-alanyl-[3-(naphtalén-2-yl)-D-alanyl]-L-alanyl-L-tryptophyl-D-phénylalanyl-L-lysinamide

pralmorelina — D-alanil-3-(2-naftil)-D-alanil-L-alanil-L-triptofil-D-fenilalanil-L-lisinamida

$C_{45}H_{55}N_9O_6$



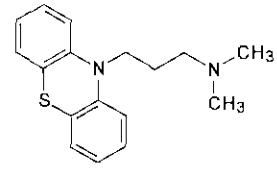
promazinum

promazine — 10-(3-dimethylaminopropyl)phenothiazine

promazine — (diméthylamino-3-propyl)-10-aza-1-phénothiazine

promazina — 10-(3-dimetilaminopropil)fenotiazina

$C_{17}H_{20}N_2S$



rituximabum

rituximab — immunoglobulin G 1 (human-mouse monoclonal IDEC-C2B8 γ1-chain anti-human antigen CD 20), disulfide with human-mouse monoclonal IDEC-C2B8 κ-chain, dimer

rituximab — immunoglobuline G1 (chaîne γ1 de l'anticorps monoclonal chimérique homme-souris IDEC-C2B8 dirigé contre l'antigène CD20 humain), dimère du disulfure avec la chaîne κ de l'anticorps monoclonal chimérique homme-souris IDEC-C2B8

rituximab — inmunoglobulina G 1 (cadena γ1 del anticuerpo monoclonal quimérico hombre-ratón IDEC-C2B8 dirigido contra el antigeno CD 20 humano), dimero del disulfuro con la cadena κ del anticuerpo monoclonal quimerico hombre-raton IDEC-C2B8

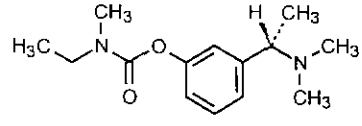
rivastigminum

rivastigmine — (-)-*m*-[(*S*)-1-(dimethylamino)ethyl]phenyl ethylmethylcarbamate

rivastigmine — (-)-éthylméthylcarbamate de 3-[(1*S*)-1-(diméthylamino)éthyl]phényle

rivastigmina — etilmetilcarbamato de (-)-*m*-[(*S*)-1-(dimetilamino)etil]fenilo

$C_{14}H_{22}N_2O_2$



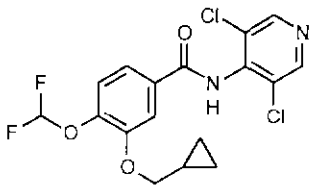
roflumilastum

roflumilast — 3-(cyclopropylmethoxy)-*N*-(3,5-dichloro-4-pyridyl)-4-(difluoromethoxy)=benzamide

roflumilast — 3-(cyclopropylméthoxy)-*N*-(3,5-dichloropyridin-4-yl)-4-(difluorométhoxy)=benzamide

roflumilast — 3-(ciclopropilmetoxi)-*N*-(3,5-dicloro-4-piridil)-4-(difluorometoxi)benzamida

$C_{17}H_{14}Cl_2F_2N_2O_3$



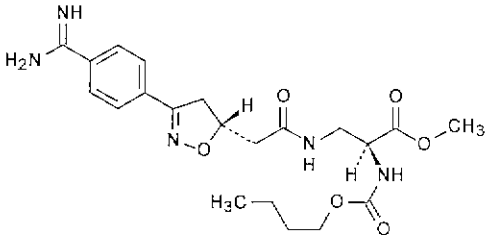
roxifibanum

roxifiban (2*S*)-3-[2-[(5*R*)-3-(*p*-amidinophenyl)-2-isoxazolin-5-yl] acetamido]-2-(carboxyamino)propionic acid, 2-butyl methyl ester

roxifiban (2*S*)-3-[[2-[(5*R*)-3-(4-carbamimidoylphényl)-4,5-dihydroisoxazol-5-yl]acétyl]amino]-2-[(butoxycarbonyl)amino]propanoate de méthyle

roxifibán 2-butil metil éster del ácido (2*S*)-3-[2-[(5*R*)-3-(*p*-amidinofenil)-2-isoxazolin-5-il]acetamido]-2-(carboxiamino)propiónico

$C_{21}H_{29}N_5O_6$



sevelamerum

sevelamer allylamine polymer with 1-chloro-2,3-epoxypropane

sévélamer copolymère de prop-2-én-1-amine et de 1,3-bis(prop-2-énylamino)propan-2-ol

sevelámero copolímero de prop-2-en-1-amino y de 1,3-bis(prop-2-enilamino)propan-2-ol

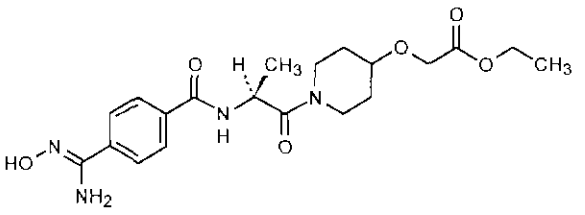
sibrafibanum

sibrafiban ethyl (*Z*)-[[1-[*N*-[(*p*-hydroxyamidino)benzoyl]-L-alanyl]-4-piperidyl]oxy] acetate

sibrafiban [[1-[(2*S*)-2-[[4-[(*Z*)-amino(hydroxyimino)méthyl]benzoyl]amino]propanoyl]-piperidin-4-yl]oxy]acétate d'éthyle

sibrafibán (*Z*)-[[1-[*N*-[(*p*-hidroxiamidino)benzoil]-L-alanil]-4-piperidil]oxi] acetato de etilo

$C_{20}H_{28}N_4O_6$



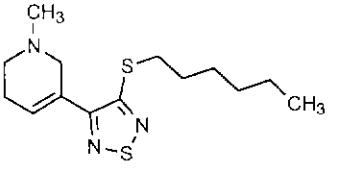
tazomelinum

tazomeline 3-[4-(hexylthio)-1,2,5-thiadiazol-3-yl]1,2,5,6-tetrahydro-1-methylpyridine

tazoméline 3-[4-(hexylsulfanyl)-1,2 5-thiadiazol-3-yl]-1-méthyl-1,2,5,6-tétrahydropyridine

tazomelina 3-[4-(hexiltio)-1,2,5-tiadiazol-3-il]1,2,5,6-tetrahidro-1-metilpiridina

$C_{14}H_{23}N_3S_2$



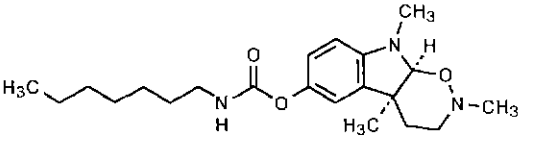
terestigminum

terestigmine (4a*S*,9a*S*)-2,3,4,4a,9,9a-hexahydro-2,4a,9-trimethyl-1,2-oxazino[6,5-*b*]indol-6-yl heptylcarbamate

térestigmine heptylcarbamate de (*4aS,9aS*)-*2,4a,9*-triméthyl-2,3,4.4*a*,9,9*a*-hexahydro-1,2-oxazino[6,5-*b*]indol-6-yle

terestigmina heptilcarbamato de (4a*S*,9a*S*)-2,3,4,4a,9,9a-hexahidro-2,4a,9-trimetil-1,2-oxazino[6,5-*b*]indol-6-ilo

$C_{21}H_{33}N_3O_3$



trecovirsenum

trecovirsen

P-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-P-thiocytidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thioadenylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-2'-deoxy-*P*-thioadenylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-2'-deoxy-*P*-thioguanylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-deoxycytosine

trécovirsen

P-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thioadénylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-2'-désoxy-*P*-thioadénylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-2'-désoxy-*P*-thioguanylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxy-*P*-thiocytidylyl-(5'→3')-*P*-thiothymidylyl-(5'→3')-2'-désoxycytosine

trecovirseno

P-tiotimidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-2'-desoxi-*P*-tioadenilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-2'-desoxi-*P*-tioadenilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-2'-desoxi-*P*-tioguanilil-(5'→3')-2'-desoxi-*P*-tiocitidilil-(5'→3')-*P*-tiotimidilil-(5'→3')-2'-desoxicitosina

$C_{237}H_{310}N_{72}O_{131}P_{24}S_{24}$

upenazimum

upenazime

3,3'-(tetramethylenedimino)bis[3-methyl-2-butanone] dioxime

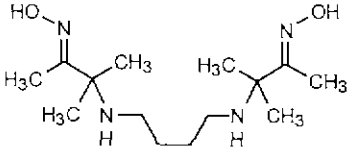
upénazime

3,3'-(butane-1,4-diyldimino)bis(3-méthylbutan-2-one) (*E*,*E*)-dioxime

upenazima

3,3'-(tetrametilendimino)bis[3-metil-2-butanona] dioxima

$C_{14}H_{30}N_4O_2$



urokinasum alfa

urokinase alfa — urokinase (enzyme-activating) (human clone pA3/pD2/pF1 high-molecular-weight isoenzyme protein moiety)

urokinase alfa — activateur du plasminogène (partie protéique de l'isoenzyme de masse moléculaire élevée fournie par le clone humain pA3/pD2/pF1)

urokinasa alfa — uroquinasa, activador del plasminógeno (fracción proteica de la isoenzima de masa molecular elevada producida por el clon humano pA3/pD2/pF1)

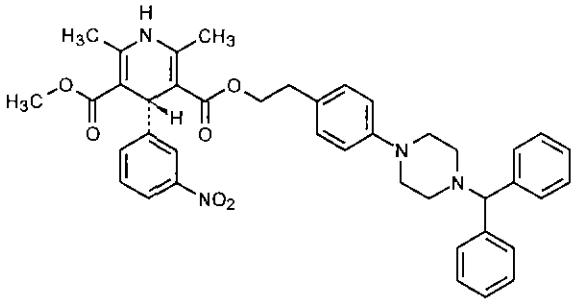
vatanidipinum

vatanidipine — (±)-*p*-[4-(diphenylmethyl)-1-piperazinyl]phenethyl methyl 1,4-dihydro-2,6-dimethyl-4-(*m*-nitrophenyl)-3,5-pyridinedicarboxylate

vatanidipine — (4*RS*)-2,6-diméthyl-4-(3-nitrophényl)-1,4-dihydropyridine-3,5-dicarboxylate de 2-[4-[4-(diphénylméthyl)pipérazin-1-yl]phényl]éthyle et de méthyle

vatanidipino — 1,4-dihidro-2,6-dimetil-4-(*m*-nitrofenil)-3,5-piridinadicarboxilato de (±)-*p*-[4-(difenilmetil)-1-piperazinil]fenetilo y metilo

$C_{41}H_{42}N_4O_6$



and enantiomer
et l'énantiomère
y enantiómero

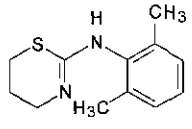
xylazinum

xylazine — 5,6-dihydro-2-(2,6-xylidino)-4*H*-1,3-thiazine

xylazine — 2-(2,6-xylidino)-5,6-dihydro-4*H*-1,3-thiazine

xylazina — 2-(2,6-xilidino)-5,6-dihidro-4*H*-1,3-tiazina

$C_{12}H_{16}N_2S$



AMENDMENTS TO PREVIOUS LISTS
MODIFICATIONS APPORTÉES AUX LISTES ANTÉRIEURES
MODIFICACIONES A LAS LISTAS ANTERIORES

Recommended International Nonproprietary Names (Rec. INN): List 31
(WHO Drug Information, Vol. 5, No. 3, 1991)

p. 4 **dalteparinum natricum**
dalteparin sodium

replace the definition by the following.
Sodium salt of a low molecular mass heparin that is obtained by nitrous acid depolymerization of heparin from porcine intestinal mucosa; the majority of the components have a 2-*O*-sulfo-α-L-idopyranosuronic acid structure at the non-reducing end and a 6-*O*-sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain, the mass-average molecular mass ranges between 5600 and 6400 with a characteristic value of about 6000; the degree of sulfatation is 2.0 to 2.5 per disaccharidic unit

p. 10 **parnaparinum natricum**
parnaparin sodium

replace the definition by the following.
Sodium salt of a low molecular mass heparin that is obtained by radical-catalyzed depolymerization, with hydrogen peroxide and with a cupric salt, of heparin from bovine or pork intestinal mucosa; the majority of the components have a 2-*O*-sulfo-α-L-idopyranosuronic acid structure at the non-reducing end and a 2-*N*,6-*O*-disulfo-D-glucosamine structure at the reducing end of their chain; the mass-average molecular mass ranges between 4000 and 6000 with a characteristic value of about 5000, the degree of sulfatation is 2.0 to 2.6 per disaccharidic unit

p. 11 **reviparinum natricum**
reviparin sodium

replace the definition by the following
Sodium salt of a low molecular mass heparin that is obtained by nitrous acid depolymerization of heparin from porcine intestinal mucosa, the majority of the components have a 2-*O*-sulfo-α-L-idopyranosuronic acid structure at the non-reducing end and a 6-*O*-sulfo-2,5-anhydro-D-mannitol structure at the reducing end of their chain: the mass-average molecular mass ranges between 3150 and 5150, with a characteristic value of about 4150; the degree of sulfatation is about 2.1 per disaccharidic unit.

p 16 **enoxaparinum natricum**

enoxaparin sodium — *replace the definition by the following:*

Sodium salt of a low molecular mass heparin that is obtained by alkaline depolymerization of the benzyl ester derivative of heparin from porcine intestinal mucosa, the majority of the components have a 2-*O*-sulfo-4-desoxy-4-α-L-*threo*-hex-4-enopyranosuronic acid structure at the non-reducing end of their chain, the mass-average molecular mass ranges between 3500 and 5500 with a characteristic value of about 4500, the degree of sulfatation is about 2 per disaccharidic unit.

Recommended International Nonproprietary Names (Rec. INN): List 32
(WHO Drug Information, Vol. 6, No. 3, 1992)

p 10 **tinzaparinum natricum**

tinzaparin sodium — *replace the definition by the following:*

Sodium salt of a low molecular mass heparin that is obtained by controlled enzymatic depolymerization of heparin from porcine intestinal mucosa using heparinase from *Flavobacterium heparinum*, the majority of the components have a 2-*O*-sulfo-4-desoxy-4-α-L-*threo*-hex-4-enopyranosuronic acid structure at the non-reducing end and a 2-*N*,6-*O*-disulfo-D-glucosamine structure at the reducing end of their chain; the mass-average molecular mass ranges between 5500 and 7500 with a characteristic value of about 6500; the degree of sulfatation is 1.8 to 2.5 per disaccharidic unit

Recommended International Nonproprietary Names (Rec. INN): List 35
Dénominations communes internationales recommendées (DCI Rec.): Liste 35
Denominaciones Comunes Internacionales Recomendadas (DCI Rec.): Lista 35
(WHO Drug Information, Vol. 9, No. 3, 1995)

p. 14 **itamelinum**

itameline — *replace the chemical name by the following:*

(E)-*p*-chlorophenyl 3-formyl-5,6-dihydro-1(2*H*)-pyridinecarboxylate, O-methyloxime

itamelina — *sustituyase el nombre quimico por lo siguiente:*

3-formil-5,6-dihidro-1(2*H*)-piridinacarboxilato de *(E)*-*p*-clorofenilo, O-metiloxima

p 11 **eptacogum alfa (activatum)**

eptacog alfa (activated)
eptacog alfa (activé)
eptacog alfa (activado) — *replace the molecular formula by the following:*
remplacer la formule brute par.
sustituyase la fórmula empírica por.

$C_{1982}H_{3054}N_{560}O_{618}S_{28}$

Recommended International Nonproprietary Names (Rec. INN): List 36

Dénominations communes internationales recommendées (DCI Rec.): Liste 36

Denominaciones Comunes Internacionales Recomendadas (DCI Rec.): Lista 36

(WHO Drug Information, Vol. 10, No. 3, 1996)

p. 148 **igovomabum**

igovomab	*replace the description by the following:* immunoglobulin G 1 (mouse monoclonal OC125 $F(ab')_2$ $F(ab')_2$fragment anti-human ovarian cancer antigen CA 125), disulfide with mouse monoclonal OC125 $F(ab')_2$ light chain
igovomab	*remplacer la description par la suivante:* fragment $F(ab')_2$ de l'anticorps monoclonal OC 125 $F(ab')_2$ dirigé contre l'antigène CA 125 associé à certaines tumeurs ovariennes
igovomab	*sustituyase la descripción por la siguiente:* fragmento $F(ab')_2$ del anticuerpo monoclonal OC 125 $F(ab')_2$ anti-antígeno CA 125 asociado a ciertos tumores ováricos

p. 160 **thymalfasinum**

thymalfasin	*replace the molecular formula by the following:*
thymalfasine	*remplacer la formule brute par la suivante:*
timalfasina	*sustituyase la fórmula empírica por:*

$C_{129}H_{215}N_{33}O_{55}$

p. 154 **palonosetronum**

palonosetron	*replace the chemical name and the molecular formula by the following.* (3aS)-2,3,3a,4,5,6-hexahydro-2-[(3*S*)-3-quinuclidinyl]-1*H*-benz[*de*]isoquinolin-1-one
palonosétron	*remplacer le nom chimique et la formule brute par :* (3a*S*)-2-[(3*S*)-1-azabicyclo[2.2.2]oct-3-yl]-2,3,3a,4,5,6-hexahydro-1*H*-benzo[*de*]isoquinoléin-1-one
palonosetrón	*sustituyanse el nombre químico y la fórmula empírica por* (3aS)-2,3,3a,4,5,6-tetrahidro-2-[(3*S*)-3-quinuclidinil]-1*H*-benz[*de*]isoquinolin-1-ona

$C_{19}H_{24}N_2O$

Dénominations communes internationales recommendées (DCI Rec.): Liste 31
(Informations pharmaceutiques OMS, Vol. 5, No. 3, 1991)

p. 5 **dalteparinum natricum**
daltéparine sodique

remplacer la descnption par
Sel sodique d'une héparine de basse masse moléculaire obtenue par depolymerisation, au moyen d'acide nitreux, d'heparine de muqueuse intestinale de porc, la majorité des composants de la daltéparine sodique possèdent une structure acide 2-*O*-sulfo-α-L-idopyranosuronique à l'extrémité non reductrice de leur chaîne et une structure 6-*O*-sulfo-2,5-anhydro-D-mannitol à l'extrémité réductrice de leur chaîne, la masse moleculaire relative moyenne est de 5600 à 6400, avec une valeur caractéristique de 6000 environ; le degré de sulfatation est de 2 0 à 2 5 par unité disaccharidique.

p 10 **parnaparinum natricum**
parnaparine sodique

remplacer la descnption par
Sel sodique d'une héparine de basse masse moléculaire obtenue par dépolymerisation, à catalyse radicalaire , au moyen de peroxyde d'hydrogene et d'un sel de cuivre, d'héparine de muqueuse intestinale de boeuf ou de porc, la majorité des composants de la parnaparine sodique possèdent une structure acide 2-*O*-sulfo-α-L-idopyranosuronique à l'extrémité non réductrice de leur chaîne et une structure 2*N*,6-*N*,6-*O*-disulfo-D-glucosamine à l'extremité réductrice de leur chaîne; la masse moléculaire relative moyenne est de 4000 a 6000, avec une valeur caractéristique de 5000 environ, le degré de sulfatation est de 2.0 à 2.6 par unité disaccharidique

p 17 **enoxaparinum natricum**
énoxaparine sodique

remplacer la description par
Sel sodique d'une héparine de basse masse moléculaire obtenue par dépolymerisation alcaline de l'ester benzylique d'héparine de muqueuse intestinale de porc; la majorité des composants de l'enoxaparine sodique possèdent une structure acide 2-*O*-sulfo-4-désoxy-4-α-L-*thréo*-hex-4-énopyranosuronique à l'extrémité non réductrice de leur chaîne, la masse moléculaire relative moyenne est de 3500 à 5500, avec une valeur caractéristiquede 4500 environ;le degré de sulfatation est de 2 par unité disaccharidique.

p. 12 **reviparinum natricum**
réviparine sodique

remplacer la description suivante
Sel sodique d'une héparine de basse masse moléculaire obtenue par dépolymerisation, au moyen d'acide nitreux, d'héparine de muqueuse intestinale de porc; la majorité des composants de la réviparine sodique possèdent une structure acide 2-*O*-sulfo-α-L-idopyranosuronique à l'extrémité non réductrice de leur chaîne et une structure 6-*O*-sulfo-2,5-anhydro-D-mannitol à l'extrémité réductrice de leur chaîne, la masse moléculaire relative moyenne est de 3150 à 5150, avec une valeur caractéristique de 4150 environ, le degré de sulfatation est 2 1 environ par unité disaccharidique

Dénominations communes internationales recommendées (DCI Rec.): Liste 32
(Informations pharmaceutiques OMS, Vol. 6, No. 3, 1992)

p. 10 **tinzaparinum natricum**
tinzaparine sodique

remplacer la description par:
Sel sodique d'une héparine de basse masse moléculaire obtenue par dépolymerisation enzymatique controlée, au moyen de l'héparinase de *Flavobacterium heparinum*, d'héparine de muqueuse intestinale de porc; la majorité des composants de la tinzaparine sodique possèdent une structure acide 2-*O*-sulfo-4-désoxy-4-α-L-*thréo*-hex-4-énopyranosuronique à l'extrémité non réductrice de leur chaîne et une structure 6-*N*,6-*O*-disulfo-D-glucosamine à l'extrémité réductrice de leur chaîne; la masse moléculaire relative moyenne est de 5500 à 7500, avec une valeur caractéristique de 6500 environ: le degré de sulfatation est de 1.8 à 2.5 par unité disaccharidique

Denominaciones Comunes Internacionales Recomendadas (DCI Rec.): Lista 31
(Información Farmacéutica, OMS, Vol. 5, No. 3, 1991)

p. 4 **dalteparinum natricum**
dalteparina sódica

sustituyase la descripción por la siguiente:
Sal sódica de una heparina de baja masa molecular obtenida por despolimerización con ácido nitroso de la heparina de la mucosa intestinal de cerdo, la mayoria de los componentes tienen una estructura de ácido 2-*O*-sulfo-α-L-idopiranosurónico en el extremo no reductor y una estructura de 6-*O*-sulfo-2,5-anhidro-D-mannitol en el extremo reductor de la cadena, la masa molecular relativa media es de 5600 a 6400, con un valor caracteristico de 6000 aproximadamente; el grado de sulfatacion es de 2 0 a 2 5 por unidad de disacárido.

p 10 **parnaparinum natricum**
parnaparina sódica

sustituyase la descripción por la siguiente:
Sal sódica de una heparina de baja masa molecular obtenida por despolimerización con peróxido de hidrógeno y un sal de cobre de la heparina de la mucosa intestinal de buey o de cerdo, la mayoria de los componentes tienen una estructura de ácido 2-*O*-sulfo-α-L-idopiranosuronico en el extremo no reductor y una estructura de 6-*O*-6-*N*-disulfo-D-glucosamina en el extremo reductor de la cadena, la masa molecular relativa media es de 4000 a 6000, con un valor caracteristico de 5000 aproximadamente: el grado de sulfatación es de 2.0 a 2 6 por unidad de disacarido.

p. 16 **enoxaparinnum natricum**
enoxaparina sódica

sustituyase la descripción por la siguiente
Sal sódica de una heparina de baja masa molecular obtenida por despolimerización alcalina del éster bencílico de la heparina de la mucosa intestinal de cerdo, la mayoría de los componentes tienen una estructura de ácido 2-*O*-sulfo-4-desoxi-4-α-L-*treo*-hex-4-enopiranosurónico en el extremo no reductor en el extremo reductor de la cadena; la masa molecular relativa media es de 3500 a 5500, con un valor característico de 4500 aproximadamente, el grado de sulfatación es de 2 por unidad de disacárido.

p 11 **reviparinum natricum**
reviparina sódica

sustituyase la descripción por la siguiente
Sal sódica de una heparina de baja masa molecular obtenida por despolimerisación con ácido nítrico de la heparina de la mucosa intestinal del cerdo; la mayoría de los compuestos tienen una estructura de ácido 2-O-sulfo-α-L-idopiranosurónico en el extremo no reductor y una estructura de 6-O-sulfo-2,5-anhidro-D-manitol en el extremo reductor de la cadena, la masa molecular relativa media está entre 3150 y 5150, un valor característico de 4150 aproximadamente, el grado de sulfatación es de 2.1 por unidad de disacárido.

Denominaciones Comunes Internacionales Recomendadas (DCI Rec.): Lista 32
(Información Farmacéutica, OMS, Vol. 6, No. 3, 1992)

p. 9 **tinzaparinum natricum**
tinzaparina sódica

sustituyase la descripción por la siguiente
Sal sódica de una heparina de baja masa molecular obtenida por despolimerización enzimatica controlada con heparinasa de *Flavobacterium heparinum* de la heparina de la mucosa intestinal de cerdo; la mayoría de los componentes tienen una estructura de ácido 2-*O*-sulfo-4-desoxy-4-α-L-*treo*-hex-4-enopiranosurónico en el extremo no reductor y una estructura de 6-*O*-6-*N*-disulfo-D-glucosamina en el extremo reductor de la cadena, la masa molecular relativa media es de 5500 a 7500, con un valor característico de 6500 aproximadamente; el grado de sulfatación es de 1.8 a 2 5 por unidad de disacárido

Proposed International Nonproprietary Names (Rec. INN): List 35
Dénominations communes internationales proposées (DCI Rec.): Liste 35
Denominaciones Comunes Internacionales Propuestas (DCI Rec.): Lista 35
(WHO Drug Information, Vol. 9, No. 3, 1995)

p 25 **teverelixum**
teverelix

replace the chemical name by the following:
N-acetyl-3-(2-naphthyl)-D-alanyl-*p*-chloro-D-phenylalanyl-3-(3-pyridyl)-D-alanyl-L-seryl-L-tyrosyl-N^6-carbamoyl-D-lysyl-L-leucyl-N^6-isopropyl-L-lysyl-L-prolyl-D-alaninamide

tévérélix	*remplacer le nom chimique par* [*N*-acétyl-3-(naphtalén-2-yl)-D-alanyl]-(4-chloro-D-phénylalanyl)-[3-(pyridin-3-yl)-D-alanyl]-L-séryl-L-tyrosyl-[N^6-(carbamoyl)-D-lysyl]-L-leucyl-[N^6-(1-méthyléthyl)-L-lysyl]-L-prolyl-D-alaninamide
teverelix	*sustituyase el nombre químico por* [*N*-acetil-3-(naftalen-2-il)-D-alanil]-(4-cloro-D-fenilalanil)-[3-(piridin-3-il)-D-alanil]-L-seril-L-tirosil-[N^6-(carbamoil)-D-lisil]-L-leucil-[N^6-(1-metiletil)-L-lisil]-L-prolil-D-alaninamida

Proposed International Nonproprietary Names (Rec. INN): List 38
Dénominations communes internationales proposées (DCI Rec.): Liste 38
Denominaciones Comunes Internacionales Propuestas (DCI Rec.): Liste 38
(WHO Drug Information, Vol. 11, No. 3, 1997)

p 162 **bimoclomolum**

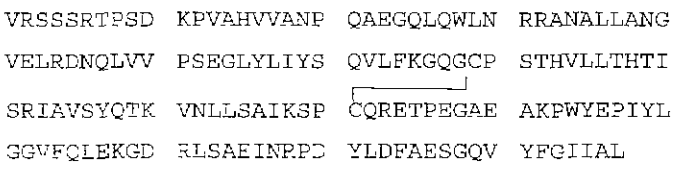
bimoclomol	*replace the chemical name by the following* (±)-*N*-(2-hydroxy-3-piperidinopropoxy)nicotinimidoyl chloride

p 175 **opratonii iodidum**

opratonium iodide	*replace the chemical name by the following:* trimethyl[3-(10-undecenamido)propyl]ammonium iodide
ioduro de opratonio	*sustituyase el nombre químico por lo siguiente:* ioduro de trimetil[3-(10-undecenamido)propil]amonio

p 178 **tasonerminum**

tasonermin	*replace the graphic formula by the following.*
tasonermine	*remplacer la formule développée par la suivante:*
tasonermina	*sustituyase la fórmula desarrollada por la siguiente.*



Procedure and Guiding Principles / Procédure et Directives / Procedimientos y principios generales

The text of the *Procedures for the Selection of Recommended International Nonproprietary Names for Pharmaceutical Substances* and *General Principles for Guidance in Devising International Nonproprietary Names for Pharmaceutical Substances* will be reproduced in uneven numbers of proposed INN lists only

Les textes de la *Procédure à suivre en vue du choix de dénominations communes internationales recommandées pour les substances pharmaceutiques* et des *Directives générales pour la formation de dénominations communes internationales applicables aux substances pharmaceutiques* ont été publiés avec la liste 77 des DCI proposées et seront, à nouveau, publiés avec la prochaine liste.

El texto de los *Procedimientos de selección de denominaciones comunes internacionales recomendadas para las sus-tancias farmacéuticas* y de los *Principios generales de orientación para formar denominaciones comunes internacio-nales para sustancias farmacéuticas* aparece solamente en los números impares de las listas de DCI propuestas.