

**Indian Academy of Pediatrics  
List of Essential Medicines  
for Children of India**

**First List - October 2011**



*in collaboration with*

World Health Organization  
Regional Office for South-East Asia  
New Delhi



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## Preface

In May 2007, the World Health Assembly passed resolution 60.20 which called on Member States to improve access to essential medicines for children. The ‘make medicines child size’ initiative of the World Health Organization (WHO) was a consequence of this resolution and formally commenced in December 2008 with funding from the Bill and Melinda Gates Foundation. Early discussions on the Better Medicines for Children (BMC) project in Africa and India took place in Accra, Ghana in 2009 for which the then president of the Indian Academy of Paediatrics (IAP), Dr. Panna Chaudhury was invited. Following this, in February 2010, representatives of the IAP were invited to attend the “Informal Consultation on Better Medicines for Children in India” which was held at the WHO’s South-East Asia Regional Office (SEARO) in New Delhi. At this meeting, the IAP was formally requested to prepare a list of essential medicines for the children of India which would reflect the morbidity patterns and other child health needs of the country, and which could perhaps, later form the basis of a national EMLc. The IAP readily accepted and took up this challenge.

Drawing upon the considerable knowledge enthusiasm and commitment of the nearly 18000 members of the IAP, the various chapters of the academy were given the task of identifying a minimal number of medicines that would be considered ‘essential’. The IAP convened “The National Consultative Meeting on Essential Medicines List for Children” on 17 October 2010 in Mumbai, where the first draft of the list was presented and reviewed. The list has undergone numerous revisions and has been reviewed by international and national experts to reach its present form.

The IAP's Essential Medicines List for children (EMLc) of India covers the basic needs for the majority of children seeking health care in the country. The medicines were selected based on the WHO criteria for selection of essential medicines, and the National Health Programmes in India. This is the first edition of the IAP EMLc 2011 and it contains 134 medicines. The IAP is committed to reviewing the list once in two years and to disseminate information and sensitize members of the IAP and medical practitioners in the public and private sector regarding the use and implementation of this EMLc.

The IAP wishes to thank all its chapters and members who directly and indirectly, so generously offered their time and expertise to this activity. It also wishes to place on record its sincere thanks to Dr. Gitanjali Batmanabane, Dr. Kathleen Holloway, Dr. Krisantha Weerasuriya and Dr. Suzanne Hill of WHO; Dr. Jatinder Singh of Govt. Medical College, Amritsar, Dr. S. Manikandan of Indira Gandhi Medical College Hospital & Research Institute, Puducherry and many others for their guidance and technical support during the preparation of this list. This list was funded by the Better Medicines for Children (India) project by the WHO, SEARO, New Delhi.

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# Indian Academy of Pediatrics

## List of Essential Medicines for Children of India

<b>1. ANESTHETICS</b>	
<b>1.1 General anesthetics and oxygen</b>	
<b>1.1.1 Inhalational Medicines</b>	
halothane	Inhalation
nitrous oxide	Inhalation
oxygen (medicinal gas).	Inhalation
<b>1.1.2 Injectable medicines</b>	
ketamine	<b>Injection:</b> 50 mg (as hydrochloride)/ml in 10 ml vial.
<b>1.2 Local anesthetics</b>	
lidocaine	<b>Injection:</b> 1%; 2% (hydrochloride) in vial.  <b>Injection for spinal anesthesia:</b> 5% (hydrochloride) in 2 ml ampoule to be mixed with 7.5% glucose solution.  <b>Topical forms:</b> 2%; 4%; 5%(hydrochloride).
lidocaine + epinephrine (adrenaline)	<b>Dental cartridge:</b> 2% (hydrochloride) + epinephrine 1:80,000.  <b>Injection:</b> 1%; 2% (hydrochloride or sulfate) + epinephrine 1:200,000 in vial.
<b>1.3 Preoperative medication and sedation for short term procedures</b>	
atropine	<b>Injection:</b> 0.6 mg (sulfate) in 1 ml ampoule.
midazolam	<b>Oral liquid:</b> 2 mg/ml.  <b>Injection:</b> 1 mg/ml.



<b>2. ANALGESICS, ANTIPYRETICS, NON-STEROIDAL ANTI-INFLAMMATORY MEDICINES (NSAIMs)</b>	
<b>2.1 Non-opioids and non-steroidal anti-inflammatory medicines (NSAIMs)</b>	
ibuprofen	<b>Oral liquid:</b> 100 mg/5 ml. <b>Tablet:</b> 200 mg.
paracetamol	<b>Oral liquid:</b> 125 mg/5 ml; 250 mg/5 ml. <b>Tablet:</b> 100 mg; 250 mg.
<b>2.2 Opioid analgesics</b>	
morphine	<b>Tablet:</b> 10 mg (as sulfate). <b>Injection:</b> 10 mg (as hydrochloride or sulfate) in 1 ml ampoule.
<b>3. ANTIALLERGICS AND MEDICINES USED IN ANAPHYLAXIS</b>	
chlorphenamine	<b>Oral liquid:</b> 0.5 mg/5 ml; 2 mg/5 ml (hydrogen maleate). <b>Tablet:</b> 4 mg (hydrogen maleate). <b>Injection:</b> 10 mg (hydrogen maleate) in 1 ml ampoule.
dexamethasone	<b>Injection:</b> 4 mg dexamethasone phosphate (as disodium salt) in 1 ml ampoule.
epinephrine (adrenaline)	<b>Injection:</b> 1 mg (as hydrochloride or hydrogen tartrate) in 1 ml ampoule (1:1000).
hydrocortisone	<b>Powder for injection:</b> 100 mg (as sodium succinate) in vial.
prednisolone	<b>Oral liquid:</b> 3 mg/ml; 5 mg/ml. <b>Tablet:</b> 5 mg; 10 mg.

<b>4. ANTIDOTES AND OTHER SUBSTANCES USED IN POISONINGS</b>	
<b>4.1 Non-specific</b>	
charcoal, activated	<b>Powder:</b> 25 g; 50 g.
<b>4.2 Specific</b>	
atropine	<b>Injection:</b> 0.6 mg (as sulfate) in 1 ml ampoule.
naloxone	<b>Injection:</b> 200 micrograms/ml; 400 micrograms/ml (hydrochloride) in 1 ml ampoule.
pralidoxime	<b>Injection:</b> 25 mg/ml (as chloride, iodide or mesylate) in 20 ml vial.
<b>5. ANTICONVULSANTS/ ANTIEPILEPTICS</b>	
carbamazepine	<b>Oral liquid:</b> 100 mg/5 ml. <b>Tablet (chewable):</b> 100 mg. <b>Tablet:</b> 100 mg; 200 mg.
diazepam	<b>Injection:</b> 5 mg/ml.  <b>Rectal:</b> 1 mg/ml; 2 mg/ml.
lorazepam	<b>Tablet:</b> 1 mg; 2 mg.  <b>Injection:</b> 2 mg/ml in 1 ml ampoule.
midazolam	<b>Injection:</b> 1 mg/ml.
phenobarbital	<b>Oral liquid:</b> 15 mg/5 ml.  <b>Tablet:</b> 10 mg; 30 mg; 100 mg.  <b>Injection:</b> 200 mg/ml (sodium salt).
phenytoin	<b>Oral liquid:</b> 25 mg/5 ml.  <b>Solid oral dosage form:</b> 25 mg; 50 mg; 100 mg (sodium salt).  <b>Tablet (chewable):</b> 50 mg.  <b>Injection:</b> 50 mg/ml in 5 ml vial (sodium salt).

valproic acid (sodium valproate)	<b>Oral liquid:</b> 200 mg/5 ml. <b>Tablet (crushable):</b> 100 mg. <b>Tablet (enteric coated):</b> 200 mg; 300 mg.
<b>6. ANTI-INFECTIVE MEDICINES</b>	
<b>6.1 Anthelmintics</b>	
<b>6.1.1 Intestinal anthelmintics</b>	
albendazole	<b>Suspension:</b> 200 mg/5 ml. <b>Tablet (chewable) :</b> 400 mg.
pyrantel	<b>Oral liquid:</b> 50 mg (as embonate or pamoate)/ml. <b>Tablet (chewable):</b> 250 mg (as embonate).
<b>6.1.2 Antifilarials</b>	
diethylcarbamazine	<b>Oral liquid:</b> 50 mg/5 ml. <b>Tablet:</b> 50 mg; 100 mg (as dihydrogen citrate).
<b>6.2 Antibacterials</b>	
<b>6.2.1 Beta Lactam medicines</b>	
amoxicillin	<b>Powder for oral liquid:</b> 125 mg (as trihydrate)/5 ml; 250 mg (as trihydrate)/5 ml. <b>Tablet (dispersible, scored):</b> 250 mg. <b>Solid oral dosage form:</b> 250 mg; 500 mg (as trihydrate).

amoxicillin + clavulanic acid	<p><b>Oral liquid:</b> 200 mg amoxicillin + 28.5 mg clavulanic acid/5 ml.</p> <p><b>Solid oral dosage form:</b> 500 mg amoxicillin (as trihydrate) + 125 mg clavulanic acid (as potassium salt).</p> <p><b>Tablet (dispersible):</b> 200 mg amoxicillin + 28.5 mg clavulanic acid.</p>
ampicillin	<b>Powder for injection:</b> 100 mg; 250 mg; 500 mg; (as sodium salt) in vial.
benzathine benzylpenicillin	<b>Powder for injection:</b> 900 mg benzylpenicillin (= 1.2 million IU) in 5 ml vial; 1.44 g benzylpenicillin (= 2.4 million IU) in 5 ml vial.
benzylpenicillin	<b>Powder for injection:</b> 600 mg (= 1 million IU) in 5 ml vial; 3 g (= 5 million IU) in 5 ml vial.
cefadroxil	<p><b>Powder for oral liquid:</b> 125 mg/5 ml; 250 mg/5 ml (anhydrous).</p> <p><b>Tablet (dispersible):</b> 250 mg (as monohydrate).</p>
ceftriaxone	<b>Powder for injection:</b> 250 mg; 1 g (as sodium salt) in vial.
procaine benzylpenicillin	<b>Powder for injection:</b> 1 g (=1 million IU); 3 g (=3 million IU) in 5 ml vial.
<b>6.2.2 Other antibacterials</b>	
azithromycin	<p><b>Oral liquid:</b> 100 mg/5 ml; 200 mg/5 ml.</p> <p><b>Tablet (dispersible):</b> 100 mg.</p>
ciprofloxacin	<p><b>Oral liquid:</b> 250 mg/5 ml (anhydrous).</p> <p><b>Tablet (dispersible):</b> 100 mg.</p> <p><b>Tablet:</b> 250 mg (as-hydrochloride).</p> <p><b>Solution for IV infusion:</b> 2 mg/ml in 100 ml bag/bottle</p>
gentamicin	<b>Injection:</b> 10 mg; 40 mg (as sulfate)/ml in 2 ml vial.

metronidazole	<b>Oral liquid:</b> 200 mg (as benzoate)/5 ml. <b>Tablet:</b> 200 mg; 400 mg. <b>Injection:</b> 500 mg in 100 ml vial for infusion.
sulfamethoxazole + trimethoprim	<b>Oral liquid:</b> 200 mg + 40 mg/5 ml. <b>Tablet:</b> 100 mg + 20 mg; 400 mg + 80 mg. <b>Injection:</b> 80 mg + 16 mg/ml in 5 ml ampoule.
<b>6.2.3 Antileprosy medicines</b>	
clofazimine	<b>Capsule:</b> 50 mg; 100 mg.
dapsone	<b>Tablet:</b> 25 mg; 50 mg.
rifampicin	<b>Oral liquid:</b> 20 mg/ml. <b>Oral dosage form:</b> 75 mg; 150 mg.
<b>6.2.4 Antituberculosis medicines</b>	
The use of fixed dose combi-packs as per the RNTCP guidelines for children are recommended.	
ethambutol	<b>Tablet:</b> 200 mg; 400 mg (hydrochloride).
isoniazid	<b>Oral liquid:</b> 100 mg/5 ml. <b>Tablet:</b> 75 mg; 150 mg. <b>Tablet (scored):</b> 50 mg.
pyrazinamide	<b>Oral liquid:</b> 50 mg/ml. <b>Tablet:</b> 250 mg; 500 mg. <b>Tablet (dispersible):</b> 150 mg. <b>Tablet (scored):</b> 150 mg.
rifampicin	<b>Oral liquid:</b> 20 mg/ml. <b>Oral dosage form:</b> 75 mg; 150 mg.
streptomycin	<b>Injection:</b> 750 mg in vial.

<b>6.3 Antifungal medicines</b>	
fluconazole	<b>Oral dosage form:</b> 50 mg; 100 mg. <b>Oral liquid:</b> 5 mg/ml. <b>Injection:</b> 2 mg/ml in vial.
<b>6.4 Antiviral medicines</b>	
<b>6.4.1 Antiretrovirals</b>	
<b>6.4.1.1 Nucleoside/Nucleotide reverse transcriptase inhibitors</b>	
abacavir (ABC)	<b>Tablet:</b> 300 mg (as sulfate).
didanosine (ddl)	<b>Tablet (buffered chewable, dispersible):</b> 100 mg; 200 mg; 250 mg.
lamivudine (3TC)	<b>Oral liquid:</b> 50 mg/5 ml; 150 mg/5 ml. <b>Tablet:</b> 100 mg; 150 mg.
zidovudine (ZDV or AZT)	<b>Oral dosage form:</b> 100 mg; 300 mg. <b>Oral liquid:</b> 50 mg/5 ml. <b>Solution for IV infusion injection:</b> 10 mg/ml in 20 ml vial.
<b>6.4.1.2 Non-nucleoside reverse transcriptase inhibitors</b>	
efavirenz (EFV or EFZ)	<b>Oral liquid:</b> 150 mg/5 ml. <b>Capsule:</b> 50 mg; 200 mg. <b>Tablet:</b> 200 mg.* *Not recommended for children below 3 years of age.
nevirapine (NVP)	<b>Oral liquid:</b> 50 mg/5 ml. <b>Solid oral dosage form:</b> 200 mg.
<b>6.4.1.3 Protease inhibitors</b>	
atazanavir	<b>Oral dosage form:</b> 100 mg; 150 mg (as-sulfate).
ritonavir	<b>Capsule:</b> 100 mg.

<b>6.4.1.4 Fixed- dose combinations</b>	
lopinavir + ritonavir (LPV/r)	<b>Tablet :</b> 100 mg + 25 mg.
stavudine + lamivudine	<b>Tablet (dispersible):</b> 6 mg + 30 mg.
stavudine + lamivudine + nevirapine	<b>Tablet (dispersible):</b> 6 mg + 30 mg + 50 mg.
zidovudine + lamivudine	<b>Tablet:</b> 60 mg + 30 mg.
zidovudine + lamivudine + nevirapine	<b>Tablet (dispersible):</b> 60 mg + 30 mg + 50 mg.
<b>6.5 Antiprotozoal medicines</b>	
<b>6.5.1 Antiamoebic and anti giardiasis medicines</b>	
diloxanide	<b>Tablet:</b> 250 mg (furoate).
metronidazole	<b>Oral liquid:</b> 200 mg (as benzoate)/5 ml.  <b>Tablet:</b> 200 mg.  <b>Injection:</b> 500 mg in 100 ml vial for infusion.
<b>6.5.2 Antileishmaniasis medicines</b>	
amphotericin B	<b>Injection:</b> 50 mg/ml.
pentamidine isethionate	<b>Injection:</b> 200 mg (powder for injection).
sodium stibogluconate	<b>Injection:</b> 100 mg/ml.
<b>6.5.3 Antimalarial medicines</b>	
<b>6.5.3.1 For curative treatment</b>	
chloroquine*	<b>Oral liquid:</b> 50 mg (as phosphate or sulfate)/5 ml; 50 mg/10 ml. <b>Tablet:</b> 100 mg; 150 mg (as phosphate or sulfate).  <b>Injection:</b> 40 mg/ml.  * For use only for the treatment of <i>P.vivax</i> infection.
primaquine*	<b>Tablet:</b> 2.5 mg; 7.5 mg (as diphosphate).  * Only to achieve radical cure of <i>P.vivax</i> and <i>P.ovale</i> infections.

quinine	<p><b>Suspension:</b> 150 mg/5 ml.</p> <p><b>Tablet:</b> 100 mg, 300 mg (quinine sulfate) or 300 mg (quinine bisulfate).</p> <p><b>Injection:</b> 300 mg (quinine hydrochloride)/ml in 2 ml ampoule.</p>
<b>Fixed- dose combinations</b>	
artemether + lumefantrine*	<p><b>Dry syrup:</b> 40 mg + 240 mg/5 ml.</p> <p><b>Tablet:</b> 20 mg + 120 mg.</p> <p><b>Tablet (dispersible):</b> 20 mg + 120 mg.</p> <p>* Not recommended in children below 5 kg.</p>
artesunate + sulfadoxine + pyrimethamine	<b>Tablet:</b> 75 mg + 125 mg + 6.25 mg.
<b>6.5.3.2 For prophylaxis</b>	
doxycycline*	<p><b>Tablet:</b> 100 mg.</p> <p>* Not recommended in children below 8 years of age.</p>
<b>7. ANTIMIGRAINE MEDICINES</b>	
<b>7.1 For treatment of acute attack</b>	
ibuprofen	<p><b>Oral liquid:</b> 100 mg/5 ml.</p> <p><b>Tablet:</b> 200 mg.</p>
paracetamol	<p><b>Oral liquid:</b> 125 mg/5 ml; 250 mg/5 ml.</p> <p><b>Tablet:</b> 100 mg; 250 mg.</p>
<b>7.2 For prophylaxis</b>	
propranolol	<b>Tablet:</b> 20 mg; 40 mg (as hydrochloride).



<b>8. ANTINEOPLASTIC MEDICINES</b>	
<b>8.1 Cytotoxic medicines</b> Medicines listed below should be used according to protocols for treatment of individual diseases.	
cyclophosphamide	<b>Powder for injection:</b> 500 mg in vial.
daunorubicin	<b>Powder for injection:</b> 50 mg (hydrochloride) in vial.
mercaptopurine	<b>Tablet:</b> 50 mg.
methotrexate	<b>Powder for injection:</b> 50 mg (as sodium salt) in vial. <b>Tablet:</b> 2.5 mg (as sodium salt).
methylprednisolone	<b>Injection:</b> 40 mg/ml (as sodium succinate) in 1 ml single dose vial and 5 ml multidose vials.
prednisolone	<b>Oral liquid:</b> 5 mg/ml.
vincristine	<b>Powder for injection:</b> 1 mg; 5 mg (sulfate) in vial.
<b>9. MEDICINES AFFECTING THE BLOOD</b>	
<b>9.1 Antianaemia medicines</b>	
hydroxyurea	<b>Tablet:</b> 250 mg.
iron + folic acid	<b>Oral liquid:</b> equivalent to 20 mg iron (as sulfate) and 100 micrograms folic acid/ml. <b>Tablet:</b> equivalent to 20 mg iron (as sulfate) and 100 micrograms folic acid.
<b>10. CARDIOVASCULAR MEDICINES</b>	
<b>10.1 Medicines used in heart failure</b>	

digoxin	<b>Oral liquid:</b> 50 micrograms/ml. <b>Tablet:</b> 62.5 micrograms; 250 micrograms. <b>Injection:</b> 250 micrograms/ml in 2 ml ampoule.
dopamine	<b>Injection:</b> 40 mg (hydrochloride)/ml in 5 ml vial.
furosemide	<b>Oral liquid:</b> 10 mg/ml. <b>Tablet:</b> 10 mg, 20 mg. <b>Injection:</b> 10 mg/ml in 2 ml ampoule.
spironolactone	<b>Oral Liquid:</b> 2 mg/ml; 5 mg/ml. <b>Tablet:</b> 25 mg.
<b>11. DERMATOLOGICAL MEDICINES (topical)</b>	
<b>11.1 Antifungal medicines</b>	
miconazole	<b>Cream or ointment:</b> 2% (nitrate).
<b>11.2 Anti-infective medicines</b>	
silver sulfadiazine	<b>Cream:</b> 1%.
<b>11.3 Anti-inflammatory and antipruritic medicines</b>	
calamine	<b>Lotion:</b> 8%.
hydrocortisone	<b>Cream or ointment:</b> 0.25%, 1% (acetate).
<b>11.4 Scabicides and pediculicides</b>	
benzyl benzoate	<b>Lotion:</b> 25%.
permethrin	<b>Cream:</b> 5%. <b>Lotion:</b> 1%.
<b>12. DISINFECTANTS AND ANTISEPTICS</b>	
<b>12.1 Antiseptics</b>	
polyvidone iodine	<b>Solution:</b> 5%, 10%.
<b>12.2 Disinfectants</b>	

chloroxylenol	<b>Solution:</b> 4.8%.
<b>13. DIURETICS</b>	
furosemide	<b>Oral liquid:</b> 10 mg/ml. <b>Tablet:</b> 10 mg; 20 mg. <b>Injection:</b> 10 mg/ml in 2 ml ampoule.
mannitol	<b>Injection:</b> 10%, 20% in 100 ml.
spironolactone	<b>Oral Liquid:</b> 2 mg/ml; 5 mg/ml. <b>Tablet:</b> 25 mg.
<b>14. GASTROINTESTINAL MEDICINES</b>	
<b>14.1 Antiemetic medicines</b>	
metoclopramide	<b>Oral Liquid:</b> 1 mg/ml. <b>Tablet:</b> 5 mg; 10 mg (hydrochloride). <b>Injection:</b> 5 mg (hydrochloride)/ml in 2 ml ampoule.
<b>14.2 Antiulcer medicines</b>	
omeprazole	<b>Granules for oral liquid:</b> 20 mg in 40 mg sachets. <b>Solid oral dosage form:</b> 10 mg; 20 mg.
<b>14.3 Medicines used in diarrhea</b>	
<b>14.3.1 Oral rehydration</b>	

oral rehydration salts	glucose: 75 mEq/l 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 dehydrate*: 2.9 g/l * trisodium citrate dihydrate may be replaced by sodium hydrogen carbonate (sodium-bicarbonate) 2.5 g/l. <b>Powder for dilution in 1 l.</b>
<b>14.3.2 Medicines for diarrhoea in children</b>	
zinc sulphate	<b>Tablet (dispersible, scored):</b> 20 mg (elemental zinc).
<b>15. HORMONES, OTHER ENDOCRINE MEDICINES</b>	
<b>14.1 Adrenal hormones and synthetic substitutes</b>	
hydrocortisone	<b>Tablet:</b> 5 mg; 10 mg.  <b>Injection:</b> 25 mg/ml in 4 ml vial.
<b>15.2 Insulins and other antidiabetic agents</b>	
insulin injection (soluble)	<b>Injection:</b> 40 IU/ml in 10 ml vial.
insulin, intermediate acting	<b>Injection:</b> 40 IU/ml in 10 ml vial (as compound insulin zinc suspension or isophane insulin).
<b>15.3 Thyroid hormones and antithyroid medicines</b>	
levothyroxine	<b>Tablet (scored):</b> 25 micrograms, 50 micrograms (sodium salt).
<b>16. IMMUNOLOGICALS</b>	
<b>16.1 Sera and immunoglobulins</b>	
anti-snake venom	<b>Injection:</b> Polyvalent lyophilized powder for reconstitution in 10 ml.

antitetanus immunoglobulin (human)	<b>Injection:</b> 250 IU; 500 IU; 1500 IU in vial.
rabies immunoglobulin (equine)	<b>Injection:</b> 1500 IU/5 ml.
<b>16.2 Vaccines</b>	
BCG vaccine	As per National Immunization Schedule guidelines.
DPT vaccine	As per National Immunization Schedule guidelines.
hepatitis B vaccine	As per National Immunization Schedule guidelines.
measles vaccine	As per National Immunization Schedule guidelines.
oral polio vaccine	As per National Immunization Schedule guidelines.
rabies vaccine	<b>Injection:</b> 2.5 IU/ml (Human Diploid Cell Vaccine) lyophilized powder for reconstitution.
tetanus toxoid vaccine	As per National Immunization Schedule guidelines.
<b>17. MUSCLE RELAXANTS (PERIPHERALLY-ACTING) AND CHOLINESTERASE INHIBITORS</b>	
neostigmine	<b>Injection:</b> 0.5 mg/ml.
suxamethonium	<b>Injection:</b> 50 mg/ml.
<b>18. OPHTHALMOLOGICAL PREPARATIONS</b>	
<b>18.1 Anti-infective agents</b>	
gentamicin	<b>Solution (eye drops):</b> 0.3 % (sulfate).
<b>18.2 Anti-inflammatory agents</b>	
prednisolone	<b>Solution (eye drops):</b> 1% (sodium phosphate).
<b>18.3 Mydriatics</b>	
atropine	<b>Solution (eye drops):</b> 0.5%; 1% (sulfate). <b>Ointment:</b> 1%.
<b>19. MEDICINES ACTING ON THE RESPIRATORY TRACT</b>	
<b>19.1 Antiasthmatics</b>	

budesonide	<b>Inhalation (aerosol):</b> 100 micrograms per dose.
salbutamol	<b>Oral liquid:</b> 1 mg/5 ml; 2 mg/5 ml.  <b>Metered dose inhaler (aerosol):</b> 100 micrograms (as sulfate) per dose.  <b>Injection:</b> 50 micrograms (as sulfate)/ml in 5 ml ampoule.  <b>Respirator solution for use in nebulizers:</b> 5 mg (as sulfate)/ml.
<b>20. SOLUTIONS CORRECTING WATER, ELECTROLYTE AND ACID-BASE DISTURBANCES</b>	
<b>20.1 Oral</b>	
oral rehydration salts	<b>See section 14.3.1</b>
<b>20.2 Parenteral</b>	
glucose (dextrose)	<b>Injectable solution:</b> 5% (isotonic); 10% (hypertonic); 50% (hypertonic).
potassium chloride	<b>Solution for dilution:</b> 7.5% (equivalent to K <sup>+</sup> 1 mmol/ml and Cl <sup>-</sup> 1 mmol/ml); 15% (equivalent to K <sup>+</sup> 2 mmol/ml and Cl <sup>-</sup> 2 mmol/ml).
ringer lactate solution	<b>Injectable solution:</b> sodium lactate 0.32 gm, potassium chloride 0.4 gm, sodium chloride 0.6 gm, calcium chloride 0.027 gm in 100 ml solution.
sodium bicarbonate	<b>Injection:</b> 8.4% in 10 ml ampoule (equivalent to Na <sup>+</sup> 1000 mmol/l, HCO <sub>3</sub> <sup>-</sup> 1000 mmol/l).
sodium chloride (normal saline)	<b>Injectable solution:</b> 0.9% isotonic (equivalent to Na <sup>+</sup> 154 mmol/l and Cl <sup>-</sup> 154 mmol/l).
sodium chloride (half-normal saline) + glucose(dextrose)	<b>Injectable solution:</b> 0.45% sodium chloride and 5% dextrose.
<b>20.3 Miscellaneous</b>	
water for injection	5 ml; 10 ml ampoules.

<b>21. VITAMINS AND MINERALS</b>	
cholecalciferol	<b>Solid oral dosage form:</b> 400 IU; 1000 IU. <b>Injection:</b> 300,000 IU; 600,000 IU.
multivitamin*	<b>Tablet:</b> containing vitamin B1, vitamin B2, vitamin B6, niacinamide, pantothenate, folic acid, ascorbic acid, and biotin. *strengths of individual components to be chosen according to local availability.
vitamin A	<b>Oral oily solution:</b> 100,000 IU (as palmitate)/ml in multidose dispenser. <b>Tablet:</b> 50,000 IU. <b>Capsule:</b> 50,000 IU; 100,000 IU (as palmitate).
vitamin K	<b>Tablet:</b> 10 mg. <b>Injection:</b> 1 mg/ml (as phytomenadione).
<b>22. EAR, NOSE AND THROAT CONDITIONS IN CHILDREN</b>	
budesonide	<b>Nasal spray:</b> 50 micrograms per dose.
ciprofloxacin	<b>Topical:</b> 0.3% drops (as hydrochloride).
xylometazoline	<b>Nasal drops:</b> 0.05% in 5 ml.

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