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THE INTERAGENCY LIST  
OF ESSENTIAL MEDICINES  
FOR REPRODUCTIVE HEALTH

2006



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WHO/RHR/2006.1

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## Background

Reproductive health medicines are essential to the provision of quality reproductive health services. Rational selection is a vital component to ensure improved access to these medicines, followed by efficient procurement, logistic systems and rational use, which are equally important. Essential medicines for reproductive health include contraceptives, medicines for prevention and treatment of sexually transmitted infections and HIV/AIDS, and medicines to ensure healthy pregnancy and delivery.

In 2002, UNFPA and WHO jointly published the draft UNFPA/WHO Essential Drugs and Other Commodities for Reproductive Health Services List. This joint publication was the catalyst for the development of an interagency list of essential medicines for reproductive health. In the same year a study was started to compare the existing essential medicines lists of the various UN agencies, including (1) the 2002 draft UNFPA/WHO list, (2) the Interagency UNFPA/UNAIDS/WHO Reproductive Health Medicines and Commodities List and (3) the 13<sup>th</sup> WHO Model List of Essential Medicines of 2003. This study found a certain lack of consistency between various United Nations agencies on essential medicines for reproductive health, and identified 36 "discrepancy medicines" which figured on one list but not on another.

Since that time intensive discussions and consultations have taken place in order to realign the selection of essential medicines for reproductive health. The basic objective has been to ensure that all reproductive health medicines on the interagency list are also part of the WHO Model List of Essential Medicines. In other words, the interagency list will be a subset of the Model List.

### **The Interagency List of Essential Medicines for Reproductive Health**

This revised Interagency List of Essential Medicines for Reproductive Health presents the current international consensus on rational selection of essential reproductive health medicines. The list is intended to support decisions regarding the production, quality assurance, national procurement and reimbursement schemes of these medicines.

### **Development process**

The Interagency List of Essential Medicines for Reproductive Health has been developed by WHO in collaboration with major international and nongovernmental organizations active in the field of reproductive health. In 2004 meetings were held with these organizations to discuss the discrepancy medicines. During these consultations decisions were taken, based on evidence-based reviews, to either (1) delete certain medicines from all reproductive health medicines lists or (2) commission applications to add them to the 14<sup>th</sup> WHO Model List of Essential Medicines.

In March 2005, the WHO Expert Committee on the Selection and Use of Essential Medicines made final decisions to include or reject proposals for a number of new reproductive health medicines for the 14<sup>th</sup> WHO Model List of Essential Medicines. The next opportunity to modify the interagency list will be after the 2007 meeting of this WHO Expert Committee. Annex 1 presents more detailed information on the recent changes in the list.



The Interagency List of Essential Medicines for Reproductive Health is presented in two formats: (1) the traditional format used in previous lists, which presents medicines in clinical groups (which implies that some medicines are listed more than once); and (2) by therapeutic class as in the WHO Model List, but including only the numbered sections of the Model List in which reproductive health medicines are mentioned.

## Next steps: request for comments and suggestions

The WHO Department of Medicines Policy and Standards and the Department of Reproductive Health and Research together with UNFPA and other stakeholders intend to update the Interagency List of Essential Medicines for Reproductive Health every two years, with the next update due in 2007. Meanwhile, any comments or suggestions regarding the list can be addressed to the Secretary of the WHO Expert Committee on the Selection and Use of Essential Medicines, Department of Medicines Policy and Standards, World Health Organization, 20 Avenue Appia, CH-1211 Geneva 27, Switzerland.

## Additional references

World Health Organization (WHO) Medicines web site:

<http://www.who.int/medicines/>

WHO Reproductive Health web site: <http://www.who.int/reproductive-health/>

WHO Model Formulary.

Available at:

<http://mednet3.who.int/EMLib/ModelFormulary/modelFormulary.asp>

WHO Reproductive Health Library.

Available at: <http://www.who.int/reproductive-health/rhl/index.html>

Laing R, Waning B, Gray A, Ford N, 't Hoen E. Twenty-five years of the WHO essential medicines lists: progress and challenges. *Lancet* 2003;361:1723-1729.

*Interagency guidelines for drug donations*. Geneva: World Health Organization; 1999.

Available at: <http://www.who.int/medicines/publications>

*The selection of essential medicines*. WHO Policy Perspectives on Medicines, No.4.

Geneva: World Health Organization; 2002.

Available at: <http://www.who.int/medicines/publications>

*Reproductive health strategy*. Geneva: World Health Organization; 2004.

Available at: <http://www.who.int/reproductive-health/strategy.htm/>

*The world health report 2005: Investing in maternal and newborn health*. Geneva: World Health Organization; 2005.

Available at: [http://www.who.int/making\\_pregnancy\\_safer/en/](http://www.who.int/making_pregnancy_safer/en/)

## Format 1

### Explanation

The Interagency List of Essential Medicines for Reproductive Health is first presented in the format used in previous reproductive health lists - by clinical groups, with certain medicines repeated in different groups. Relevant standard treatment guidelines developed by the WHO Department of Reproductive Health and Research are included for each clinical group. Information regarding the WHO Model List of Essential Medicines' therapeutic categories are included for each medicine.

This list presents the minimum medicine needs for a basic health care system, listing the most efficacious, safe and cost-effective medicines for priority conditions. Priority conditions are selected on the basis of current and estimated future public health relevance, and potential for safe and cost-effective treatment. Complementary medicines (indicated with a "c" in the first column of the table) are also listed; these medicines need specialized diagnostic or monitoring facilities, and/or specialist medical care, and/or specialist training. In case of doubt, medicines may also be listed as complementary on the basis of consistently higher costs or less attractive cost-effectiveness in a variety of settings.

When the strength of a medicine 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".



Medicine	Dosage	Therapeutic category (14th WHO Model List)	
<b>Maternal and Neonatal Health</b>			
1. Managing complications in pregnancy and childbirth: a guide for midwives and doctors. Geneva: World Health Organization; 2000. <a href="http://www.who.int/reproductive-health/impac/index.html">http://www.who.int/reproductive-health/impac/index.html</a>			
2. Pregnancy, childbirth, postpartum and newborn care: A guide for essential practice. Geneva: World Health Organization; 2003. <a href="http://www.who.int/reproductive-health/publications/pcpnc/index.html">http://www.who.int/reproductive-health/publications/pcpnc/index.html</a>			
3. Managing new born problems: A guide for doctors, nurses, and midwives. Geneva: World Health Organization; 2003. <a href="http://www.who.int/reproductive-health/publications/mnp/index.html">http://www.who.int/reproductive-health/publications/mnp/index.html</a>			
4. The WHO Reproductive Health Library; <a href="http://www.who.int/reproductive-health/rhl/index.html">http://www.who.int/reproductive-health/rhl/index.html</a>			
5. Additional information: <a href="http://www.who.int/reproductive-health/">http://www.who.int/reproductive-health/</a>			
<b>Anaesthetics, general</b>			
	halothane	inhalation	1.1
	ketamine	injection, 50 mg (as hydrochloride)/ml in 10-ml vial	1.1
	nitrous oxide	inhalation	1.1
	oxygen	inhalation (medicinal gas)	1.1
	thiopental	powder for injection, 0.5 g, 1.0 g (sodium salt) in ampoule	1.1
	atropine	injection, 1 mg (sulfate) in 1-ml ampoule	1.3
	suxamethonium chloride	injection, 50 mg (chloride)/ml in 2-ml ampoule; powder for injection (chloride), in vial	20
<b>Anaesthetics, local</b>			
	lidocaine	injection, 1%, 2% (hydrochloride) 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)	1.2
	lidocaine + epinephrine (adrenaline)	injection, 1%, 2% (hydrochloride) + epinephrine 1:200 000 in vial; dental cartridge 2% (hydrochloride) + epinephrine 1:80 000	1.2
c	ephedrine	injection, 30 mg (hydrochloride)/ml in 1-ml ampoule (for use in spinal anaesthesia during delivery, to prevent hypotension)	1.2
<b>Analgesics</b>			
<b>Opioid</b>			
	morphine	injection, 10 mg in 1-ml ampoule (sulfate or hydrochloride); oral solution, 10 mg (hydrochloride or sulfate)/5-ml; tablet, 10 mg (sulfate)	2.2
<b>Non-opioid</b>			
	paracetamol*	tablet, 100-500 mg; suppository, 100 mg; syrup, 125 mg/5ml * not recommended for anti-inflammatory use due to lack of proven benefit to that effect	2.1
	acetylsalicylic acid	tablet, 100-500 mg; suppository, 50-150 mg	2.1
<b>Antianaemia</b>			
	ferrous salt	tablet, equivalent to 60 mg iron; oral solution equivalent to 25 mg iron (as sulfate)/ml	10.1
	folic acid	tablet 1 mg, 5 mg	10.1
	ferrous salt + folic acid	tablet equivalent to 60 mg iron + 400 micrograms folic acid (nutritional supplement for use during pregnancy)	10.1

Medicine	Dosage	Therapeutic category (14th EML)	
<b>Antibacterials</b>			
amoxicillin	capsule or tablet, 250 mg, 500 mg (anhydrous); powder for oral suspension, 125 mg (anhydrous)/5 ml	6.2.1	
ampicillin	powder for injection, 500 mg, 1 g (as sodium salt) in vial	6.2.1	
benzylpenicillin	powder for injection, 600 mg (= 1 million IU), 3 g (= 5 million IU) (sodium or potassium salt) in vial	6.2.1	
benzathine benzylpenicillin	powder for injection, 1.44 g benzylpenicillin (= 2.4 million IU) in 5-ml vial	6.2.1	
c	ceftriaxone	powder for injection, 250 mg, 1 g (as sodium salt) in vial	6.2.1
	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	6.2.1
	chloramphenicol	capsule, 250 mg; oral suspension, 150 mg (as palmitate)/5 ml; powder for injection, 1 g (sodium succinate) in vial; oily suspension for injection 0.5 g (as sodium succinate)/ml in 2-ml ampoule	6.2.2
	ciprofloxacin*	tablet 250 mg (as hydrochloride) * final selection depends on indication for use	6.2.2
	clotrimazole	vaginal tablet, 100 mg, 500 mg, vaginal cream 1%, 10%	6.3
	doxycycline*	capsule or tablet, 100 mg (hydrochloride) * final selection depends on indication for use	6.2.2
	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	6.2.2
	gentamicin*	injection, 10 mg, 40 mg (as sulfate)/ml in 2-ml vial * final selection depends on indication for use	6.2.2
	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	6.2.2
	miconazole	ointment or cream, 2% (nitrate)	13.1
	nitrofurantoin	tablet, 100 mg	6.2.2
	procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU) in vial	6.2.1
	tetracycline	eye ointment, 1% (hydrochloride)	21.1
	sulfamethoxazole + trimethoprim	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 ampoules	6.2.2

Medicine	Dosage	Therapeutic category (14th WHO Model List)	
<b>Antimalarials</b>			
<i>It should be noted that the standard treatment guidelines for the treatment and prevention of malaria are currently being updated and should be referred to when available.</i>			
c	artemether	injection, 80 mg/ml in 1-ml ampoule	6.5.3.1
c	artesunate	tablet, 50 mg	6.5.3.1
	chloroquine	tablet, 150 mg (as phosphate or sulfate); syrup, 50 mg (as phosphate or sulfate)/5 ml	6.5.3.1 6.5.3.2
c	mefloquine	tablet, 250 mg (as hydrochloride)	6.5.3.1 6.5.3.2
	quinine	tablet, 300 mg (as bisulfate or sulfate); injection, 300 mg (as dihydrochloride)/ml in 2-ml ampoule	6.5.3.1
c	doxycycline	capsule or tablet, 100 mg (hydrochloride) <i>(for use only in combination with quinine)</i>	6.5.3.1 6.5.3.2
c	sulfadoxine + pyrimethamine	tablet, 500 mg + 25 mg	6.5.3.1
	proguanil	tablet, 100 mg (hydrochloride) <i>(for use only in combination with chloroquine)</i>	6.5.3.2
<b>Antituberculosis</b>			
	ethambutol	tablet, 100 mg-400 mg (hydrochloride)	6.2.4
	isoniazid	tablet, 100 mg-300 mg	6.2.4
	isoniazid + ethambutol	tablet, 150 mg + 400mg	6.2.4
	pyrazinamide	tablet, 400 mg	6.2.4
	rifampicin	capsule or tablet, 150 mg, 300 mg	6.2.4
	rifampicin + isoniazid	tablet, 60 mg + 30 mg; 150 mg + 75 mg; 300 mg + 150 mg; 60 mg + 60 mg <i>(for intermittent use three times weekly)</i> ; 150 mg + 150 mg <i>(for intermittent use three times weekly)</i>	6.2.4
	rifampicin + isoniazid + pyrazinamide	tablet, 60 mg + 30 mg + 150 mg; 150 mg + 75 mg + 400 mg; 150 mg + 150 mg + 500 mg <i>(for intermittent use three times weekly)</i>	6.2.4
	rifampicin + isoniazid + pyrazinamide + ethambutol	tablet, 150 mg + 75 mg + 400 mg + 275 mg	6.2.4
<b>Anthelmintics</b>			
	pyrantel	chewable tablet 250 mg (as embonate); oral suspension, 50 mg (as embonate)/ml	6.1.1
	mebendazole	chewable tablet, 100 mg, 500 mg	6.1.1
<b>Anticonvulsants</b>			
	diazepam	injection, 5 mg/ml in 2-ml ampoule (intravenous or rectal)	5
	magnesium sulfate*	injection, 500 mg/ml in 2-ml ampoule; 500 mg/ml in 10-ml ampoule * for use in eclampsia and severe pre-eclampsia and not for other convulsant disorders	5
	phenobarbital	tablet, 15-100 mg; elixir, 15 mg/5ml	5
	phenytoin	capsule or tablet, 25 mg, 50 mg, 100 mg (sodium salt); injection, 50 mg/ml in 5-ml vial (sodium salt)	5

Medicine	Dosage	Therapeutic category (14th WHO Model List)
<b>Antihypertensives</b>		
hydralazine*	tablet, 25 mg, 50 mg (hydrochloride); powder for injection, 20 mg (hydrochloride) in ampoule * hydralazine is listed for use in the acute management of severe pregnancy-induced hypertension only	12.3
methyldopa*	tablet, 250 mg * methyldopa is listed for use in the management of pregnancy-induced hypertension only	12.3
<b>Diuretics</b>		
furosemide	tablet, 40 mg; injection, 10 mg/ml in 2-ml ampoule	16
<b>IV Fluids</b>		
glucose	injectable solution, 5%, 10% isotonic; 50% hypertonic	26.2
sodium chloride	injectable solution, 0.9% isotonic (equivalent to Na <sup>+</sup> 154 mmol/l, Cl <sup>-</sup> 154 mmol/l)	26.2
Ringer's lactate	injectable solution	26.2
glucose with sodium chloride	injectable solution, 4% glucose, 0.18% sodium chloride (equivalent to Na <sup>+</sup> 30 mmol/l, Cl <sup>-</sup> 30 mmol/l)	26.2
<b>Plasma substitutes</b>		
dextran 70*	injectable solution, 6% * polygeline, injectable solution, 3.5% is considered as equivalent	11.1
<b>Anticoagulants</b>		
heparin sodium	injection, 1000 IU/ml, 5000 IU/ml, 20,000 IU/ml in 1-ml ampoule	10.2
protamine sulfate	injection, 10 mg/ml in 5-ml ampoule	10.2
phytomenadione (vitamin K)	injection, 10 mg/ml in 5-ml ampoule; tablet, 10 mg	10.2
<b>Antidiabetics</b>		
insulin	injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial	18.5
intermediate-acting insulin	injection, 40 IU/ml in 10-ml vial; 100 IU/ml in 10-ml vial (as compound insulin zinc suspension or isophane insulin)	18.5
<b>Immunologicals and vaccines</b>		
anti-D immunoglobulin	injection, 250 micrograms in single-dose vial	19.2
antitetanus immunoglobulin	injection, 500 IU in vial	19.2
BCG vaccine		19.3.1
diphtheria vaccine		19.3.1
hepatitis B vaccine		19.3.1
poliomyelitis vaccine		19.3.1
tetanus vaccine		19.3.1
<b>Dermatologicals</b>		
methylrosanilinium chloride (gentian violet)	aqueous solution, 0.5%; tincture, 0.5%	13.2

Medicine	Dosage	Therapeutic category (14th WHO Model List)	
<b>Disinfectants and antiseptics</b>			
	polyvidone iodine	solution, 10%	15.1
	chlorhexidine	solution, 5% ( digluconate) for dilution	15.1
	calcium hypochlorite (chlorine base compound)	powder (0.1% available chlorine) for solution	15.2
	ethanol	solution, 70% (denatured)	15.1
<b>Oxytocics</b>			
c	mifepristone* + misoprostol*	tablet 200 mg - tablet 200 micrograms, * requires close medical supervision where permitted under national law and where culturally acceptable	22.1
c	misoprostol	vaginal tablet, 25 micrograms	22.1
	oxytocin	injection, 10 IU in 1-ml ampoule	22.1
	ergometrine	injection, 200 micrograms (hydrogen maleate) in 1-ml ampoule	22.1
<b>Tocolytics</b>			
	nifedipine	immediate release capsule, 10 mg	22.2
<b>Sedatives</b>			
	diazepam	injection, 5 mg/ml in 2-ml ampoule; tablet, 5 mg	1.3
<b>Antiallergics and medicines used in anaphylaxis</b>			
	epinephrine (adrenaline)	injection, 1 mg (as hydrochloride)/ml in ampoule	3
<b>Medicines used in emergencies</b>			
	atropine sulfate	injection, 1 mg (sulfate) in 1-ml ampoule	4.2
	digoxin	tablet, 62.5 micrograms, 250 micrograms; oral solution 50 micrograms/ml; injection 250 micrograms/ml in 2-ml ampoule	12.2 12.4
	epinephrine (adrenaline)	injection, 1 mg (hydrochloride)/ml in ampoule	12.2
	promethazine	elixir or syrup, 5 mg (hydrochloride)/5 ml	1.3
	glyceryl trinitrate	tablet (sublingual), 500 micrograms	12.1
	calcium gluconate	injection, 100 mg/ml in 10-ml ampoule	4.2
	naloxone	injection, 400 micrograms (hydrochloride) in 1-ml ampoule	4.2
	furosemide	tablet, 40 mg; injection, 10 mg/ml in 2-ml ampoule	12.4
	prednisolone*	tablet, 5 mg, 25 mg * there is no evidence for complete clinical similarity between prednisolone and dexamethasone at high doses	3
	chlorphenamine	tablet, 4 mg (hydrogen maleate); injection, 10 mg (hydrogen maleate) in 1-ml ampoule	3
<b>Steroids</b>			
	dexamethasone	injection, 4 mg dexamethasone phosphate (as disodium salt) in 1-ml ampoule	3
	hydrocortisone	powder for injection, 100 mg (as sodium succinate) in vial	3



The Interagency List of Essential Medicines for Reproductive Health

Medicine	Dosage	Therapeutic category (14th WHO Model List)
<b>Others</b>		
oral rehydration salts* (for glucose-electrolyte solution)	glucose: 75 mEq sodium: 75 mEq or mmol/l chloride: 65 mEq or mmol/l potassium: 20 mEq or mmol/l citrate: 10 mmol/l osmolarity: 245 mOsm/l	17.5.1
zinc sulfate*	tablet or syrup in 10 mg per unit dosage forms * in acute diarrhoea zinc sulfate should be used as an adjunct to oral rehydration salts	17.5.2
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 (as palmitate)/ml in multidose dispenser; water-miscible injection 100 000 IU (as palmitate) (55 mg) in 2-ml ampoule	27

Medicine	Dosage	Therapeutic category (14th WHO Model List)	
<b>Family Planning</b>			
1. Medical eligibility criteria for contraceptive use. 3 <sup>rd</sup> ed. Geneva: World Health Organization; 2004. <a href="http://www.who.int/reproductive-health/publications/mec/index.htm">http://www.who.int/reproductive-health/publications/mec/index.htm</a>			
<b>Oral hormonal contraceptives</b>			
ethinylestradiol + levonorgestrel	tablet, 30 micrograms + 150 micrograms	18.3.1	
levonorgestrel	tablet, 30 micrograms, 750 micrograms (pack of two), 1.5 mg	18.3.1	
ethinylestradiol + norethisterone	tablet, 35 micrograms + 1.0 mg	18.3.1	
<b>Injectable hormonal contraceptives</b>			
medroxyprogesterone acetate	depot injection, 150 mg/ml in 1-ml vial	18.3.2	
norethisterone enanthate	oily solution, 200 mg/ml in 1-ml ampoule	18.3.2	
<b>IUD</b>			
copper IUD		18.3.3	
<b>Barrier methods</b>			
condoms		18.3.4	
diaphragms		18.3.4	
<b>Reproductive Tract Infections/Sexually Transmitted Diseases</b>			
1. Pregnancy, childbirth, postpartum and newborn care: A guide for essential practice. Geneva: World Health Organization; 2003. <a href="http://www.who.int/reproductive-health/publications/pcpnc/index.html">http://www.who.int/reproductive-health/publications/pcpnc/index.html</a>			
2. Managing complications in pregnancy and childbirth: a guide for midwives and doctors. Geneva: World Health Organization; 2000. <a href="http://www.who.int/reproductive-health/impac/index.html">http://www.who.int/reproductive-health/impac/index.html</a>			
3. Managing new born problems: A guide for doctors, nurses and midwives. Geneva: World Health Organization; 2003. <a href="http://www.who.int/reproductive-health/publications/mnp/index.html">http://www.who.int/reproductive-health/publications/mnp/index.html</a>			
4. Guidelines for the management of sexually transmitted infections. Geneva: World Health Organization; 2003. <a href="http://www.who.int/reproductive-health/publications/rhr_01_10_mngt_stis/index.html">http://www.who.int/reproductive-health/publications/rhr_01_10_mngt_stis/index.html</a>			
c	ceftriaxone	powder for injection, 250 mg, 1 g (as sodium salt) in vial	6.2.1
	cefixime*	capsule 400 mg * only listed for single-dose treatment of uncomplicated ano-genital gonorrhoea	6.2.1
	azithromycin*	capsule, 250 mg or 500 mg; suspension 200 mg/5ml * only listed for single-dose treatment of genital C. trachomatis and of trachoma	6.2.2
	spectinomycin	powder for injection, 2 g (as hydrochloride) in vial	6.2.2
	amoxicillin	capsule or tablet, 250 mg, 500 mg (anhydrous); powder for oral suspension, 125 mg (anhydrous)/5 ml	6.2.1
	sulfamethoxazole + trimethoprim	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 ampoules	6.2.2
	doxycycline*	capsule or tablet, 100 mg (hydrochloride) * final selection depends on indication for use	6.2.2
	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	6.2.2

Medicine	Dosage	Therapeutic category (14th EML)
tetracycline	eye ointment, 1% (hydrochloride)	21.1
benzathine benzylpenicillin	powder for injection, 1.44 g benzylpenicillin (= 2.4 million IU) in 5-ml vial	6.2.1
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	6.2.2
c clindamycin	capsule, 150 mg; injection, 150 mg (as phosphate)/ml	6.2.2
miconazole	ointment or cream, 2% (nitrate)	13.1
clotrimazole	vaginal tablet, 100 mg, 500 mg, vaginal cream 1%, 10%	6.3
fluconazole	capsule 50 mg; injection 2 mg/ml in vial; oral suspension 50 mg/5 ml	6.3
nystatin	tablet, 100 000, 500 000 IU; lozenge 100 000 IU; pessary, 100 000 IU	6.3
gentamicin*	injection, 10 mg, 40 mg (as sulfate)/ml in 2-ml vial * final selection depends on indication for use	6.2.2
chloramphenicol	capsule, 250 mg; oral suspension, 150 mg (as palmitate)/5 ml; powder for injection, 1 g (sodium succinate) in vial; oily suspension for injection 0.5 g (as sodium succinate)/ml in 2 ml ampoule	6.2.2
procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU) in vial	6.2.1
<b>HIV Medicines (ART, MTCT and Opportunistic Infections)</b>		
1. Scaling up antiretroviral therapy in resource-limited settings. Treatment guidelines for a public health approach. Geneva: World Health Organization; 2004. <a href="http://www.who.int/3by5/publications/documents/arv_guidelines/en/index.html">http://www.who.int/3by5/publications/documents/arv_guidelines/en/index.html</a>		
zidovudine	tablet, 300 mg; capsule 100 mg, 250 mg; oral solution or syrup, 50 mg/5 ml; solution for IV infusion injection, 10 mg/ml in 20-ml vial	6.4.2.1
didanosine	buffered chewable, dispersible tablet, 25 mg, 50 mg, 100 mg, 150 mg, 200 mg buffered powder for oral solution, 100 mg, 167 mg, 250 mg packets unbuffered enteric coated capsule, 125 mg, 200 mg, 250 mg, 400 mg	6.4.2.1
stavudine	capsule 15 mg, 20 mg, 30 mg, 40 mg, powder for oral solution, 5 mg/5 ml	6.4.2.1
lamivudine	tablet, 150 mg, oral solution 50 mg/5 ml	6.4.2.1
abacavir	tablet, 300 mg (as sulfate), oral solution, 100 mg (as sulfate)/5 ml	6.4.2.1
<b>Non-nucleoside reverse transcriptase inhibitors</b>		
nevirapine	tablet 200 mg; oral suspension 50 mg/5 ml	6.4.2.2
efavirenz	capsule, 50 mg, 100 mg, 200 mg oral solution, 150 mg/5 ml	6.4.2.2
<b>Protease inhibitors</b>		
saquinavir	capsule, 200 mg	6.4.2.3
ritonavir	capsule, 100 mg, oral solution 400 mg/5 ml	6.4.2.3
indinavir	capsule, 200 mg, 333 mg, 400 mg (as sulfate)	6.4.2.3
nelfinavir	tablet, 250 mg (as mesilate), oral powder 50 mg/g	6.4.2.3
lopinavir + ritonavir	capsule, 133.3 mg + 33.3 mg, oral solution, 400 mg + 100 mg/5 ml	6.4.2.3

Medicine	Dosage	Therapeutic category (14th EML)
<b>Medicines used in opportunistic infections</b>		
c	ceftriaxone powder for injection, 250 mg, 1 g (as sodium salt) in vial	6.2.1
c	clindamycin capsule, 150 mg; injection, 150 mg (as phosphate)/ml	6.2.2
	ciprofloxacin* tablet 250 mg (as hydrochloride) * final selection depends on indication for use	6.2.2
c	sulfadiazine tablet, 500 mg; injection, 250 mg (sodium salt) in 4-ml ampoule	6.2.2
	fluconazole capsule 50 mg; injection 2 mg/ml in vial; oral suspension 50 mg/5 ml	6.3
	aciclovir tablet, 200 mg; powder for injection 250 mg (as sodium salt) in vial	6.4.1
c	pentamidine tablet, 200 mg, 300 mg	6.5.4
	pyrimethamine tablet, 25 mg	6.5.4
	sulfamethoxazole + trimethoprim injection 80 mg + 16 mg/ml in 5-ml ampoule 80 mg + 16 mg/ml in 10-ml ampoule	6.5.4



## Format 2

### Explanation

The second format follows the format and section numbering of the WHO Model List of Essential Medicines, and as in Format 1 only relevant sections are included.

The **core list** presents a list of minimum medicine needs for a basic health care system, listing the most efficacious, safe and cost-effective medicines for priority conditions. Priority conditions are selected on the basis of current and estimated future public health relevance, and potential for safe and cost-effective treatment. The **complementary list** presents essential medicines for priority diseases, for which specialized diagnostic or monitoring facilities, and/or specialist medical care, and/or specialist training are needed. In case of doubt, medicines may also be listed as complementary on the basis of consistent higher costs or less attractive cost-effectiveness in a variety of settings.

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".

The **square box symbol** (□) is primarily intended to indicate similar clinical performance within a pharmacological class. The listed medicine should be the example of the class for which there is the best evidence for effectiveness and safety. In some cases, this may be the first medicine that is licensed for marketing; in other instances, subsequently licensed compounds may be safer or more effective. Where there is no difference in terms of efficacy and safety data, the listed medicine should be the one that is generally available at the lowest price, based on international drug price information sources. Therapeutic equivalence is only indicated on the basis of reviews of efficacy and safety and when consistent with WHO clinical guidelines. National lists should not use a similar symbol and should be specific in their final selection, which would depend on local availability and price. Medicines are listed in alphabetical order, within sections.



<b>1. ANAESTHETICS</b>	
<b>1.1 General anaesthetics and oxygen</b>	
<input type="checkbox"/> halothane	inhalation
ketamine	injection, 50 mg (as hydrochloride)/ml in 10-ml vial
nitrous oxide	inhalation
oxygen	inhalation (medicinal gas)
<input type="checkbox"/> thiopental	powder for injection, 0.5 g, 1.0 g (sodium salt) in ampoule
<b>1.2 Local anaesthetics</b>	
<input type="checkbox"/> lidocaine	injection, 1%, 2% (hydrochloride) 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)
lidocaine + epinephrine (adrenaline)	injection 1%, 2% (hydrochloride) + epinephrine 1:200 000 in vial; dental cartridge 2% (hydrochloride) + epinephrine 1:80 000
<i>Complementary List</i>	
<i>ephedrine</i>	<i>injection, 30 mg (hydrochloride)/ml in 1-ml ampoule (for use in spinal anaesthesia during delivery, to prevent hypotension)</i>
<b>1.3 Preoperative medication and sedation for short-term procedures</b>	
atropine	injection, 1 mg (sulfate) in 1-ml ampoule
<input type="checkbox"/> diazepam	injection, 5 mg/ml in 2-ml ampoule; tablet, 5 mg
morphine	injection, 10 mg (sulfate or hydrochloride) in 1-ml ampoule
promethazine	elixir or syrup, 5 mg (hydrochloride)/5 ml
<b>2. ANALGESICS, ANTIPYRETICS, NON-STEROIDAL ANTI-INFLAMMATORY MEDICINES (NSAIDs), MEDICINES USED TO TREAT GOUT AND DISEASE MODIFYING AGENTS IN RHEUMATOID DISORDERS (DMARDs)</b>	
<b>2.1 Non-opioids and non-steroidal anti-inflammatory medicines (NSAIDs)</b>	
acetylsalicylic acid	tablet, 100-500 mg; suppository, 50-150 mg
paracetamol*	tablet, 100-500 mg; suppository, 100 mg; syrup, 125 mg/5 ml * not recommended for anti-inflammatory use due to lack of proven benefit to that effect
<b>2.2 Opioid analgesics</b>	
morphine	injection, 10 mg in 1-ml ampoule (sulfate or hydrochloride); oral solution, 10 mg (hydrochloride or sulfate)/5 ml; tablet, 10 mg (sulfate)



<b>3. ANTIALLERGICS AND MEDICINES USED IN ANAPHYLAXIS</b>	
<input type="checkbox"/> chlorphenamine	tablet, 4 mg (hydrogen maleate); injection, 10 mg (hydrogen maleate) in 1-ml ampoule
dexamethasone	injection, 4 mg dexamethasone phosphate (as disodium salt) in 1-ml ampoule
epinephrine (adrenaline)	injection, 1 mg (as hydrochloride or hydrogen tartrate) in 1-ml ampoule
hydrocortisone	powder for injection, 100 mg (as sodium succinate) in vial
<input type="checkbox"/> prednisolone*	tablet, 5 mg, 25 mg * there is no evidence for complete clinical similarity between prednisolone and dexamethasone at high doses
<b>4. ANTIDOTES AND OTHER SUBSTANCES USED IN POISONINGS</b>	
Section 4 will be reviewed at the next meeting of the Expert Committee.	
<b>4.2 Specific</b>	
atropine	injection, 1 mg (sulfate) in 1-ml ampoule
calcium gluconate	injection, 100 mg/ml in 10-ml ampoule
naloxone	injection, 400 micrograms (hydrochloride) in 1-ml ampoule
<b>5. ANTICONVULSANTS/ANTIEPILEPTICS</b>	
<input type="checkbox"/> diazepam	injection, 5 mg/ml in 2-ml ampoule (intravenous or rectal)
magnesium sulfate*	injection, 500 mg/ml in 2-ml ampoule; 500 mg/ml in 10-ml ampoule * for use in eclampsia and severe pre-eclampsia and not for other convulsant disorders
phenobarbital	tablet, 15-100 mg; elixir, 15 mg/5 ml
phenytoin	capsule or tablet, 25 mg, 50 mg, 100 mg (sodium salt); injection, 50 mg/ml in 5-ml vial (sodium salt)
<b>6. ANTI-INFECTIVE MEDICINES</b>	
<b>6.1 Anthelmintics</b>	
<b>6.1.1 Intestinal anthelmintics</b>	
<input type="checkbox"/> mebendazole	chewable tablet, 100 mg, 500 mg
pyrantel	chewable tablet 250 mg (as embonate); oral suspension, 50 mg (as embonate)/ml
<b>6.2 Antibacterials</b>	
<b>6.2.1 Beta-Lactam medicines</b>	
Applications for cefalexin and cefazolin are anticipated for the next meeting of the Expert Committee.	
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
cefixime*	capsule 400 mg * only listed for single-dose treatment of uncomplicated ano-genital gonorrhoea
<input type="checkbox"/> 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
procaine benzylpenicillin	powder for injection, 1 g (= 1 million IU), 3 g (= 3 million IU) in vial
<i>Complementary List</i>	
<input type="checkbox"/> ceftriaxone	powder for injection, 250 mg, 1 g (as sodium salt) in vial
<b>6.2.2 Other antibacterials</b>	
azithromycin*	capsule, 250 mg or 500 mg; suspension 200 mg/5 ml * only listed for single-dose treatment of genital <i>C. trachomatis</i> and of trachoma
chloramphenicol	capsule, 250 mg; oral suspension, 150 mg (as palmitate)/5 ml; powder for injection, 1 g (sodium succinate) in vial; oily suspension for injection 0.5 g (as sodium succinate)/ml in 2-ml ampoule
<input type="checkbox"/> ciprofloxacin*	tablet, 250 mg (as hydrochloride) * final selection depends on indication for use
doxycycline*	capsule or tablet, 100 mg (hydrochloride) * final selection depends on indication for use
<input type="checkbox"/> 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
<input type="checkbox"/> gentamicin*	injection, 10 mg, 40 mg (as sulfate)/ml in 2-ml vial * final selection depends on indication for use
nitrofurantoin	tablet, 100 mg
<input type="checkbox"/> 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
spectinomycin	powder for injection, 2 g (as hydrochloride) in vial
sulfamethoxazole + trimethoprim	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 ampoules
<i>Complementary List</i>	
<i>clindamycin</i>	<i>capsule, 150 mg; injection, 150 mg (as phosphate)/ml</i>
<i>sulfadiazine</i>	<i>tablet, 500 mg; injection, 250 mg (sodium salt) in 4-ml ampoule</i>

<b>6.2.4 Antituberculosis medicines</b>	
ethambutol	tablet, 100 mg-400 mg (hydrochloride)
isoniazid	tablet, 100 mg-300 mg
isoniazid + ethambutol	tablet, 150 mg + 400mg
pyrazinamide	tablet, 400 mg
rifampicin	capsule or tablet, 150 mg, 300 mg
rifampicin + isoniazid	tablet, 60 mg + 30 mg; 150 mg + 75 mg; 300 mg + 150 mg; 60 mg + 60 mg (for intermittent use three times weekly); 150 mg + 150 mg (for intermittent use three times weekly)
rifampicin + isoniazid + pyrazinamide	tablet, 60 mg + 30 mg + 150 mg; 150 mg + 75 mg + 400 mg; 150 mg + 150 mg + 500 mg (for intermittent use three times weekly)
rifampicin + isoniazid + pyrazinamide + ethambutol	tablet, 150 mg + 75 mg + 400 mg + 275 mg
<b>6.3 Antifungal medicines</b>	
clotrimazole	vaginal tablet, 100 mg, 500 mg, vaginal cream 1%, 10%
□ fluconazole	capsule, 50 mg; injection 2 mg/ml in vial; oral suspension 50 mg/5-ml
nystatin	tablet, 100 000, 500 000 IU; lozenge 100 000 IU; pessary, 100 000 IU
<b>6.4 Antiviral medicines</b>	
<b>6.4.1 Antiherpes medicines</b>	
□ aciclovir	tablet, 200 mg; powder for injection 250 mg (as sodium salt) in vial
<b>6.4.2 Antiretrovirals</b>	
<p>Adequate resources and specialist oversight are prerequisites for the introduction of this class of drugs. The antiretroviral drugs do not cure the HIV infection, they only temporarily suppress viral replication and improve symptoms. They have various adverse effects and patients receiving these drugs require careful monitoring by adequately trained health professionals. For these reasons, continued rigorous promotion of measures to prevent new infections is essential and the need for this has not been diminished in any way by the addition of antiretroviral drugs to the Model List. Sufficient resources and trained health professionals are prerequisites for the introduction of this class of drugs. Effective therapy requires commencement of three or four drugs simultaneously, and alternative regimens are necessary to meet specific requirements at start-up, to substitute for first-line regimens in the case of toxicity, or to replace failing regimens. In order to simplify treatment, facilitate storage and distribution, and improve patients' adherence to the treatment plan, the Committee recommends and endorses the use of fixed-dose combinations and the development of appropriate new fixed-dose combinations. These include modified dosage forms, non-refrigerated formulations and paediatric formulations with assured pharmaceutical quality and interchangeability with the single products as approved by the relevant drug regulatory authority.</p>	
<b>6.4.2.1 Nucleoside reverse transcriptase inhibitors</b>	
abacavir (ABC)	tablet, 300 mg (as sulfate), oral solution, 100 mg (as sulfate)/5 ml
didanosine (ddI)	buffered chewable, dispersible tablet, 25 mg, 50 mg, 100 mg, 150 mg, 200 mg buffered powder for oral solution, 100 mg, 167 mg, 250 mg packets unbuffered enteric coated capsule, 125 mg, 200 mg, 250 mg, 400 mg
lamivudine (3TC)	tablet, 150 mg, oral solution 50 mg/5 ml
stavudine (d4T)	capsule 15 mg, 20 mg, 30 mg, 40 mg, powder for oral solution, 5 mg/5 ml

zidovudine (ZDV or AZT)	tablet, 300 mg capsule, 100 mg, 250 mg oral solution or syrup, 50 mg/5 ml solution for IV infusion injection, 10 mg/ml in 20-ml vial
<b>6.4.2.2 Non-nucleoside reverse transcriptase inhibitors</b>	
efavirenz (EFV or EFZ)	capsule, 50 mg, 100 mg, 200 mg oral solution, 150 mg/5 ml
nevirapine (NVP)	tablet 200 mg; oral suspension 50 mg/5-ml
<b>6.4.2.3 Protease inhibitors</b>	
Selection of two or three protease inhibitors from the Model List will need to be determined by each country after consideration of local treatment guidelines and experience, as well as the comparative costs of available products. Ritonavir is recommended for use in combination with indinavir, lopinavir and saquinavir as a booster, and not as a drug in its own right.	
indinavir (IDV)	capsule, 200 mg, 333 mg, 400 mg (as sulfate)
ritonavir	capsule, 100 mg, oral solution 400 mg/5 ml
lopinavir + ritonavir (LPV/r)	capsule, 133.3 mg + 33.3 mg, oral solution, 400 mg + 100 mg/5 ml
nelfinavir (NFV)	tablet, 250 mg (as mesilate), oral powder 50 mg/g
saquinavir (SQV)	capsule, 200 mg
<b>6.5.3 Antimalarial medicines<sup>1</sup></b>	
<b>6.5.3.1 For curative treatment</b>	
Medicines for the treatment of <i>P. falciparum</i> malaria cases should be used in combination.	
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
quinine	tablet, 300 mg (as bisulfate or sulfate); injection, 300 mg (as dihydrochloride)/ml in 2-ml ampoule
<i>Complementary List</i>	
<i>artemether</i>	<i>injection, 80 mg/ml in 1-ml ampoule</i>
<i>artesunate</i>	<i>tablet, 50 mg</i>
<i>doxycycline</i>	<i>capsule or tablet, 100 mg (hydrochloride) (for use only in combination with quinine)</i>
<i>mefloquine</i>	<i>tablet, 250 mg (as hydrochloride)</i>
<i>sulfadoxine + pyrimethamine</i>	<i>tablet, 500 mg + 25 mg</i>

<sup>1</sup> It should be noted that the standard treatment guidelines for the treatment and prevention of malaria are currently being updated and should be referred to when available.

<b>6.5.3.2 For prophylaxis</b>	
chloroquine	tablet, 150 mg (as phosphate or sulfate); syrup, 50 mg (as phosphate or sulfate)/5 ml
doxycycline	capsule or tablet, 100 mg (hydrochloride)
mefloquine	tablet, 250 mg (as hydrochloride)
proguanil	tablet, 100 mg (hydrochloride) <i>(for use only in combination with chloroquine)</i>
<b>6.5.4 Antipneumocystosis and antitoxoplasmosis medicines</b>	
pyrimethamine	tablet, 25 mg
sulfamethoxazole + trimethoprim	injection, 80 mg + 16 mg/ml in 5-ml ampoule 80 mg + 16 mg/ml in 10-ml ampoule
<i>Complementary List</i>	
<i>pentamidine</i>	<i>tablet, 200 mg, 300 mg</i>
<b>6.5.5 Antitrypanosomal medicines</b>	
<b>6.5.5.1 African trypanosomiasis</b>	
<i>Complementary List</i>	
<i>pentamidine</i>	<i>powder for injection, 200 mg, 300 mg (isetionate) in vial</i>
<b>10. MEDICINES AFFECTING THE BLOOD</b>	
<b>10.1 Antianaemia medicines</b>	
ferrous salt	tablet, equivalent to 60 mg iron; oral solution equivalent to 25 mg iron (as sulfate)/ml
ferrous salt + folic acid	tablet, equivalent to 60 mg iron + 400 micrograms folic acid <i>(nutritional supplement for use during pregnancy)</i>
folic acid	tablet, 1 mg, 5 mg
<b>10.2 Medicines affecting coagulation</b>	
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
<b>11. BLOOD PRODUCTS AND PLASMA SUBSTITUTES</b>	
<b>11.1 Plasma substitutes</b>	
<input type="checkbox"/> dextran 70*	injectable solution, 6% * polygeline, injectable solution, 3.5% is considered as equivalent

<b>12. CARDIOVASCULAR MEDICINES</b>	
<b>12.1 Antianginal medicines</b>	
glyceryl trinitrate	tablet (sublingual), 500 micrograms
<b>12.2 Antiarrhythmic medicines</b>	
This subsection will be reviewed at the next meeting of the Expert Committee when it is anticipated that applications for amiodarone and sotalol will be received.	
digoxin	tablet, 62.5 micrograms, 250 micrograms; oral solution 50 micrograms/ml; injection 250 micrograms/ml in 2-ml ampoule
epinephrine (adrenaline)	injection, 1 mg (as hydrochloride)/ml in ampoule
lidocaine	injection, 20 mg (hydrochloride)/ml in 5-ml ampoule
<b>12.3 Antihypertensive medicines</b>	
hydralazine*	tablet, 25 mg, 50 mg (hydrochloride); powder for injection, 20 mg (hydrochloride) in ampoule  * hydralazine is listed for use in the acute management of severe pregnancy-induced hypertension only. Its use in the treatment of essential hypertension is not recommended in view of the availability of more evidence of efficacy and safety of other medicines
methyldopa*	tablet, 250 mg * methyldopa is listed for use in the management of pregnancy-induced hypertension only. Its use in the treatment of essential hypertension is not recommended in view of the availability of more evidence of efficacy and safety of other medicines
<b>12.4 Medicines used in heart failure</b>	
This subsection will be reviewed at the next meeting of the Expert Committee.	
digoxin	tablet, 62.5 micrograms, 250 micrograms; oral solution, 50 micrograms/ml; injection, 250 micrograms/ml in 2-ml ampoule
<input type="checkbox"/> furosemide	tablet, 40 mg; injection, 10 mg/ml in 2-ml ampoule
<b>13. DERMATOLOGICAL MEDICINES (topical)</b>	
<b>13.1 Antifungal medicines</b>	
<input type="checkbox"/> miconazole	ointment or cream, 2% (nitrate)
<b>13.2 Anti-infective medicines</b>	
methylosanilinium chloride (gentian violet)	aqueous solution, 0.5%; tincture, 0.5%
<b>15. DISINFECTANTS AND ANTISEPTICS</b>	
<b>15.1 Antiseptics</b>	
<input type="checkbox"/> chlorhexidine	solution, 5% (digluconate) for dilution
<input type="checkbox"/> ethanol	solution, 70% (denatured)
<input type="checkbox"/> polyvidone iodine	solution, 10%

<b>15.2 Disinfectants</b>																					
<input type="checkbox"/> chlorine base compound	powder (0.1% available chlorine) for solution/calcium hypochlorite																				
<b>16. DIURETICS</b>																					
<input type="checkbox"/> furosemide	tablet, 40 mg; injection, 10 mg/ml in 2-ml ampoule																				
<b>17. GASTROINTESTINAL MEDICINES</b>																					
<b>17.5 Medicines used in diarrhoea</b>																					
<b>17.5.1 Oral rehydration</b>																					
oral rehydration salts* (for glucose-electrolyte solution)	<table> <tr> <td>glucose:</td> <td>75 mEq</td> </tr> <tr> <td>sodium:</td> <td>75 mEq or mmol/l</td> </tr> <tr> <td>chloride:</td> <td>65 mEq or mmol/l</td> </tr> <tr> <td>potassium:</td> <td>20 mEq or mmol/l</td> </tr> <tr> <td>citrate:</td> <td>10 mmol/l</td> </tr> <tr> <td>osmolarity:</td> <td>245 mOsm/l</td> </tr> <tr> <td>glucose:</td> <td>13.5 g/l</td> </tr> <tr> <td>sodium chloride:</td> <td>2.6 g/l</td> </tr> <tr> <td>potassium chloride:</td> <td>1.5 g/l</td> </tr> <tr> <td>trisodium citrate dihydrate+:</td> <td>2.9 g/l</td> </tr> </table> <p>+ trisodium citrate dihydrate may be replaced by sodium hydrogen carbonate (sodium bicarbonate) 2.5 g/l. However, as the stability of this latter formulation is very poor under tropical conditions, it is only recommended when manufactured for immediate use</p> <p>* in cases of cholera a higher concentration of sodium may be required</p>	glucose:	75 mEq	sodium:	75 mEq or mmol/l	chloride:	65 mEq or mmol/l	potassium:	20 mEq or mmol/l	citrate:	10 mmol/l	osmolarity:	245 mOsm/l	glucose:	13.5 g/l	sodium chloride:	2.6 g/l	potassium chloride:	1.5 g/l	trisodium citrate dihydrate+:	2.9 g/l
glucose:	75 mEq																				
sodium:	75 mEq or mmol/l																				
chloride:	65 mEq or mmol/l																				
potassium:	20 mEq or mmol/l																				
citrate:	10 mmol/l																				
osmolarity:	245 mOsm/l																				
glucose:	13.5 g/l																				
sodium chloride:	2.6 g/l																				
potassium chloride:	1.5 g/l																				
trisodium citrate dihydrate+:	2.9 g/l																				
<b>17.5.2 Medicines for diarrhoea in children</b>																					
zinc sulfate*	tablet or syrup in 10 mg per unit dosage forms * in acute diarrhoea zinc sulfate should be used as an adjunct to oral rehydration salts																				
<b>18. HORMONES, OTHER ENDOCRINE MEDICINES AND CONTRACEPTIVES</b>																					
<b>18.3 Contraceptives</b>																					
This subsection will be reviewed at the next meeting of the Expert Committee.																					
<b>18.3.1 Oral hormonal contraceptives</b>																					
<input type="checkbox"/> ethinylestradiol + <input type="checkbox"/> levonorgestrel	tablet, 30 micrograms + 150 micrograms																				
<input type="checkbox"/> ethinylestradiol + <input type="checkbox"/> norethisterone	tablet, 35 micrograms + 1.0 mg																				
levonorgestrel	tablet, 30 micrograms, 750 micrograms (pack of two), 1.5 mg																				
<b>18.3.2 Injectable hormonal contraceptives</b>																					
medroxyprogesterone acetate	depot injection, 150 mg/ml in 1-ml vial																				
norethisterone enanthate	oily solution, 200 mg/ml in 1-ml ampoule																				

<b>18.3.3 Intrauterine devices</b>	
copper-containing device	
<b>18.3.4 Barrier methods</b>	
condoms	
diaphragms	
<b>18.5 Insulins and other antidiabetic agents</b>	
insulin injection (soluble)	injection, 40 IU/ml in 10-ml vial, 100 IU/ml in 10-ml vial
intermediate-acting insulin	injection, 40 IU/ml in 10 ml vial; 100 IU/ml in 10 ml vial (as compound insulin zinc suspension or isophane insulin)
<b>19. IMMUNOLOGICALS</b>	
<b>19.2 Sera and immunoglobulins</b>	
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 Expert Committee on Biological Standardization, Forty-third report, (WHO Technical Report Series, No. 840, 1994, Annex 2).	
anti-D immunoglobulin (human)	injection, 250 micrograms in single-dose vial
antitetanus immunoglobulin (human)	injection, 500 IU in vial
<b>19.3 Vaccines</b>	
All vaccines should comply with the WHO Requirements for Biological Substances.	
<b>19.3.1 For universal immunization</b>	
BCG vaccine	
diphtheria vaccine	
hepatitis B vaccine	
poliomyelitis vaccine	
tetanus vaccine	
<b>20. MUSCLE RELAXANTS (PERIPHERALLY-ACTING) AND CHOLINESTERASE INHIBITORS</b>	
suxamethonium	injection, 50 mg (chloride)/ml in 2-ml ampoule; powder for injection (chloride), in vial
<b>21. OPHTHALMOLOGICAL PREPARATIONS</b>	
This section will be reviewed at the next meeting of the Expert Committee	
<b>21.1 Anti-infective agents</b>	
<input type="checkbox"/> tetracycline	eye ointment, 1% (hydrochloride)



<b>22. OXYTOCICS AND ANTIOXYTOCICS</b>	
<b>22.1 Oxytocics</b>	
□ ergometrine	injection, 200 micrograms (hydrogen maleate) in 1-ml ampoule
oxytocin	injection, 10 IU in 1-ml ampoule
<i>Complementary List</i>	
<i>misoprostol</i>	<i>vaginal tablet, 25 micrograms</i>
<i>mifepristone* - misoprostol*</i>	<i>tablet 200 mg - tablet 200 micrograms * requires close medical supervision</i>
<i>Where permitted under national law and where culturally acceptable.</i>	
<b>22.2 Antioxytocics</b>	
nifedipine	immediate release capsule, 10 mg
<b>26. SOLUTIONS CORRECTING WATER, ELECTROLYTE AND ACID-BASE DISTURBANCES</b>	
<b>26.1 Oral</b>	
oral rehydration salts (for glucose-electrolyte solution)	see section 17.5.1
<b>26.2 Parenteral</b>	
glucose	injectable solution, 5%, 10% isotonic; 50% hypertonic
glucose with sodium chloride	injectable solution, 4% glucose, 0.18% sodium chloride (equivalent to Na <sup>+</sup> 30 mmol/l, Cl <sup>-</sup> 30 mmol/l)
sodium chloride	injectable solution, 0.9% isotonic (equivalent to Na <sup>+</sup> 154 mmol/l, Cl <sup>-</sup> 154 mmol/l)
□ sodium lactate, compound solution	injectable solution
<b>26.3 Miscellaneous</b>	
water for injection	2-ml, 5-ml, 10-ml ampoules
<b>27. VITAMINS AND MINERALS</b>	
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 (as palmitate)/ml in multidose dispenser; water-miscible injection 100 000 IU (as palmitate) (55 mg) in 2-ml ampoule

## Annex 1: Major medicine changes in the Interagency List

### Medicines added to the Interagency List

The 14<sup>th</sup> WHO Expert Committee meeting on the Selection and Use of Essential Medicines accepted four medicines applications in the field of reproductive health. The medicines added to the 14<sup>th</sup> WHO Model List and consequently on the Interagency List of Essential Medicines for Reproductive Health are summarized below.

<b>Medicines added</b>	For more information, please refer to: <a href="http://mednet3.who.int/EML/edl/expcom14/expertcomm14.shtml">http://mednet3.who.int/EML/edl/expcom14/expertcomm14.shtml</a> and <a href="http://mednet3.who.int/EMLib/DiseaseTreatments/Medicines.aspx">http://mednet3.who.int/EMLib/DiseaseTreatments/Medicines.aspx</a> WHO Reproductive Health Library, available at: <a href="http://www.who.int/reproductive-health/rhl/index.html">http://www.who.int/reproductive-health/rhl/index.html</a>
cefixime, tablet	Cefixime was added to the 14 <sup>th</sup> Model List for the treatment of uncomplicated ano-genital gonorrhoea only. Cefixime is well tolerated and most adverse drug reactions are related to the gastrointestinal system.
clotrimazole, vaginal tablet and cream	Clotrimazole (1%, 10% vaginal cream; 100 mg, 500 mg vaginal tablet) was added to the 14 <sup>th</sup> Model List for the treatment of vulvovaginal candidiasis. There has been adequate clinical evidence to support the efficacy and safety of topical and intravaginal clotrimazole in the treatment of vulvovaginal candidiasis.
nifedipine, capsule	Nifedipine (10 mg immediate release capsules) was included on the 14 <sup>th</sup> Model List in the subsection of tocolytics. Strong evidence supports the use of nifedipine to inhibit preterm labour. Nifedipine is effective and safe for this indication, the sublingual route is pharmacologically equivalent to the conventional oral route as it is absorbed low in the gastrointestinal tract.
misoprostol, intravaginal tablet	In view of the evidence of its efficacy and safety, misoprostol (25 microgram intravaginal tablet) has been included on the complementary list of the 14 <sup>th</sup> Model List for the induction of at-term labour. Misoprostol has to be administered as low-dose vaginal tablets, and used only in organized health services with facilities to manage negative outcomes. Vaginal administration of misoprostol seems to be cost-effective, it reduces the incidence of operative deliveries which could lead to further indirect cost savings.
misoprostol, tablet + mifepristone, tablet	Mifepristone (200 mg tablet) followed by misoprostol (200 microgram tablet) have been included on the complementary list of the 14 <sup>th</sup> Model List for medical abortion within nine weeks of the start of pregnancy, with the following footnote: <i>Requires close medical supervision. The use of this medication in medical abortion should be undertaken under close medical supervision, and its efficacy decreases if used after nine weeks of gestation.</i> A note adjacent to the combination states: <i>Where permitted under national law and where culturally acceptable.</i>

## Medicines deleted from the Interagency List

Consensus among reproductive health stakeholders was reached on deleting certain medicines that (1) were deleted from the WHO Model List or (2) for which alternatives were found on the WHO Model List. These deletions are summarized below.

<b>Deleted medicines</b>	For more information, please refer to: <a href="http://whqlibdoc.who.int/trs/WHO_TRS_920.pdf">http://whqlibdoc.who.int/trs/WHO_TRS_920.pdf</a> <a href="http://mednet3.who.int/EML/edl/expcom14/14EMLReportFinal-withoutRecomm_040705.pdf">http://mednet3.who.int/EML/edl/expcom14/14EMLReportFinal-withoutRecomm_040705.pdf</a>
indometacin, tablet	Removed from the Interagency List as the harms outweigh the benefits.
diphenylhydramine, injection	Replaced by epinephrine injection, which is already listed on the WHO Model List.
ergometrine tablet	No robust clinical evidence to establish the effectiveness and safety of ergometrine when used alone for active management of labour and prevention of postpartum haemorrhage. Oxytocin is recommended instead. The WHO Expert Committee therefore deleted ergometrine tablets from the Model List; ergometrine injection was retained for the treatment of acute post-partum haemorrhage.
salbutamol, tablet as tocolytic	Deleted from the 14 <sup>th</sup> WHO Model List. There is inadequate evidence to support the efficacy of salbutamol as a tocolytic agent. No systematic review is available relating to salbutamol specifically.
tinidazole	Metronidazole was recommended as the first-line treatment of trichomoniasis.
ketoconazole and itraconazole,	Replaced by fluconazole that has similar effect and is a broad spectrum antifungal.
pethidine, injection	Pethidine is considered inferior to morphine due to its toxicity on the central nervous system and it is generally more expensive than morphine. It was deleted from the 13 <sup>th</sup> WHO Model List in 2003.
iron dextran, injection	Deleted from the 13 <sup>th</sup> WHO Model List in 2003, on the basis of its unfavourable benefit-risk ratio.
atenolol, tablet propranolol, tablet hydrochlorothiazide, tablet	Not recommended by WHO standard treatment guidelines for the treatment of hypertension in pregnancy.
spermicides (benzalconium, menfegol, nonoxynol and octoxynol)	Deleted from the 13 <sup>th</sup> Model List in 2003, because of the lack of evidence of any additional benefit of diaphragms and condoms with spermicides, and the strong suggestion of the potential of nonoxynol to increase the risk of transmission of HIV infection.
labetalol, tablet	A review was received from the Department of Reproductive Health and Research. The Committee noted that insufficient information was available on the efficacy of labetalol in the treatment of chronic hypertension in pregnancy. The Committee recommended no action at this stage, in view of the lack of evidence of better efficacy and safety of labetalol in the treatment of hypertension in pregnancy.



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In many developing countries maternal mortality and morbidity are unacceptably high, and the incidence of sexually transmitted infections, including HIV/AIDS, is rising, while preventive measures and treatment are often inadequate. Lack of access to reproductive health medicines and commodities is becoming a critical issue in developing countries, with family planning and other reproductive health care needs unmet.

The Interagency List of Essential Medicines for Reproductive Health has been developed by WHO in collaboration with major international and nongovernmental organizations active in the field of reproductive health. The list presents the current international consensus on a rational selection of medicines essential to the provision of quality reproductive health services. Essential medicines for reproductive health include contraceptives, medicines for prevention and treatment of sexually transmitted infections and HIV/AIDS, and medicines to ensure healthy pregnancy and delivery. All medicines on the Interagency List are also in the WHO Model List of Essential Medicines.

This publication presents the Interagency List in two formats: by clinical group and by therapeutic category. It is intended to support decisions regarding the selection, production, quality assurance, national procurement and reimbursement schemes of these medicines.

This is an interagency consensus document published by the WHO Departments of Medicines Policy and Standards and Reproductive Health and Research on behalf of the organizations listed.