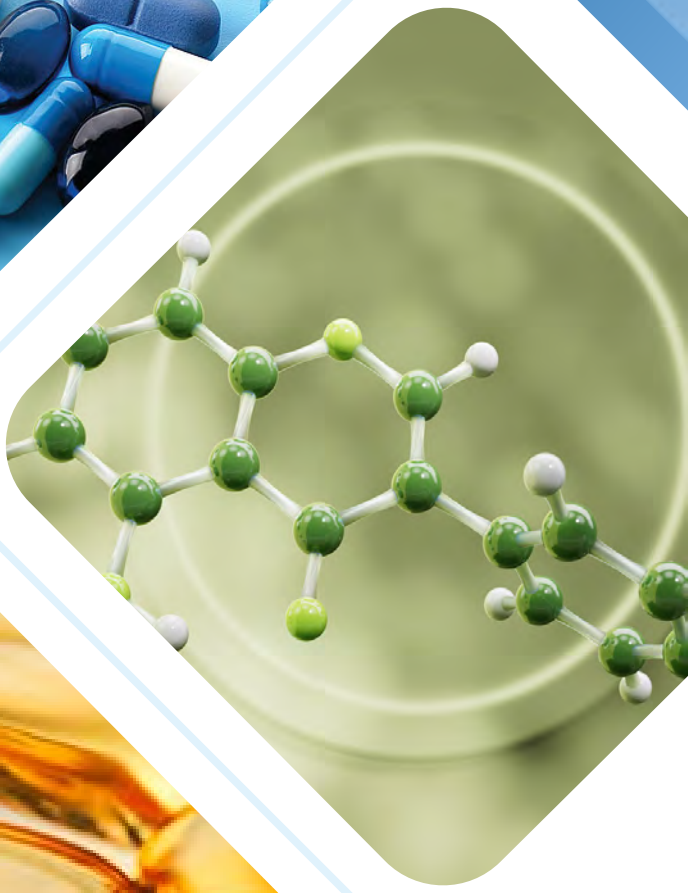
Therapeutic *Index*

Practical guidelines intended for physicians, pharmacists, nurses and medical auxiliaries



ANGAV
INDUSTRIA FARMACEUTICA, LDA

Oral Drugs

Abacavir = ABC
Acetaminophen
Acetylsalicylic acid = ASA
Aciclovir
Albendazole
Albuterol
Albuterol aerosol
Albuterol nebuliser solution
Aluminium hydroxide
Amitriptyline
Amodiaquine = AQ
Amoxicillin
Amoxicillin/Clavulanic acid
Artemether/Lumefantrine = AL
Artesunate = AS
Artesunate/Amodiaquine = AS/AQ
Artesunate + Sulfadoxine/Pyrimethamine = AS + SP
Ascorbic acid
Aspirin
Azithromycin
AZT/3TC
AZT/3TC/NVP
Beclometasone aerosol
Biperiden
Bisacodyl
Bisoprolol
Butylscopolamine
Cabergoline
Calcium folinate
Carbamazepine
Cefalexin
Cefixime
Charcoal (activated)
Chloramphenicol
Chloroquine
Chlorphenamine = Chlorpheniramine
Chlorpromazine
Cimetidine
Ciprofloxacin
Clindamycin
Clomipramine
Cloxacillin
Co-amoxiclav
Coartemether
Codeine
Colecalciferol
Cotrimoxazole
Dapsone
Desogestrel
Diazepam
Diethylcarbamazine
Digoxin
Dihydroartemisinin/Piperaquine = DHA/PPQ
Dipyrone
Doxycycline
Efavirenz = EFV = EFZ
Enalapril
Ergocalciferol
Erythromycin
Ethambutol = E
Ethinylestradiol/Levonorgestrel
Ferrous salts
Ferrous salts/Folic acid
Fluconazole
Flucytosine
Fluoxetine
Folic acid
Folinic acid
Fosfomycin trometamol
Furosemide
Glibenclamide
Glyceryl trinitrate
Griseofulvin
Haloperidol
Hydrochlorothiazide
Hyoscine butylbromide
Ibuprofen
Ipratropium nebuliser solution
Iodized oil
Isoniazid = H
Isosorbide dinitrate
Itraconazole
Ivermectin
Labetalol
Lactulose
Lamivudine = 3TC
Levodopa/Carbidopa
Levonorgestrel

Levonorgestrel (emergency contraception)
Loperamide
Lopinavir/Ritonavir = LPV/r
Mebendazole
Mefloquine = MQ
Metamizole
Methyldopa
Metoclopramide
Metronidazole
Miconazole gel
Mifepristone = RU486
Misoprostol
Morphine immediate-release (MIR)
Morphine sustained-release (MSR)
Multivitamins
Nevirapine = NVP
Niclosamide
Nicotinamide
Nifedipine
Nitrofurantoin
Nitroglycerin
Noramidopyrine
Nystatin
Omeprazole
Oral rehydration salts = ORS
Paracetamol
Paroxetine
Penicillin V
Phenobarbital
Phenoxymethylpenicillin
Phenytoin
Potassium chloride immediate-release
Potassium chloride sustained-release
Praziquantel
Prednisolone and Prednisone
Promethazine
Pyrantel
Pyrazinamide = Z
Pyridoxine
Pyrimethamine
Quinine
ReSoMal
Retinol
Rifampicin = R
Risperidone
Ritonavir = RTV
Salbutamol
Salbutamol aerosol
Salbutamol nebuliser solution
Sodium valproate
Spironolactone
Sulfadiazine
Sulfadoxine/Pyrimethamine = SP
Sulfamethoxazole (SMX)/Trimethoprim (TMP)
Thiamine
Tinidazole
Tramadol
Tranexamic acid
Triclabendazole
Trinitrin
Valproic acid
Vitamin A
Vitamin B complex
Vitamin B1
Vitamin B3
Vitamin B6
Vitamin B9
Vitamin C
Vitamin D2
Vitamin D3
Vitamin PP
Zidovudine = AZT
Zidovudine/Lamivudine
Zidovudine/Lamivudine/Nevirapine
Zinc sulfate

Note. : All Product will be supplied with respective generic name or brand name.

ABACAVIR = ABC

Prescription under medical supervision

Therapeutic action
– Antiretroviral, HIV-1 and HIV-2 nucleoside reverse transcriptase inhibitor

Indications
– HIV-1 or HIV-2 infection, in combination with other antiretroviral drugs

Presentation
– 60 mg dispersible tablet
– 300 mg tablet

Dosage
– Child less than 25 kg: 16 mg/kg/day in 2 divided doses, without exceeding 600 mg/day
– Child ⩾ 25 kg and adult: 600 mg/day in 2 divided doses

Duration
– Depending on the efficacy and tolerance of abacavir.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe hepatic impairment or history of severe intolerance to abacavir that led to discontinuation of treatment.
– May cause:
  • hypersensitivity reactions: skin rash, gastrointestinal disturbances (nausea, vomiting, diarrhoea, abdominal pain), cough, dyspnoea, malaise, headache, lethargy, oedema, lymphadenopathy, hypotension, myalgia, arthralgia, renal impairment;
  • lactic acidosis and hepatic disorders.

  In all these cases, stop taking abacavir immediately and permanently.
– *Pregnancy: avoid, except if there is no therapeutic alternative.*

Remarks
– Tablets are not scored. When half a tablet is required, use a cutter or a tablet cutter to cut the tablet into two equal parts.
– Also comes in fixed-dose combination tablets containing abacavir-lamivudine and abacavir-zidovudine-lamivudine.
– Also comes in 20 mg/ml oral solution.
– *Storage: below 25°C*

ACETYLSALICYLIC ACID = ASPIRIN = ASA

Prescription under medical supervision

Therapeutic action
– Analgesic, antipyretic, non steroidal anti-inflammatory (NSAID)
– Platelet antiaggregant (at low dose)

Indications
– Mild pain, fever
– Secondary prevention of severe pre-eclampsia

Presentation
– 300 mg and 500 mg tablets
– 75 mg enteric coated tablet

Dosage and duration
– *Pain and fever*
  Adolescent over 16 years and adult: 300 mg to 1 g every 4 to 6 hours, without exceeding 4 g/day, for 1 to 3 days
– *Prevention of pre-eclampsia*
  75 mg once daily from the 12th to the 32nd week of gestation

Contra-indications, adverse effects, precautions
– Do not administer to patients with allergy to aspirin and NSAID, peptic ulcer, coagulation disorders, haemorrhage, severe renal, hepatic or cardiac impairment.
– Do not administer to children for pain or fever (use paracetamol).
– Administer with caution to elderly patients or patients with asthma.
– Do not exceed indicated doses, particularly in elderly patients. Intoxications are severe, possibly fatal.
– May cause:
  • allergic reactions, epigastric pain, peptic ulcer, haemorrhage;
  • dizziness, tinnitus (early signs of overdose);
  • Reye's syndrome in children (encephalopathy and severe hepatic disorders).
  For all cases above, stop aspirin.
– Do not combine with methotrexate, anticoagulants and NSAID.
– Monitor combination with insulin (increased hypoglycaemia) and corticosteroids.
– *Pregnancy:*
  •pain and fever: avoid. ***Contra -indiCated*** *from the beginning of the 6th month. Use paracetamol.*
  •prevention of pre-eclampsia: do not exceed 75 mg/day.
– *Breast-feeding: avoid. Use paracetamol.*

Remarks
– Take during meals, preferably with a lot of water.
– Do not crush enteric coated tablets.
– Aspirin may be administered in secondary prevention of atherothrombosis, at a dose of 75 to 300 mg daily.
– *Storage: below 25°C–*
  Do not use if tablets have a strong smell of vinegar. A slight vinegar smell is always present.

ACICLOVIR

Prescription under medical supervision

Therapeutic action

– Antiviral active against herpes simplex virus and varicella zoster virus

Indications

– Treatment of recurrent or extensive oral and oesophageal herpes in immunocompromised patients
– Treatment of herpetic kerato-uveitis
– Treatment of genital herpes
– Secondary prophylaxis of herpes in patients with frequent and/or severe recurrences
– Treatment of severe forms of zoster: necrotic or extensive forms, facial or ophthalmic zoster

Presentation

– 200 mg and 800 mg tablets
Also comes in 40 mg/ml oral suspension.

Dosage and duration

– *Treatment of recurrent or extensive oral and oesophageal herpes in immunocompromised patients, treatment of herpetic kerato-uveitis*
Child under 2 years: 200 mg 5 times per day for 7 days
Child over 2 years and adult: 400 mg 5 times per day for 7 days
– *Treatment of genital herpes*
Child over 2 years and adult: 400 mg 3 times per day for 7 days; in immunocompromised patients, continue treatment until clinical resolution
– *Secondary prophylaxis of herpes in patients with frequent and/or severe recurrences*
Child under 2 years: 200 mg 2 times per day
Child over 2 years and adult: 400 mg 2 times per day
– *Treatment of severe forms of zoster*
Adult: 800 mg 5 times per day for 7 days

Contra-indications, adverse effects, precautions

– Do not administer to patients with hypersensitivity to aciclovir.
– May cause: headache, skin rash, allergic reactions, gastrointestinal disturbances, raised transaminases, neurologic disorders in patients with renal impairment and elderly patients; rarely, haematological disorders.
– Reduce dosage in patients with renal impairment.
– Drink a lot of liquid during treatment.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks

– For the treatment of herpes simplex, aciclovir should be started as soon as possible (within 96 hours) after the appearance of lesions to reduce severity and duration of infection.
– For the treatment of herpes zoster, aciclovir should be start preferably within 72 hours after the appearance of lesions. Aciclovir administration does not reduce the likelihood of developing zoster-associated pain but reduces the overall duration of this pain.
– *Storage: below 25°C*–

COTRIMOXAZOLE
= SULFAMETHOXAZOLE (SMX)/TRIMETHOPRIM (TMP)

Prescription under medical supervision

Therapeutic action
- Combination of a sulfonamide with another antibacterial

Indications
- First-line treatment of pneumocystosis and isosporiasis
- Prophylaxis of pneumocystosis, toxoplasmosis and isosporiasis
- Brucellosis (when doxycycline is contra-indicated)

Presentation
- 400 mg SMX + 80 mg TMP and 800 mg SMX + 160 mg TMP tablets
- 100 mg SMX + 20 mg TMP tablet for paediatric use
- 200 mg SMX + 40 mg TMP/5 ml oral suspension

Dosage and duration
- *Treatment of pneumocystosis*
  Child: 100 mg SMX + 20 mg TMP/kg/day in 2 divided doses
  Adult: 4800 SMX + 960 TMP/day in 3 divided doses
- *Treatment of isosporiasis*
  Adult: 3200 mg SMX + 640 mg TMP/day in 2 divided doses
- *Prophylaxis of pneumocystosis, toxoplasmosis and isosporiasis*
  Child: 50 mg SMX + 10 mg TMP/kg once daily, as long as necessary
  Adult: 800 mg SMX + 160 mg TMP once daily, as long as necessary
- *Brucellosis*
  Child: 40 mg SMX + 8 mg TMP/kg/day in 2 divided doses
  Adult: 1600 mg SMX + 320 mg TMP/day in 2 divided doses

Duration
- *Pneumocystosis*: 14 to 21 days depending on severity; *isosporiasis*: 10 days; *brucellosis*: 6 weeks

Contra-indications, adverse effects, precautions
- Do not administer to children under 1 month.
- Do not administer to sulfonamide-allergic patients; patients with severe renal or hepatic impairment.
- May cause:
  - gastrointestinal disturbances, hepatic or renal disorders (crystalluria, etc.), metabolic disorders (hyperkalaemia); neuropathy, photosensitivity, haemolytic anaemia in patients with G6PD deficiency;
  - allergic reactions (fever, rash, etc.) sometimes severe (Lyell's and Stevens-Johnson syndromes, haematological disorders, etc.). In these cases, stop treatment immediately;
  - megaloblastic anaemia due to folinic acid deficiency in patients receiving prolonged treatment (in this event, administer calcium folinate).
- Adverse effects occur more frequently in patients with HIV infection.
- In the event of prolonged treatment, monitor blood count if possible.
- Do not combine with methotrexate and phenytoin.
- Avoid combination with drugs inducing hyperkalaemia: potassium, spironolactone, enalapril, NSAIDs, heparin (increased risk of hyperkalaemia).
- Monitor combination with zidovudine (increased haematotoxicity).
- Drink a lot of liquid during treatment.
- *Pregnancy: no contra-indication. However, avoid using during the last month of pregnancy (risk of jaundice and haemolytic anaemia in the newborn infant).*
- *Breast-feeding: avoid if premature infant, jaundice, low-birth weight, infant under one month of age. If cotrimoxazole is used, observe the infant for signs of jaundice.*

Remarks
- *Storage: below 5°C*
  Once the bottle has been opened, the oral suspension keeps for 20 days at ambient temperature or 40 days refrigerated (between 2°C and 8°C).

ALBENDAZOLE

Prescription under medical supervision

Therapeutic action
- Anthelminthic

Indications
- Ascariasis (*Ascaris lumbricoides*), enterobiasis (*Enterobius vermicularis*), hookworm infections (*Ancylostoma duodenale*, *Necator americanus*)
- Trichuriasis (Trichuris trichiura), strongyloidiasis (*Strongyloides stercoralis*)
- Trichinellosis (*Trichinella spp*)

Presentation
- 400 mg tablet

Dosage and duration
- *Ascariasis, enterobiasis, hookworm infections*
  Child over 6 months and adult: 400 mg as a single dose
  Child over 6 months but under 10 kg: 200 mg as a single dose
  In the event of enterobiasis, a second dose may be given after 2 to 4 weeks.
- *Trichuriasis, strongyloidiasis*
  Child over 6 months and adult: 400 mg once daily for 3 days
  Child over 6 months but under 10 kg: 200 mg once daily for 3 days
- *Trichinellosis*
  Child over 2 years: 10 mg/kg/day in 2 divided doses for 10 to 15 days
  Adult: 800 mg/day in 2 divided doses for 10 to 15 days

Contra-indications, adverse effects, precautions
- Do not administer to children under 6 months.
- Do not administer to patients with ocular cysticercosis.
- May cause:
  • gastrointestinal disturbances, headache, dizziness;
  • neurological disorders (headache, seizures) in patients with undiagnosed neurocysticercosis.
- *Pregnancy: avoid during the first trimester*
- *Breast-feeding: no contra-indication*

Remarks
- Tablets are to be chewed or crushed: follow manufacturer's recommendations.
- In the treatment of strongyloidiasis, ivermectin is more effective than albendazole.
- Albendazole is also used in the treatment of cutaneous larva migrans (*Ancylostoma braziliense* and *caninum*), larval cestode infections (hydatid disease, certain forms of neurocysticercosis) and in mass treatment for lymphatic filariasis (check national recommendations).
- *Storage: below 25°C* –  – 

ALUMINIUM HYDROXIDE

Therapeutic action
– Antacid

Indications
– Stomach pain associated with gastritis and peptic ulcer

Presentation
– 500 mg tablet

There are numerous preparations of aluminium and/or magnesium hydroxide and different dosages.

Dosage
– Child over 5 years: rarely indicated. When necessary: half a tablet 3 times/day
– Adult: 3 to 6 tablets/day after meals or 1 tablet during painful attacks

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– May cause: constipation (except when tablets contain magnesium salts or magnesium hydroxide).
– Decreases intestinal absorption of many drugs such as tetracycline, iron salts, isoniazid, ethambutol, chloroquine, atenolol, digoxin, fluoroquinolones, corticosteroids, indometacin, ketoconazole, thyroxine, etc. Do not administer simultaneously with these drugs, administer 2 hours apart.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Chew tablets.
– *Storage: below 25°C*

AMITRIPTYLINE

Prescription under medical supervision

Therapeutic action
- Tricyclic antidepressant with anxiolytic and sedative properties

Indications
- Neuropathic pain, often in combination with carbamazepine
- Major depression, especially when a sedative effect is required

Presentation
- 25 mg tablet

Dosage
- Adult:
  - *Neuropathic pain*: initial dose of 25 mg once daily at bedtime for one week. Increase to 50 mg once daily the following week, then 75 mg once daily at bedtime as of the third week (max. 150 mg/day).
  - *Depression*: the usual dose is 75 to 150 mg once daily (depending on efficacy and tolerance) at bedtime. The dose is also increased progressively but more rapidly, over 8 to 10 days.
- Reduce the dose by half in elderly patients and in patients with hepatic or renal impairment.

Duration
- *Neuropathic pain*: several months (3 to 6) after pain relief is obtained, then attempt to stop treatment.
- *Depression*: minimum 6 months. The treatment should be discontinued gradually (dose tapered over 4 weeks). If signs of relapse occur, increase the dose.

Contra-indications, adverse effects, precautions
- Do not administer to patients with recent myocardial infarction, arrhythmia, closed-angle glaucoma, prostate disorders.
- Administer with caution and carefully monitor use in patients > 60 years and in patients with epilepsy, chronic constipation, renal or hepatic impairment, history of bipolar disorders.
- May cause:
  - drowsiness (caution when driving/operating machinery), orthostatic hypotension, sexual dysfunction;
  - anticholinergic effects: dry mouth, blurred vision, constipation, tachycardia, disorders of micturition. These adverse effects are transitory or disappear with dose reduction. Treatment should be discontinued in the event of severe reactions (mental confusion, urinary retention, cardiac rhythm disorders);
  - psychic disorders: exacerbation of anxiety, possibility of a suicide attempt at the beginning of therapy, manic episode during treatment.
- Do not combine with another antidepressant.
- Monitor combination with CNS depressants (opioid analgesics, sedatives, H1 antihistamines, etc.), drugs known to have anticholinergic effects (atropine, chlorpromazine, promethazine, etc.), drugs which lower the seizure threshold (antispychotics, mefloquine, tramadol, etc.), lithium and other serotonergics.
- Avoid alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, decrease the dose at the end of pregnancy to avoid gastrointestinal and neurological adverse effects in the newborn infant.*
- *Breast-feeding: monitor the child for excessive somnolence.*

Remarks
- Sedative effect occurs following initial doses, analgesic effect is delayed for 7 to 10 days. For depression, it is necessary to wait 3 weeks before assessing therapeutic efficacy. This must be explained to the patient.
- *Storage: below 25°C*

AMODIAQUINE = AQ

Prescription under medical supervision

Do not administer the combination artesunate-amodiaquine as separate tablets (i.e. artesunate tablets + amodiaquine tablets). Use coformulated tablets or, if not available, co-blisters.

Therapeutic action
- Antimalarial

Indications
- Treatment of uncomplicated falciparum malaria, in combination with artesunate
- Completion treatment following parenteral therapy for severe falciparum malaria, in combination with artesunate

Presentation
- 200 mg amodiaquine hydrochloride tablet, containing 153 mg amodiaquine base

Dosage and duration
- Child and adult: 10 mg base/kg once daily for 3 days

Contra-indications, adverse effects, precautions
- Do not administer in the event of previous severe adverse reaction to treatment with amodiaquine (e.g. hypersensitivity reaction, hepatitis, leucopenia, agranulocytosis).
- Do not administer to patients taking efavirenz.
- May cause: gastrointestinal disturbances, pruritus.
- *Pregnancy: no contra-indication during the 2nd and 3rd trimester. Safety in the first trimester has not been definitely established. However, given the risks associated with malaria, the combination artesunate-amodiaquine may be used during the first trimester if it is the only effective treatment available.*
- *Breast-feeding: no contra-indication*

Remarks
- Amodiaquine should not be used for prophylaxis.
- *Storage: below 25°C –* 

AMOXICILLIN

Prescription under medical supervision

Therapeutic action
- Penicillin antibacterial

Indications
- Acute otitis media, streptococcal tonsillitis, sinusitis, bronchitis, pneumonia
- Infection due to *Helicobacter pylori* (in combination with omeprazole and metronidazole or tinidazole), leptospirosis, no severe cutaneous anthrax
- Typhoid fever (if ciprofloxacin is contra-indicated and if the strain is susceptible)
- Completion treatment following parenteral therapy with penicillins or cephalosporins

Presentation
- 250 mg and 500 mg tablets or capsules
- 250 mg dispersible scored tablet, for paediatric use
- 125 mg/5 ml powder for oral suspension, to be reconstituted with filtered water

Dosage
- *Usual dosage (e.g. leptospirosis, tonsillitis, infection due to H. pylori)*
  Child: 50 mg/kg/day in 2 divided doses
  Adult: 2 g/day in 2 divided doses

Age	Weight	125 mg/5 ml susp.	250 mg tablet	500 mg tablet
< 3 months	< 6 kg	1 tsp x 2	½ tab x 2	–
3 to < 24 months	6 to < 12 kg	2 tsp x 2	1 tab x 2	–
2 to < 8 years	12 to < 25 kg	4 tsp x 2	2 tab x 2	1 tab x 2
≥ 8 years and adult	≥ 25 kg	–	4 tab x 2	2 tab x 2

- *Severe infections (e.g. typhoid) or suspicion of resistant pneumococci (e.g. pneumonia, otitis)*
  Child: 80 to 100 mg/kg/day in 3 divided doses (max. 3 g)
  Adult: 3 g/day in 3 divided doses

Age	Weight	125 mg/5 ml susp.	250 mg tablet	500 mg tablet
< 3 months	< 6 kg	1 tsp x 3	½ tab x 3	–
3 to < 24 months	6 to < 12 kg	2 tsp x 3	1 tab x 3	–
2 to < 8 years	12 to < 25 kg	4 tsp x 3	2 tab x 3	1 tab x 3
≥ 8 years and adult	≥ 25 kg	–	4 tab x 3	2 tab x 3

Duration
- *Otitis media*: 5 days; *tonsillitis*: 6 days; *leptospirosis*: 7 days; *pneumonia, sinusitis, cutaneous anthrax*: 7 to 10 days; *H. pylori infection*: 10 to 14 days; *typhoid fever*: 14 days

Contra-indications, adverse effects, precautions
- Do not administer to penicillin-allergic patients or patients with mononucleosis.
- Administer with caution to patients allergic to cephalosporins (cross-sensitivity may occur).
- May cause: gastrointestinal disturbances, allergic reactions, sometimes severe. In the event of allergic reaction, stop treatment immediately.
- Reduce dosage in patients with severe renal impairment.
- Do not combine with methotrexate.
- *Pregnancy and breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C* –  – 
  For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

AMOXICILLIN/CLAVULANIC acid = CO-AMOXICLAV

Prescription under medical supervision

Therapeutic action

– Combination of two antibacterials. The addition of clavulanic acid to amoxicillin extends its spectrum of activity to cover beta-lactamase producing Gram-positive and Gram-negative organisms, including some Gram-negative anaerobes.

Indications

– Animal bites, if antibiotic therapy or antibiotic prophylaxis is clearly indicated
– Second line treatment of acute otitis media and acute bacterial sinusitis, when amoxicillin alone given at high dose failed
– Acute uncomplicated cystitis (no systemic signs) in girls > 2 years
– Postpartum upper genital tract infection
– Severe pneumonia: parenteral to oral switch therapy in patients treated with ceftriaxone + cloxacillin

Presentation

– The ratio of amoxicillin and clavulanic acid varies according to the manufacturer:

Ratio 8:1	– 500 mg amoxicillin/62.5 mg clavulanic acid tablet – 500 mg amoxicillin/62.5 mg clavulanic acid/5 ml powder for oral suspension
Ratio 7:1	– 875 mg amoxicillin/125 mg clavulanic acid tablet – 400 mg amoxicillin/57 mg clavulanic acid/5 ml, powder for oral suspension
Ratio 4:1	– 500 mg amoxicillin/125 mg clavulanic acid tablet – 125 mg amoxicillin/31.25 mg clavulanic acid/5 ml, powder for oral suspension

Also comes in formultions with a ratio amoxicillin/clavulanic acid of 16:1, 14:1, 6:1, 2:1.

Dosage (expressed in amoxicillin)

– *Animal bites; second line treatment of acute otitis media and acute sinusitis*
  • Child < 40 kg: 45 to 50 mg/kg/day in 2 divided doses (if using ratio 8:1 or 7:1) or in 3 divided doses (if using ratio 4:1)
  Note: the dose of clavulanic acid should not exceed 12.5 mg/kg/day or 375 mg/day.
  • Child ≥ 40 kg and adult: 1500 to 2000 mg/day depending on the formulation available:
  Ratio 8:1: 2000 mg/day = 2 tablets of 500/62.5 mg 2 times per day
  Ratio 7:1: 1750 mg/day = 1 tablet of 875/125 mg 2 times per day
  Ratio 4:1: 1500 mg/day = 1 tablet of 500/125 mg 3 times per day
  Note: the dose of clavulanic acid should not exceed 375 mg/day.

– *Acute uncomplicated cystitis in girls > 2 years*
  25 mg/kg/day in 2 divided doses (if using ratio 8:1 or 7:1 or 4:1)
  Note: the dose of clavulanic acid should not exceed 12.5 mg/kg/day or 375 mg/day.

– *Postpartum upper genital tract infection; parenteral to oral switch therapy in severe pneumonia*
  Use formulations with a ratio 8:1 or 7:1:
  • Child < 40 kg: 80 to 100 mg/kg/day in 2 or 3 divided doses
  Note: the dose of clavulanic acid should not exceed 12.5 mg/kg/day or 375 mg/day.
  • Child ≥ 40 kg and adult: 2500 to 3000 mg/day in 3 divided doses. Depending on the formulation available:
  Ratio 8:1: 3000 mg/day = 2 tablets of 500/62.5 mg 3 times per day
  Ratio 7:1: 2625 mg/day = 1 tablet of 875/125 mg 3 times per day
  Note: the dose of clavulanic acid should not exceed 375 mg/day.

Duration

- *Animal bites*: 5 to 7 days; *otitis media*: 5 days; *sinusitis*: 7 to 10 days; *cystitis*: 3 days; *upper genital tract infection*: 7 days; *parenteral to oral switch therapy in severe pneunonia*: to complete a total of 10 to 14 days of treatment.

Contra-indications, adverse effects, precautions

- Do not administer to penicillin-allergic patients and patients with history of hepatic disorders during a previous treatment with co-amoxiclav.
- Administer with caution to patients allergic to cephalosporins (cross-sensitivity may occur).
- Administer with caution to patients with hepatic impairment; reduce dosage and give every 12 to 24 hours in patients with severe renal impairment.
- May cause: gastrointestinal disturbances (mainly diarrhoea); allergic reactions sometimes severe (stop treatment immediately); jaundice and cholestatic hepatitis in the event of prolonged treatment (> 10 to 15 days).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks

- High doses of co-amoxiclav (80-100 mg/kg/day or 2.5-3 g/day) cannot be administered when using formulations of amoxicillin/clavulanic acid in a ratio of 4:1 (the content in clavulanic acid is too high). The maximum dose (expressed in amoxicillin) that can be given with these formulations is 50 mg/kg/day, without exceeding 1500 mg/day.
- Take with meals.
- *Storage: below 25°C* –  – 
  Powder for oral suspension: between 15°C and 25°C
  Once reconstituted, the oral suspension must be kept refrigerated (between 2°C and 8°C) and may be used for up to 7 days.

ARTEMETHER/LUMEFANTRINE = COARTEMETHER = AL

Prescription under medical supervision

Therapeutic action
– Antimalarial

Indications
– Treatment of uncomplicated falciparum malaria
– Completion treatment following parenteral therapy for severe falciparum malaria

Presentation
– 20 mg artemether/120 mg lumefantrine co-formulated tablet, in blister packs, for a complete treatment for one individual
  • Blister packs of 6, 12, 18 or 24 tablets, corresponding to 4 different categories of weight
  • Blister packs of 6 and 12 tablets contain dispersible tablets.
– 80 mg artemether/480 mg lumefantrine co-formulated tablet, in blister pack of 6 tablets, for a complete treatment for one individual

Dosage and duration
– The treatment is administered twice daily for 3 days. On D1, the first dose is given at 0 hour and the second dose at 8-12 hours. Subsequent doses on D2 and D3 are given twice daily (morning and evening).

Weight	20/120 mg tablet			80/480 mg tablet		
	D1	D2	D3	D1	D2	D3
5 to < 15 kg	1 tab x 2	1 tab x 2	1 tab x 2	–	–	–
15 to < 25 kg	2 tab x 2	2 tab x 2	2 tab x 2	–	–	–
25 to < 35 kg	3 tab x 2	3 tab x 2	3 tab x 2	–	–	–
≥ 35 kg	4 tab x 2	4 tab x 2	4 tab x 2	1 tab x 2	1 tab x 2	1 tab x 2

Contra-indications, adverse effects, precautions
– May cause: nausea, headache, dizziness and gastrointestinal disturbances.
– Do not combine with azole antifungals (fluconazole, itraconazole, miconazole, etc.), tricyclic antidepressants, neuroleptics (chlorpromazine, haloperidol, etc.), macrolides, quinolones, other antimalarials, beta- blockers.
– If the patient vomits within one hour of administration: repeat the full dose.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Take with meals.
– Coartemether should not be used for malaria prophylaxis.
– Lumefantrine is also called benflumetol.
– *Storage: below 25°C* –  – 
Leave tablets in blisters until use. Once a tablet is removed from its blister, it must be administered immediately.

ARTESUNATE = AS

Prescription under medical supervision

Oral artesunate must always be administered in combination with another antimalarial: artesunate-amodiaquine or artesunate-mefloquine or artesunate-sulfadoxine/pyrimethamine. These therapeutic combinations can be coformulated tablets (artesunate and the 2nd antimalarial combined in the same tablet, in blister-pack containing a complete course of treatment) or co-blistered tablets (tablets of artesunate and tablets of the 2nd antimalarial in the same blister-pack containing a complete course of treatment). Use coformulated tablets when available.

Therapeutic action
- Antimalarial

Indications
- Treatment of uncomplicated falciparum malaria
- Completion treatment following parenteral therapy for severe falciparum malaria

Presentation
- 50 mg tablet

Dosage and duration
- Child and adult: 4 mg/kg/day once daily for 3 days

Contra-indications, adverse effects, precautions
- May cause: gastrointestinal disturbances, headache and dizziness.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Artesunate should not be used for malaria prophylaxis.
- *Storage: below 25°C* –  – 

ARTESUNATE/AMODIAQUINE = AS/AQ

Prescription under medical supervision

Therapeutic action
– Antimalarial

Indications
– Treatment of uncomplicated falciparum malaria
– Completion treatment following parenteral therapy for severe falciparum malaria

Presentation
– Co-formulated tablets of artesunate (AS)/amodiaquine (AQ), in blister packs, for a complete treatment for one individual
– There are 4 different blister packs corresponding to 4 different categories of weight:
  • 25 mg AS/67.5 mg AQ base tablet, blister pack of 3 tablets
  • 50 mg AS/135 mg AQ base tablet, blister pack of 3 tablets
  • 100 mg AS/270 mg AQ base tablet, blister pack of 3 tablets
  • 100 mg AS/270 mg AQ base tablet, blister pack of 6 tablets

Dosage and duration
– Tablets are to be taken once daily for 3 days.

Weight	Tablets	D1	D2	D3
4.5 to < 9 kg	25 mg AS/67.5 mg AQ	1 tab	1 tab	1 tab
9 to < 18 kg	50 mg AS/135 mg AQ	1 tab	1 tab	1 tab
18 to < 36 kg	100 mg AS/270 mg AQ ***blister pack of 3 tab***	1 tab	1 tab	1 tab
≥ 36 kg	100 mg AS/270 mg AQ ***blister pack of 6 tab***	2 tab	2 tab	2 tab

Contra-indications, adverse effects, precautions
– Do not administer in the event of previous severe adverse reaction to treatment with amodiaquine (e.g. hypersensitivity reaction, hepatitis, leucopenia, agranulocytosis).
– Do not administer to patients taking efavirenz.
– May cause: gastrointestinal disturbances, headache, dizziness, pruritus.
– If the patient vomits within 30 minutes after administration, re-administer the full dose.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– *Storage: below 25°C* –  – 
Leave tablets in blisters until use. Once a tablet is removed from its blister, it must be administered immediately.

ARTESUNATE + SULFADOXINE/PYRIMETHAMINE = AS + SP

Prescription under medical supervision

Therapeutic action
- Antimalarial

Indications
- Treatment of uncomplicated falciparum malaria
- Completion treatment following parenteral therapy for severe falciparum malaria

Presentation
- Artesunate (AS) tablets and sulfadoxine/pyrimethamine (SP) tablets, in blister packs, for a complete treatment for one individual
- There are 4 different blister packs:
  - Child < 25 kg: blister pack with 3 tab AS 50 mg and 1 tab SP 500/25 mg
  - Child 25 to < 50 kg: blister pack with 6 tab AS 50 mg and 2 tab SP 500/25 mg
  - Child ≥ 50 kg and adult: blister pack with 12 tab AS 50 mg and 3 tab SP 500/25 mg
    or blister pack with 6 tab AS 100 mg and 3 tab SP 500/25 mg

Dosage and duration
- Artesunate is administered once daily for 3 days. Sulfadoxine/pyrimethamine is administered as a single dose on D1, with the first dose of artesunate.

Weight	Blister pack	D1	D2	D3
5 to < 10 kg	3 tab AS_{50} + 1 tab SP	½ tab AS + ½ tab SP	½ tab AS	½ tab AS
10 to < 25 kg		1 tab AS + 1 tab SP	1 tab AS	1 tab AS
25 to < 50 kg	6 tab AS_{50} + 2 tab SP	2 tab AS + 2 tab SP	2 tab AS	2 tab AS
≥ 50 kg and adult	12 tab AS_{50} + 3 tab SP	4 tab AS + 3 tab SP	4 tab AS	4 tab AS
	6 tab AS_{100} + 3 tab SP	2 tab AS + 3 tab SP	2 tab AS	2 tab AS

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to sulfonamides.
- May cause: see artesunate and sulfadoxine/pyrimethamine.
- Do not use in combination with cotrimoxazole.
- Do not give folic acid on the same day SP is administered, or within 15 days thereafter.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C* –  – 
  Leave tablets in blisters until use. Once a tablet is removed from its blister, it must be administered immediately.
  If half tablets are used, remaining 1/2 tablets may be given to another patient if administered within 24 hours.

ASCORBIC acid = VITAMIN C

Therapeutic action
– Vitamin

Indications
– Treatment and prevention of scurvy (vitamin C deficiency)

Presentation
– 50 mg tablet
Also comes in 250 mg, 500 mg and 1 g tablets.

Dosage and duration
– *Treatment*
  Child: 150 to 200 mg/day in 3 or 4 divided doses
  Adult: 500 to 750 mg/day in 3 or 4 divided doses
  The treatment is continued until symptoms improve (1 to 2 weeks), then a preventive treatment is given as long as the situation requires.
– *Prevention*
  Child and adult: 25 to 50 mg/day, as long as the situation requires

Contra-indications, adverse effects, precautions
– Ascorbic acid is well tolerated at indicated doses.
– May cause: gastrointestinal disturbances and nephrolithiasis for doses > 1 g/day; may interfere with the measurement of glucose in blood and urine for doses ≥ 2 g/day.
– *Pregnancy: no contra-indication, do not exceed 1 g/day.*
– *Breast-feeding: no contra-indication*

Remarks
– *Storage: below 25°C* –  – 

AZITHROMYCIN

Prescription under medical supervision

Therapeutic action
- Macrolide antibacterial

Indications
- Trachoma, conjunctivitis due to *Chlamydia trachomatis*
- Cervicitis and urethritis due to Chlamydia trachomatis (in combination with a treatment for gonorrhoea), donovanosis, chancroid, early syphilis
- Cholera (if the strain is susceptible), yaws
- Pertussis, pneumonia due to *Mycoplasma pneumoniae* and *Chlamydophila pneumoniae*
- Streptococcal tonsillitis, acute otitis media, in penicillin-allergic patients only

Presentation
- 250 mg and 500 mg capsules or tablets
- 200 mg/5 ml powder for oral suspension, to be reconstituted with filtered water

Dosage and duration
- *Trachoma, cholera, cervicitis and urethritis due to C. trachomatis, chancroid, early syphilis*
  Child: 20 mg/kg as a single dose (max. 1 g)
  Adult: 1 g as a single dose (2 g as a single dose in early syphilis)
- *Yaws*
  Child and adult: 30 mg/kg as a single dose (max. 2 g)
- *Conjunctivitis due to C. trachomatis*
  Child: 20 mg/kg once daily for 3 days (max. 1 g/day)
  Adult: 1 g once daily for 3 days
- *Donovanosis (granuloma inguinale)*
  Adult: 1 g on D1 then 500 mg/day until healing of lesions
- *Pertussis, pneumonia due to M. pneumoniae and C. pneumoniae*
  Child: 10 mg/kg once daily for 5 days (max. 500 mg/day)
  Adult: 500 mg on D1 then 250 mg from D2 to D5
- *Streptococcal tonsillitis, only in penicillin-allergic patients*
  Child: 20 mg/kg once daily for 3 days (max. 500 mg/day)
  Adult: 500 mg once daily for 3 days
- *Acute otitis media, only in penicillin-allergic patients*
  Child: 10 mg/kg once daily for 3 days (max. 500 mg/day)

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to azithromycin or another macrolide, and to patients with severe hepatic impairment.
- May cause: gastrointestinal disturbances, heart rhythm disorders (QT prolongation), allergic reactions sometimes severe. In the event of allergic reaction, stop treatment immediately.
- Do not administer simultaneously with antacids (aluminium or magnesium hydroxide, etc.). Administer 2 hours apart.
- Avoid combination with drugs that prolong the QT interval (amiodarone, chloroquine, co-artemether, fluconazole, haloperidol, mefloquine, moxifloxacin, ondansetron, pentamidine, quinine, etc.).
- Administer with caution and monitor use in patients taking digoxin (increased digoxin plasma levels).
- *Pregnancy and breast-feeding: no contra-indication*

Remarks
- Also comes in 250 mg or 500 mg capsules, to be taken one hour before or 2 hours after a meal.
- *Storage: below 25°C* –  – 
  For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

BECLOMETASONE aerosol

Prescription under medical supervision

Therapeutic action
- Anti-inflammatory drug (corticosteroid)

Indications
- Long term treatment of persistent asthma

Presentation and route of administration
- Pressurized inhalation solution of beclomatesone dipropionate, 50 micrograms and 100 micrograms/ inhalation

Dosage and administration
The dosage varies from one person to another. The initial dose depends on the severity of symptoms. It may be increased or reduced over time. Always try to administer the lowest effective dose. For information:

- *Mild to moderate persistent asthma*
  Child: 100 to 400 micrograms/day in 2 or 4 divided doses
  Adult: 500 to 1000 micrograms/day in 2 or 4 divided doses
- *Severe persistent asthma*
  Child: up to 800 micrograms/day in 2 or 4 divided doses
  Adult: up to 1500 micrograms/day in 2 or 4 divided doses

Shake the inhaler. Breathe out as completely as possible. Place the lips tightly around the mouthpiece. Inhale deeply while activating the inhaler. Hold breath 10 seconds before exhaling. Verify that the inhalation technique is correct.
Co-ordination between the hand and inhalation is very difficult in certain patients (children under 6 years, elderly patients, etc.). Use a spacer to facilitate administration and improve the efficacy of treatment.

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer to patients with untreated active tuberculosis.
- May cause: throat irritation, hoarseness at the beginning of treatment, oro-pharyngeal candidiasis.
- In the event of cough and/or bronchospasm following inhalation of beclometasone: administer salbutamol if necessary, stop inhalation of beclometasone and replace with an oral corticoid.
- In the event of bronchial infection, administer appropriate antibiotic treatment in order to optimise the diffusion of beclometasone in the respiratory tract.
- If the maximum dosage becomes insufficient, re-evaluate the severity of asthma and combine with a short oral anti-inflammatory treatment.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Beclometasone is not a bronchodilator. For asthma attack, use inhaled salbutamol.
- Relief of symptoms may require several days or weeks of continuous therapy.
- Clean the mouthpiece before and after each use.
- Do not pierce or incinerate used aerosol containers. Empty all residual gas, then bury.
- *Storage: below 25°C –* 

BIPERIDEN

Prescription under medical supervision

Therapeutic action
- Anticholinergic antiparkinson drug

Indications
- Extrapyramidal syndrome induced by antipsychotics

Presentation
- 2 mg tablet

Dosage
- Adult: initial dose of 2 mg/day in 2 divided doses, increased gradually if necessary up to 4 to 6 mg/day in 2 to 3 divided doses (max. 8 mg/day)
- Administer in the lowest effective dose in elderly patients.

Duration
- As long as the antipsychotic treatment lasts.

Contra-indications, adverse effects, precautions
- Do not administer to patients with closed-angle glaucoma, decompensated heart disease, prostate disorders, gastrointestinal obstruction or atony.
- Administer with caution and carefully monitor use in patients > 60 years (risk of mental confusion, hallucinations).
- May cause: anticholinergic effects (dry mouth, blurred vision, urinary retention, constipation, tachycardia), drowsiness (inform the patient that it may affect the capacity to drive or operate machinery). In these events, reduce the dose.
- Avoid or monitor combination with other drugs known to have anticholinergic effects (amitriptyline, atropine, clomipramine, promethazine, etc.).
- *Pregnancy: re-evaluate whether the antipsychotic treatment is still necessary; if treatment is continued, administer biperiden in the lowest effective dose and observe the newborn infant if the mother was under treatment in the 3rd trimester (risk of anticholinergic effect, e.g. tremors, abdominal distension).*
- *Breast-feeding: no contra-indication. Administer in the lowest effective dose and observe the child (risk of anticholinergic effects, e.g. tachycardia, constipation, thickening of bronchial secretions).*

Remarks
- Biperiden is also used in Parkinson's disease:
  - as monotherapy early in the course of the disease;
  - in combination with levodopa in the most advanced stages.
- Also comes in 4 mg extended-release tablet, administered once daily in the morning.
- *Storage: below 25°C –* 

BISACODYL

Therapeutic action
- Stimulant laxative

Indications
- Prevention of constipation in patients taking opioid analgesics (codeine, morphine, etc.)
- Short-term, symptomatic treatment of constipation

Presentation
- 5 mg enteric-coated tablet

Dosage
- Child over 3 years: 5 to 10 mg once daily
- Adult: 10 to 15 mg once daily

Duration
- *Prevention of constipation in patients taking opioids*: start bisacodyl when analgesic treatment continues more than 48 hours. Tablets must be taken daily, at night (bisacodyl is effective 6 to 12 hours after administration), until the end of the opioid treatment. Regular follow up (frequency/consistency of stools) is essential in order to adjust dosage correctly.
- *Treatment of constipation*: until the patient passes stools, maximum 7 days.

Contra-indications, adverse effects, precautions
- Do not administer to patients with Crohn's disease, ulcerative colitis, intestinal obstruction, undiagnosed abdominal pain and dehydration.
- May cause: diarrhoea, abdominal cramps, hypokalaemia.
- In the event of diarrhoea: exclude a faecal impaction or intestinal obstruction, stop treatment for 24 hours and then start again with a half dose.
- In the event of abdominal cramps: reduce or divide the daily dose. Stop treatment if pain continues.
- Do not combine with drugs that induce torsades de pointe (halofantrine, erythromycin IV, pentamidine, etc.).
- Closely monitor patients taking drugs that induce hypokalaemia (furosemide, amphotericin B, corticosteroids, etc.) or cardiac glycosides.
- *Pregnancy and breast-feeding: avoid; for routine prevention of constipation due to opioids, use lactulose.*

Remarks
- To prevent constipation in patients taking opioids, use lactulose if the patient's stools are solid; use bisacodyl if the patient's stools are soft.
- In children from 6 months to 3 years, do not use the oral route. Use only 5 mg paediatric suppositories (one suppository/day).
- Swallow tablets whole; do not crush or chew.
- Bisacodyl is equivalent to senna, the representative example of laxative stimulants in the WHO list of essential medicines.
- The treatment must be accompanied by dietary measures (plenty of fluids and fibre).
- *Storage: below 25°C*

BISOPROLOL

Prescription under medical supervision

Therapeutic action
- Cardioselective beta-blocker

Indications
- Hypertension, treatment of chronic stable angina pectoris
- Chronic stable heart failure in combination with a converting enzyme inhibitor (enalapril) and a diuretic (furosemide)

Presentation
- 2.5 mg breakable tablet and 5 mg tablet

Dosage
- *Hypertension, angina pectoris*
  Adult: 5 to 10 mg once daily, preferably in the morning (max. 20 mg/day)
- *Heart failure*
  Adult: start with 1.25 mg/day and increase according to the table below, as long as the drug is well tolerated (cardiac frequency, blood pressure, signs of worsening heart failure).

Weeks	Daily dose	Tablet(s)
Week 1	1.25 mg once daily	2.5 mg tab: ½ tab per day
Week 2	2.5 mg once daily	2.5 mg tab: 1 tab per day
Week 3	3.75 mg once daily	2.5 mg tab: 1½ tab per day
Week 4 to 8	5 mg once daily	5 mg tab: 1 tab per day
Week 9 to 12	7.5 mg once daily	2.5 mg tab:1 tab per day + 5 mg tab: 1 tab per day
From week 13	10 mg once daily (max. 10 mg/day)	5 mg tab: 2 tab per day

Duration
- According to clinical response. Do not stop treatment abruptly, decrease doses gradually.

Contra-indications, adverse effects, precautions
- Do not administer to patients with asthma, chronic obstructive bronchopneumonia, acute heart failure, severe hypotension, bradycardia < 50/minute, atrio-ventricular heart blocks, Raynaud's syndrome.
- May cause:
  - bradycardia, hypotension, worsening of heart failure (reduce dose);
  - bronchospasm in patients with an obstructive respiratory disease;
  - hypoglycaemia, gastrointestinal disturbances, headache, fatigue, muscle weakness.
- Administer with caution to patients with diabetes (risk of hypoglycaemia).
- Reduce dosage in patients with renal or hepatic impairment (max. 10 mg/day).
- In the event of anaphylactic shock, risk of resistance to epinephrine.
- Avoid or monitor combination with:
  - mefloquine, digoxin, amiodarone, diltiazem, verapamil (risk of bradycardia);
  - tricyclic antidepressants, antipsychotics, anti-hypertensive drugs (risk of hypotension).
- *Pregnancy: no contra-indication. For the management of hypertension in pregnancy, use labetalol.*
- *Breast-feeding: avoid*

Remarks
- Also comes in 1.25 mg tablets.
- *Storage: below 25°C* – – –

CABERGOLINE

Prescription under medical supervision

Therapeutic action

– Long-lasting lactation inhibitor

Indications

– Inhibition of lactation or suppression of established lactation in case of intrauterine foetal death or neonatal death

Presentation

– 0.5 mg scored tablet

Dosage and duration

– *Lactation inhibition*
  1 mg as a single dose on the first day post-partum
– *Lactation suppression*
  0.25 mg every 12 hours for 2 days

Contra-indications, adverse effects, precautions

– Do not administer to patients with postpartum hypertension or psychosis, preeclampsia, valvulopathy, and history of pulmonary, retroperitoneal or pericardial fibrosis.
– May cause: hypotension, valvulopathy, dizziness, headache, nausea, drowsiness, hallucinations.
– Do not combine with chlorpromazine, haloperidol, metoclopramide, promethazine (effect of cabergoline antagonised), methylergometrine (risk of vasoconstriction and hypertensive crisis), and macrolides (effect of cabergoline increased).
– *Pregnancy*: ***CONTRA-INDICATED***

Remarks

– The use of cabergoline is not recommended to inhibit lactation in women who chose to not breastfeed: it is not justified to expose women to the adverse effects of cabergoline, lactation will stop spontaneously.
– Cabergoline is not included in the WHO list of essential medicines.
– Cabergoline is a dopamine agonist also used in the treatment of Parkinson's disease.
– *Storage: below 25°C* –  – 

CALCIUM FOLINATE = FOLINIC acid

Prescription under medical supervision

Therapeutic action
- Antidote to folate antagonists

Indications
- Prevention of haemotological toxicity of pyrimethamine when pyrimethamine is used as prophylaxis for, or in the treatment of toxoplasmosis or isosporiasis in immunodeficient patients

Presentation
- 15 mg tablet

Also comes in 5 mg and 25 mg capsules.

Dosage
- *When pyrimethamine is used as primary or secondary prophylaxis for toxoplasmosis*
  Adult: 25 to 30 mg once weekly
- *During treatment of toxoplasmosis*
  Adult: 10 to 25 mg once daily
- *During treatment of isosporiasis*
  Adult: 5 to 15 mg once daily

Duration
- For the duration of the pyrimethamine treatment

Contra-indications, adverse effects, precautions
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Folic acid cannot be used as an alternative to folinic acid for the treatment of toxoplasmosis: folic acid reduces the antiprotozoal activity of pyrimethamine.
- Calcium folinate is also called calcium leucovorin.
- *Storage: below 25°C –* 

CARBAMAZEPINE

Prescription under medical supervision

Therapeutic action
- Antiepileptic

Indications
- Epilepsy (except absence seizures)
- Neuropathic pain (alone or combined with amitriptyline)

Presentation
- 200 mg tablet

Dosage
- *Epilepsy*
  Child: start with 5 mg/kg once daily or in 2 divided doses, then increase every 2 weeks up to 10 to 20 mg/kg/day in 2 to 4 divided doses
  Adult: start with 100 to 200 mg once daily or in 2 divided doses, then increase by 100 to 200 mg increments every 2 weeks up to 800 to 1200 mg/day in 2 to 4 divided doses
- *Neuropathic pain*
  Adult: 200 mg once daily at night for one week, then 400 mg/day in 2 divided doses (morning and night) for one week, then 600 mg/day in 3 divided doses

Duration
- *Epilepsy*: lifetime treatment. Do not stop treatment abruptly, even if changing treatment to another antiepileptic.
- *Neuropathic pain*: continue several months after pain relief is obtained, then attempt to stop treatment.

Contra-indications, adverse effects, precautions
- Do not administer to patients with atrioventricular block, history of bone marrow depression.
- Administer with caution to patients with glaucoma, urinary retention, hepatic or renal impairment, heart failure or blood disorders and to elderly patients.
- May cause:
  - headache, dizziness, gastrointestinal and visual disturbances, rash, leucopenia, confusion and agitation in elderly patients, drowsiness (use with caution when driving or operating machinery);
  - rarely: severe allergic reactions (Lyell's and Stevens-Johnson syndromes), agranulocytosis, anaemia, bone marrow depression, pancreatitis, hepatitis, cardiac conduction defect. In these cases, stop treatment.
- Do not drink alcohol during treatment.
- Do not combine or monitor the combination with:
  - erythromycin, isoniazid, fluoxetine, valproic acid, etc. (increased carbamazepine plasma concentrations);
  - rifampicin (reduced efficacy of carbamazepine);
  - oral anticoagulants, oestroprogestogens (intrauterine device is preferred), corticosteroids, tricyclic antidepressants, neuroleptics, protease inhibitors, rifampicin, itraconazole, doxycycline, tramadol, etc. (reduced efficacy of these drugs).
- *Pregnancy:*
  - *Epilepsy: do not start treatment during the first trimester, except if vital and there is no alternative (risk of neural tube defects, facial and cardiac malformations, hypospadias). However, if treatment has been started before the pregnancy, do not stop treatment and use the minimal effective dose. Due to the risk of haemorrhagic disease of the newborn, administer vitamin K to the mother and the newborn infant. The administration of folic acid during the first trimester may reduce the risk of neural tube defects.*
  - *Neuropathic pain: not recommended*
- *Breast-feeding: avoid*

Remarks
- Also comes in 100 mg/5 ml oral solution, 100 mg tablet and 100 mg and 200 mg chewable tablets.
- *Storage: below 25°C* –  – 

CEFALEXIN

Prescription under medical supervision

Therapeutic action
– First-generation cephalosporin antibacterial

Indications
– Skin infections due to staphylococci and/or streptococci: impetigo, furuncle, erysipelas and superficial cellulitis

Presentation
– 250 mg capsule
– 125 mg/5 ml powder for oral suspension, to be reconstituted with filtered water

Dosage
– Neonate under 7 days: 50 mg/kg/day in 2 divided doses
– Neonate 7 to 28 days: 75 mg/kg/day in 3 divided doses

The exact dose should be calculated according to the newborn's weight.

– Child 1 month to 12 years: 25 to 50 mg/kg/day in 2 divided doses
– Child over 12 years and adult: 2 g/day in 2 divided doses

Age	Weight	125 mg/5 ml oral susp.	250 mg capsule
1 to < 5 months	4 to < 7 kg	1 tsp x 2	–
5 months to < 3 years	7 to < 15 kg	1½ tsp x 2	–
3 to < 6 years	15 to < 20 kg	2 tsp x 2	–
6 to < 12 years	20 to < 40 kg	–	2 cap x 2
≥ 12 years and adult	≥ 40 kg	–	4 cap x 2

Duration
– *Impetigo, furuncle*: 7 days; *erysipelas, cellulitis*: 7 to 10 days

Contra-indications, adverse effects, precautions
– Do not administer to patients with allergy to cephalosporin.
– Administer with caution to patients with allergy to penicillin (cross-sensitivity may occur) and severe renal impairment (reduce the dose).
– May cause: gastrointestinal disturbances (particularly diarrhoea), allergic reactions (skin eruption, fever, pruritus).
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Take preferably between meals.
– Also comes in 250 mg/5 ml powder for oral suspension.
– *Storage: below 25°C* –  – 
For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

CEFIXIME

Prescription under medical supervision

Therapeutic action
- Third-generation cephalosporin antibacterial

Indications
- Typhoid fever in children
- Acute cystitis in girls over 2 years, pregnant women and lactating women
- Acute pyelonephritis in adults
- Cervicitis and urethritis due to *Neisseria gonorrhoeae* (in combination with a treatment for chlamydia)

Presentation
- 200 mg tablet
- 100 mg/5 ml powder for oral suspension, to be reconstituted with filtered water

Dosage
- *Typhoid fever in children*
  Child over 3 months: 20 mg/kg/day in 2 divided doses
- *Acute cystitis in girls over 2 years*
  8 mg/kg once daily
- *Acute cystitis in pregnant and lactating women, acute pyelonephritis in adult*
  400 mg/day in 2 divided doses
- *Cervicitis and urethritis due to Neisseria gonorrhoeae*
  Child: 8 mg/kg as a single dose
  Adult: 400 mg as a single dose

Duration
- *Typhoid fever*: 7 days; *acute cystitis*: 3 days for girls and 5 days for adults; *acute pyelonephritis*: 10 to 14 days

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to cephalosporins.
- Administer with caution to penicillin-allergic patients (cross-sensitivity may occur) and in patients with severe renal impairment (reduce dosage).
- May cause: gastrointestinal disturbances (especially diarrhoea), headache, dizziness, allergic reactions (rash, pruritus, fever). In the event of allergic reaction, stop treatment immediately.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Also comes in 400 mg capsules.
- *Storage: below 25°C* –  – 
  For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

Activated CHARCOAL

Therapeutic action
- Adsorbent

Indications
- Poisoning by drugs, in particular: paracetamol, aspirin, ibuprofen, chloroquine, quinine, dapsone, phenobarbital, carbamazepine, digoxin
- Poisoning by other toxic substances: certain plants (datura, lantana, etc.), certain domestic, industrial or agricultural chemicals

Presentation
- Granules for oral suspension, in 50 g bottle, to be reconstituted with 250 ml of water

Dosage and duration
The dose of charcoal has to be administered as soon as possible (preferably within one hour after ingestion of the toxic compound) and swallowed within a limited period, e.g., in 15 to 20 minutes:
- Child under 1 year: 1 g/kg
- Child from 1 to 12 years: 25 g
- Child over 12 years and adult: 50 g

If the dose of charcoal is not entirely swallowed or the toxic substance was ingested in large quantities or over 2 hours beforehand: follow the treatment for 24 hours after poisoning, by administering half or a quarter of the initial dose of charcoal every 4 or 6 hours, depending on the tolerance and cooperation of the patient.

Contra-indications, adverse effects, precautions
- Do not administer in case of poisoning by caustic or foaming products, or hydrocarbons: risk of aggravation of lesions during vomiting (caustic products), aspiration pneumonia (foaming products, hydrocarbons), and airway obstruction due to foaming when vomiting (foaming products).
- The charcoal is ineffective in poisoning by: alcohols (ethanol, glycol ethylene, methanol, isopropyl alcohol, etc.), organophosphorus and carbamate insecticides, metals (lithium, iron salts, etc.).
- May cause: black colouring of stools (normal), constipation; vomiting in the event of rapid administration of large quantities.
- Do not administer charcoal simultaneously with other drugs by oral route. Administer 2 hours apart.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- To facilitate the administration of charcoal and avoid vomiting in children, mask the taste (mix with fruit juice, syrup) and administer the suspension slowly in small quantities.
- If there is a specific antidote to the drug ingested, use it in complement.
- *Storage: below 25°C –* 

CHLORAMPHENICOL

Prescription under medical supervision

The use of chloramphenicol should be restricted to severe infections when other less toxic antibacterials are not effective or contra-indicated.

Therapeutic action
- Phenicol antibacterial

Indications
- Alternative to first-line treatments of bubonic plague
- Alternative to first-line treatments of typhoid fever
- Completion treatment following parenteral therapy with chloramphenicol

Presentation
- 250 mg capsule

Dosage
- Child from 1 year to less than 13 years: 50 mg/kg/day in 3 to 4 divided doses; 100 mg/kg/day in severe infection (max. 3 g/day)
- Child ≥ 13 years and adult: 3 to 4 g/day in 3 to 4 divided doses

Age	Weight	250 mg capsule
1 to < 4 years	10 to < 17 kg	1 cap x 3
4 to < 9 years	17 to < 30 kg	2 cap x 3
9 to < 13 years	30 to < 45 kg	3 cap x 3
≥ 13 years and adult	≥ 45 kg	4 cap x 3

Duration
- Plague: 10 days; typhoid fever: 10 to 14 days

Contra-indications, adverse effects, precautions
- Do not administer to children under 1 year.
- Do not administer to patients with:
  - history of allergic reaction or bone marrow depression during a previous treatment with chloramphenicol;
  - G6PD deficiency.
- May cause:
  - dose-related haematological toxicity (bone marrow depression, anaemia, leucopenia, thrombocytopenia), allergic reactions. In these events, stop treatment immediately;
  - gastrointestinal disturbances, peripheral and optic neuropathies.
- Reduce dosage in patients with hepatic or renal impairment.
- Avoid or monitor combination with potentially haematotoxic drugs (carbamazepine, cotrimoxazole, flucytocine, pyrimethamine, zidovudine, etc.).
- *Pregnancy*: ***CONTRA-INDICATED**, except if vital, if there is no therapeutic alternative. If used during the 3rd trimester, risk of grey syndrome in the newborn infant (vomiting, hypothermia, blue-grey skin colour and cardiovascular depression).*
- *Breast-feeding*: ***CONTRA-INDICATED***

Remarks
- Oral treatment is more effective than parenteral treatment: blood and tissue concentrations are higher when chloramphenicol is given orally.
- Capsules can be opened and their content mixed into a spoon with food.
- Also comes in 150 mg/5 ml powder for oral suspension.
- *Storage: below 25°C –*

CHLOROQUINE sulfate or phosphate

Given that resistance of *P. falciparum* to chloroquine is widespread, this drug must not be used for the treatment of falciparum malaria in Africa, South America, Asia and Oceania.

Therapeutic action

– Antimalarial

Indications

– Treatment of malaria due to *P. vivax, P. ovale* and *P. malariae*
– Treatment of uncomplicated falciparum malaria, only in areas where *P. falciparum* is still sensitive to chloroquine (Central America, Haiti and Dominican Republic)
– Prophylaxis of falciparum malaria for non-immune individuals, only in areas where resistance to chloroquine is moderate and always in combination with proguanil

Presentation

– 100 mg and 155 mg chloroquine base tablets
– 50 mg chloroquine base/5 ml syrup

The dose written on the labels is sometimes in chloroquine salt and sometimes in chloroquine base which leads to frequent confusion. The WHO recommends prescriptions and labels in chloroquine base.
100 mg base = approx. 130 mg sulfate = approx. 160 mg phosphate or diphosphate
155 mg base = approx. 200 mg sulfate = approx. 250 mg phosphate or diphosphate

Dosage and duration

– *Treatment of malaria*
  Child and adult: 25 mg/kg total dose for 3 days of treatment
  Day 1 and Day 2: 10 mg base/kg once daily
  Day 3: 5 mg base/kg

– *Prophylaxis of falciparum malaria in areas where resistance to chloroquine is moderate*
  Child: 1.7 mg chloroquine base/kg once daily (always combined with proguanil)
  Adult: 100 mg chloroquine base once daily (always combined with proguanil)
  Travellers should start prophylaxis 24 hours before departure, continue throughout the stay and for at least 4 weeks after return.

  In areas where resistance to chloroquine is high, chloroquine must be replaced by another effective antimalarial suitable for prophylactic use.

Contra-indications, adverse effects, precautions

– Do not administer to patients with retinopathy.
– May cause: gastrointestinal disturbances, headache, transitory pruritus (lasting 72 hours), allergic reactions (urticaria, angioedema), visual disturbances.
– If the patient vomits within one hour after administration:
  • during the first 30 minutes: repeat the full dose;
  • after 30 minutes: give half the dose.

- There is a narrow margin between the therapeutic and toxic dose. Doses of 20 mg base/kg in children and 2 g base in adults are considered toxic.
- Do not combine with: coartemether, quinine, mefloquine, halofantrine.
- Do not administer simultaneously with antacids (aluminium hydroxide, etc.): administer 2 hours apart.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks

- Chloroquine alone (without proguanil) is used as a prophylactic drug in certain areas where only *P. vivax* is present.
- Resistance of *P. vivax* to chloroquine exists in Indonesia and Oceania.
- *Storage: below 25°C –* 

CHLORPHENAMINE = CHLORPHENIRAMINE

Therapeutic action
– Sedating antihistamine

Indications
– Symptomatic treatment of minor allergic reactions (contact dermatitis, seasonal allergy, allergy to drugs, food, etc.)

Presentation
– 4 mg tablet
Also comes in 2 mg/5 ml oral solution.

Dosage
– Child from 1 to 2 years: 1 mg 2 times daily
– Child from 2 to 6 years: 1 mg 4 to 6 times daily (max. 6 mg/day)
– Child from 6 to 12 years: 2 mg 4 to 6 times daily (max. 12 mg/day)
– Child over 12 years and adult: 4 mg 4 to 6 times daily (max. 24 mg/day)

Age	Weight	4 mg tablet
< 1 year	< 10 kg	**Do not administer**
1 to < 2 years	10 to < 13 kg	¼ tab x 2
2 to < 6 years	13 to < 21 kg	¼ tab x 4
6 to < 12 years	21 to < 37 kg	½ tab x 4
≥ 12 years and adult	≥ 37 kg	1 tab x 4

Duration
– According to clinical response; as short as possible.

Contra-indications, adverse effects, precautions
– Administer with caution and monitor use in patients with prostate disorders or closed-angle glaucoma, patients > 60 years and children (risk of agitation, excitability).
– May cause: drowsiness (caution when driving/operating machinery), anticholinergic effects (dry mouth, blurred vision, constipation, tachycardia, disorders of micturition), headache, tremor, allergic reactions.
– Monitor combination with CNS depressants (opioid analgesics, antipsychotics, sedatives, antidepressants, etc.).
– Avoid alcohol during treatment.
– *Pregnancy: no contra-indication; NO PROLONGED TREATMENT*
– *Breast-feeding: no contra-indication; monitor the child for excessive somnolence.*

Remarks
– Chlorphenamine is less sedating than promethazine.
– Dexchlorpheniramine has the same indications:
  • child 1 to 2 years: 0.25 mg 2 to 3 times daily
  • child 2 to 6 years: 0.5 mg 2 to 3 times daily
  • child 6 to 12 years: 1 mg 3 to 4 times daily
  • child over 12 years and adult: 2 mg 3 to 4 times daily
– *Storage: below 25°C*

CHLORPROMAZINE

Prescription under medical supervision

Therapeutic action
- Sedative antipsychotic (neuroleptic)

Indications
- Acute or chronic psychosis
- Severe anxiety not controlled by benzodiazepines

Presentation
- 25 mg tablet

Also comes in 100 mg tablets.

Dosage
- *Acute or chronic psychosis*
  Adult: initial dose of 75 mg/day in 3 divided doses; if necessary, the dose may be gradually increased up to 300 mg/day in 3 divided doses (max. 600 mg/day). Once the patient is stable, the maintenance dose is administered once daily in the evening.
- *Severe anxiety not controlled by benzodiazepines*
  Adult: 75 to 150 mg/day in 3 divided doses
- Whatever the indication, reduce the dose by half in elderly patients.
- Use the lowest effective dose, especially in the event of prolonged treatment.

Duration
- *Acute psychosis*: minimum 3 months; chronic psychosis: minimum one year. The treatment should be discontinued gradually (over 4 weeks). If signs of relapse occur, increase the dose.
- *Severe anxiety*: maximum 4 weeks.

Contra-indications, adverse effects, precautions
- Do not administer to patients with closed-angle glaucoma, prostate disorders; to elderly patients with dementia (e.g. Alzheimer's disease).
- Administer with caution and carefully monitor use in patients > 60 years; patients with epilepsy, chronic constipation, renal or hepatic impairment, Parkinson's disease, myasthenia gravis.
- May cause:
  - drowsiness (caution when driving/operating machinery), orthostatic hypotension, sexual dysfunction;
  - anticholinergic effects (dry mouth, blurred vision, urinary retention, constipation, tachycardia);
  - extrapyramidal syndrome, early or tardive dyskinesia, photosensitivity (patients must protect themselves from sunlight), jaundice; neuroleptic malignant syndrome (unexplained hyperthermia with neuromuscular disorders), rare but requiring immediate treatment discontinuation.
- In the event of extrapyramidal symptoms, combine with biperiden.
- Avoid or monitor combination with: drugs which lower the seizure threshold (mefloquine, chloroquine, tramadol, tricyclic or SSRI antidepressants); CNS depressants (opioid analgesics, sedatives, H1 antihistamines, etc.); drugs known to have anticholinergic effects (amitriptyline, atropine, clomipramine, promethazine, etc.); antidiabetics, lithium.
- Avoid alcohol during treatment.
- Chlorpromazine is irritating to the skin/mucous membranes: do not crush tablets.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, monitor the newborn infant for extrapyramidal and/or anticholinergic effects (tremor, abdominal distension, hyperexcitability, etc.) if the mother was under high dose treatment in the 3rd trimester.*
- *Breast-feeding: avoid*

Remarks
- In the event of agitation or aggressiveness in patients under other antipsychotic treatment (e.g. risperidone or haloperidol), chlorpromazine may be administered at the dose of 75 to 150 mg/day in 3 divided doses for a few days.
- Chlorpromazine produces less extrapyramidal symptoms than haloperidol but orthostatic hypotension and anticholinergic effects are more frequent.
- *Storage: below 25°C*

CIMETIDINE

Prescription under medical supervision

Therapeutic action
– Antiulcer agent (histamine H2-receptor antagonist)

Indications
– Prophylaxis of acid pulmonary aspiration syndrome in anaesthesia:
  • in patients with a full stomach (emergency caesarean section, etc.)
  • when a difficult intubation is expected

Presentation
– 200 mg effervescent tablet

Also comes 800 mg effervescent tablet.

Dosage and duration
– Adult: 200 to 400 mg as a single dose if possible one hour before anaesthetic induction

Contra-indications, adverse effects, precautions
– May cause: diarrhoea, headache, dizziness, skin rash, fever.
– Do not administer with an antacid (aluminium hydroxide, etc.).

Remarks
– Effervescent cimetidine can be replaced by effervescent ranitidine, another H2-receptor antagonist, as a single dose of 150 mg.
– The onset of acid inhibition with cimetidine non-effervescent tablets (200 mg, 400 mg and 800 mg film coated tablets) or ranitidine non-effervescent tablets (150 mg and 300 mg film coated tablets) occurs 30 minutes after administration. The effervescent tablets containing sodium citrate have a more rapid onset of action, and can thus be used for emergency surgery.
– Omeprazole, another antiulcer agent (proton pump inhibitor), is not compatible with emergency situations as it must be administered at least 4 hours before surgery.
– Cimetidine in film coated tablets is also used in the treatment of gastro-oesophageal reflux and peptic ulcer. Use by preference ranitidine or omeprazole for these indications.
– *Storage: below 25°C* –  – 

CIPROFLOXACIN

Prescription under medical supervision

Therapeutic action
- Fluoroquinolone antibacterial

Indications
- Shigellosis, typhoid fever, cutaneous anthrax
- Uncomplicated acute cystitis in non-pregnant women or in the event of previous treatment failure, acute prostatitis, uncomplicated acute pyelonephritis, chancroid

Presentation
- 250 mg and 500 mg tablets
- 250 mg/5 ml granules and solvent for oral suspension

Dosage
- *Shigellosis, typhoid fever, cutaneous anthrax*
  Child over 1 month: 30 mg/kg/day in 2 divided doses (max. 1 g/day)
  Adult: 1 g/day in 2 divided doses

Age	Weight	250 mg/5 ml susp.	250 mg tablet	500 mg tablet
1 to < 3 months	4 to < 6 kg	1.5 ml x 2	-	-
3 to < 7 months	6 to < 8 kg	2 ml x 2	-	-
7 months to < 2 years	8 to < 12 kg	2.5 ml x 2	-	-
2 to < 3 years	12 to < 15 kg	4 ml x 2	-	-
3 to < 8 years	15 to < 26 kg	5 ml x 2	1 tab x 2	-
8 to < 11 years	26 to < 36 kg	8 ml x 2	-	-
≥ 11 years and adult	≥ 36 kg	-	2 tab x 2	1 tab x 2

- *Uncomplicated acute cystitis in non-pregnant women*
  Adult: 500 mg/day in 2 divided doses
- *Acute cystitis (in the event of recurrence or treatment failure), acute prostatitis, chancroid*
  Adult: 1 g/day in 2 divided doses
- *Uncomplicated acute pyelonephritis*
  Adult: 1 to 1.5 g/day in 2 to 3 divided doses

Duration
- *Shigellosis, uncomplicated cystitis, chancroid*: 3 days; *cystitis (in the event of recurrence or treatment failure)*: 5 days; *typhoid fever*: 5 to 7 days; *pyelonephritis*: 7 days; *cutaneous anthrax*: 7 to 10 days; *prostatitis*: 28 days

Contra-indications, adverse effects, precautions
- Do not administer to patients with history of allergy or tendinitis due to fluoroquinolones.
- Administer with caution to epileptic patients (risk of seizures).
- Reduce the dose by half in patients with renal impairment.
- May cause: gastrointestinal disturbances, neurological disorders (headache, dizziness, confusion, hallucinations, seizures), allergic reaction, peripheral neuropathy, photosensitivity (protect skin from sun exposure), arthralgia, myalgia, tendon damage (especially Achilles tendinitis), QT interval prolongation, hypo/hyperglycaemia, haemolytic anaemia in patients with G6PD deficiency. In the event of allergic reaction, severe neurological disorders, peripheral neuropathy or tendinitis, stop treatment immediately.
- Avoid combination with drugs that prolong the QT interval (amiodarone, chloroquine, co-artemether, fluconazole, haloperidol, mefloquine, ondansetron, pentamidine, quinine, etc.).
- Monitor patients taking glibenclamide (risk of hypoglycaemia).
- Do not administer simultaneously with antacids (aluminium or magnesium hydroxide, etc.), iron salts, calcium. Administer 2 hours apart.
- Drink a lot of liquid during treatment (risk of crystalluria).
- *Pregnancy: reserved for severe infections, when there is no therapeutic alternative.*
- *Breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C* – 

CLINDAMYCIN

Prescription under medical supervision

Therapeutic action
- Lincosamide antibacterial

Indications
- Severe staphylococcal and/or streptococcal infections (e.g. erysipelas, cellulitis, cutaneous anthrax, pneumonia):
  - in betalactam-allergic patients
  - in infections due to methicillin-resistant *Staphylococcus aureus*
- Completion treatment following parental therapy with clindamycin

Presentation
- 150 mg and 300 mg capsules

Dosage
- Child: 30 to 40 mg/kg/day in 3 divided doses
- Adult: 1800 mg/day in 3 divided doses

Age	Weight	150 mg capsule	300 mg capsule
1 to < 6 years	10 to < 20 kg	1 cap x 3	–
6 to < 9 years	20 to < 30 kg	–	1 cap x 3
9 to < 13 years	30 to < 45 kg	3 cap x 3	–
≥ 13 years and adult	≥ 45 kg	–	2 cap x 3

Duration
- *Erysipelas, cellulitis*: 7 to 10 days; *cutaneous anthrax*: 7 to 14 days depending on severity; *pneumonia*: 10 to 14 days

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to lincosamides or history of pseudomembranous colitis.
- Reduce dosage in patients with hepatic impairment.
- May cause: pseudomembranous colitis, rash, jaundice, severe allergic reactions. In these cases, stop treatment.
- In the event of pseudomembranous colitis, treat for *Clostridium difficile* infection (oral metronidazole).
- Do not administer simultaneously with antacids (aluminium or magnesium hydroxide, etc.). Administer 2 hours apart.
- *Pregnancy: no contra-indication*
- *Breast-feeding: use only when there is no therapeutic alternative. Check infant's stools (risk of pseudomembranous colitis).*

Remarks
- Capsules are not suitable for children under 6 years (risk of aspiration). Open the capsule and mix the content into a spoon with food or fruit juice to mask the unpleasant taste.
- Clindamycin is use in combination with quinine for the treatment of malaria in pregnant women (20 mg/kg/day in 2 divided doses for 7 days).
- Also comes in 75 mg/5 ml oral suspension.
- *Storage: below 25°C* –  – 

CLOMIPRAMINE

Prescription under medical supervision

Therapeutic action
- Tricyclic antidepressant

Indications
- Major depression
- Prevention of panic attacks

Presentation
- 25 mg tablet

Also comes in 10 mg tablet.

Dosage
- Adult: initial dose of 25 mg once daily at bedtime, then increase gradually over one week to 75 mg once daily at bedtime (max. 150 mg/day).
- Reduce the dose by half in elderly patients and in patients with hepatic or renal impairment.

Duration
- *Depression*: 6 months minimum. The treatment should be discontinued gradually (dose tapered over 4 weeks). If signs of relapse occur, increase the dose.
- *Prevention of panic attacks*: 2 to 3 months once panic attacks cease then discontinue gradually over 4 weeks.

Contra-indications, adverse effects, precautions
- Do not administer to patients with recent myocardial infarction, arrhythmia, closed-angle glaucoma, prostate disorders.
- Administer with caution and carefully monitor use in patients > 60 years and in patients with epilepsy, chronic constipation, renal or hepatic impairment, history of bipolar disorders.
- May cause:
  - drowsiness (caution when driving/operating machinery) or insomnia, orthostatic hypotension, sexual dysfunction;
  - anticholinergic effects: dry mouth, blurred vision, constipation, tachycardia, disorders of micturition. These adverse effects are transitory or disappear with dose reduction. Treatment should be discontinued in the event of severe reactions (mental confusion, urinary retention, cardiac rhythm disorders);
  - psychic disorders: exacerbation of anxiety, possibility of a suicide attempt at the beginning of therapy, manic episode during treatment.
- Do not combine with another antidepressant.
- Monitor combination with CNS depressants (opioid analgesics, sedatives, H1 antihistamines, etc.), drugs known to have anticholinergic effects (atropine, chlorpromazine, promethazine, etc.), drugs which lower the seizure threshold (antipsychotics, mefloquine, tramadol, etc.), lithium and other serotonergics.
- Avoid alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, observe the newborn infant the first few days (risk of neurological and gastrointestinal disorders).*
- *Breast-feeding: no contra-indication*

Remarks
- The antidepressant effect is not immediate. It is necessary to wait 3 weeks before assessing therapeutic efficacy. This must be explained to the patient.
- Clomipramine causes less sedation, anticholinergic effects and orthostatic hypotension than amitriptyline.
- *Storage: below 25°C*

CLOXACILLIN

Prescription under medical supervision

Therapeutic action
– Penicillin antibacterial

Indications
– Impetigo (preferably use cefalexin for this indication)

Presentation
– 250 mg and 500 mg capsules

Dosage and duration
– Child over 10 years: 50 mg/kg/day in 3 divided doses for 7 days (max. 3 g/day)
– Adult: 3 g/day in 3 divided doses for 7 days

Age	Weight	250 mg capsule	500 mg capsule
10 to < 13 years	30 to < 45 kg	2 cap x 3	1 cap x 3
13 to < 15 years	45 to < 55 kg	3 cap x 3	–
Adult	≥ 55 kg	4 cap x 3	2 cap x 3

Contra-indications, adverse effects, precautions
– Do not administer to patients with allergy to penicillin.
– Administer with caution to patients with allergy to cephalosporins (cross-sensitivity may occur) or severe renal impairment (reduce the dosage).
– May cause: gastrointestinal disturbances (particularly diarrhoea), allergic reactions sometimes severe; rarely, haematological disorders.
– Do not combine with methotrexate (increased methotrexate toxicity).
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Take between meals.
– Dicloxacillin, flucloxacillin and oxacillin are antibacterials used for the same indication.
– Also comes in powder for oral solution 125 mg/5 ml and 1 g capsules.
– *Storage: below 25°C* – 

CODEINE

Prescription under medical supervision

Therapeutic action
– Opioid analgesic

Indications
– Moderate pain, alone or in combination with a non-opioid analgesic

Presentation
– 30 mg codeine phosphate tablet

Dosage
– Child over 12 years and adult: 30 to 60 mg every 4 to 6 hours; maximum 240 mg/day

Duration
– According to clinical evolution; as short as possible.

Contra-indications, adverse effects, precautions
– Do not administer to patients with acute respiratory depression or asthma attack.
– May cause:
  • constipation, nausea, vomiting, drowsiness, dizziness;
  • rarely: respiratory depression, allergic reactions, dependence, withdrawal syndrome.
– Do not combine with:
  • other agonist opioids such as morphine (increased risk of respiratory depression);
  • agonist-antagonist opioids such as buprenorphine, nalbuphine, pentazocine (competitive action).
– Reduce dosage in patients with renal or hepatic impairment and in elderly patients.
– Management of respiratory depression includes assisted ventilation and/or administration of naloxone.
– *Pregnancy: no contra-indication. The newborn infant may develop withdrawal symptoms, respiratory depression and drowsiness in the event of prolonged administration of large doses at the end of the 3rd trimester. In this event, closely monitor the newborn infant.*
– *Breast-feeding: use with caution, for a short period (2-3 days), at the lowest effective dose. Monitor the mother and the infant: in the event of excessive drowsiness, stop treatment.*

Remarks
– Administer systematically an appropriate laxative (e.g. lactulose) if analgesic treatment continues more than 48 hours.
– In some countries, codeine is on the list of narcotics: follow national regulations.
– *Storage: below 25°C* –

COTRIMOXAZOLE
= SULFAMETHOXAZOLE (SMX)/TRIMETHOPRIM (TMP)

Prescription under medical supervision

Therapeutic action
- Combination of a sulfonamide with another antibacterial

Indications
- First-line treatment of pneumocystosis and isosporiasis
- Prophylaxis of pneumocystosis, toxoplasmosis and isosporiasis
- Brucellosis (when doxycycline is contra-indicated)

Presentation
- 400 mg SMX + 80 mg TMP and 800 mg SMX + 160 mg TMP tablets
- 100 mg SMX + 20 mg TMP tablet for paediatric use
- 200 mg SMX + 40 mg TMP/5 ml oral suspension

Dosage and duration
- *Treatment of pneumocystosis*
  Child: 100 mg SMX + 20 mg TMP/kg/day in 2 divided doses
  Adult: 4800 SMX + 960 TMP/day in 3 divided doses
- *Treatment of isosporiasis*
  Adult: 3200 mg SMX + 640 mg TMP/day in 2 divided doses
- *Prophylaxis of pneumocystosis, toxoplasmosis and isosporiasis*
  Child: 50 mg SMX + 10 mg TMP/kg once daily, as long as necessary
  Adult: 800 mg SMX + 160 mg TMP once daily, as long as necessary
- *Brucellosis*
  Child: 40 mg SMX + 8 mg TMP/kg/day in 2 divided doses
  Adult: 1600 mg SMX + 320 mg TMP/day in 2 divided doses

Duration
- *Pneumocystosis*: 14 to 21 days depending on severity; *isosporiasis*: 10 days; *brucellosis*: 6 weeks

Contra-indications, adverse effects, precautions
- Do not administer to children under 1 month.
- Do not administer to sulfonamide-allergic patients; patients with severe renal or hepatic impairment.
- May cause:
  - gastrointestinal disturbances, hepatic or renal disorders (crystalluria, etc.), metabolic disorders (hyperkalaemia); neuropathy, photosensitivity, haemolytic anaemia in patients with G6PD deficiency;
  - allergic reactions (fever, rash, etc.) sometimes severe (Lyell's and Stevens-Johnson syndromes, haematological disorders, etc.). In these cases, stop treatment immediately;
  - megaloblastic anaemia due to folinic acid deficiency in patients receiving prolonged treatment (in this event, administer calcium folinate).
- Adverse effects occur more frequently in patients with HIV infection.
- In the event of prolonged treatment, monitor blood count if possible.
- Do not combine with methotrexate and phenytoin.
- Avoid combination with drugs inducing hyperkalaemia: potassium, spironolactone, enalapril, NSAIDs, heparin (increased risk of hyperkalaemia).
- Monitor combination with zidovudine (increased haematotoxicity).
- Drink a lot of liquid during treatment.
- *Pregnancy: no contra-indication. However, avoid using during the last month of pregnancy (risk of jaundice and haemolytic anaemia in the newborn infant).*
- *Breast-feeding: avoid if premature infant, jaundice, low-birth weight, infant under one month of age. If cotrimoxazole is used, observe the infant for signs of jaundice.*

Remarks
- *Storage: below 5°C*
  Once the bottle has been opened, the oral suspension keeps for 20 days at ambient temperature or 40 days refrigerated (between 2°C and 8°C).

DAPSONE

Prescription under medical supervision

Therapeutic action
- Sulfone antibacterial
- Antileprotic

Indications
- Prophylaxis of toxoplasmosis and pneumocystosis
- Treatment of pneumocystosis
- Paucibacillary and multibacillary leprosy, in combination with other antileprotics

Presentation
- 25 mg, 50 mg and 100 mg tablets

Dosage
- *Prophylaxis of pneumocystosis only*
  Child: 2 mg/kg once daily, without exceeding 100 mg/day
  Adult: 100 mg once daily
- *Prophylaxis of toxoplasmosis and pneumocystosis*
  Child: 2 mg/kg once daily, without exceeding 25 mg/day (in combination with pyrimethamine 1 mg/kg once daily + folinic acid 10 mg/week)
  Adult:
  • 50 mg once daily (in combination with pyrimethamine 50 mg/week + folinic acid 25 to 30 mg/week)
  • or 200 mg once weekly (in combination with pyrimethamine 75 mg/week + folinic acid 25 to 30 mg/week)
- *Treatment of pneumocystosis* (in combination with 15 mg/kg/day of trimethoprime)
  Child: 2 mg/kg once daily, without exceeding 100 mg/day
  Adult: 100 mg once daily
- *Paucibacillary and multibacillary leprosy*
  Child under 10 years: 25 mg once daily
  Child from 10 to 14 years: 50 mg once daily
  Adult: 100 mg once daily

Duration
- *Prophylaxis of toxoplasmosis and pneumocystosis*: as long as necessary; *treatment of pneumocystosis*: 21 days; *paucibacillary leprosy*: 6 months; *multibacillary leprosy*: 12 months

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to sulfones or severe anaemia (first treat anaemia).
- Administer with caution to patients with renal or hepatic impairment.
- May cause: haemolytic anaemia in patients with G6PD deficiency, dose-related haemolytic anaemia, neutropenia, methaemoglobinaemia, pruritus, rash, gastrointestinal disturbances, peripheral neuropathies, agranulocytosis; hypersensitivity reactions during the first month of treatment (fever, jaundice, hepatitis, adenopathy, exfoliative dermatitis, etc.) requiring permanent discontinuation of treatment.
- Monitor blood count and transaminases if possible.
- Do not administer simultaneously with didanosine: administer each drug 2 hours apart.
- Monitor combination with zidovudine (increased haematological toxicity).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- For the treatment of leprosy, dapsone must always be used in combination with rifampicin (paucibacillary leprosy) or rifampicin + clofazimine (multibacillary leprosy) in order to avoid the emergence of resistance.
- *Storage: below 25°C* –  – 

DESOGESTREL

Prescription under medical supervision

Therapeutic action
- Hormonal contraceptive, progestogen

Indications
- Oral contraception

Presentation
- 75 micrograms (0.075 mg) tablet, 28-day pack

Dosage
- 1 tablet daily at the same time, continuously, including during menstruation
  Start the first day of menstruation or immediately after abortion or as of the 21st day after childbirth if the woman does not breastfeed.
  It is also possible to start at any moment of the cycle (if the woman is not pregnant). In this case, contraception will be effective as of the 3rd tablet. It is essential to use condoms during the first 2 days.

Duration
- If there are no adverse effects, as long as contraception is desired.

Contra-indications, adverse effects, precautions
- Do not administer to women with breast cancer, severe or recent liver disease, unexplained vaginal bleeding, current thromboembolic disorders.
- May cause: amenorrhoea, menstrual disturbances, nausea, weight gain, breast tenderness, mood changes, acne, headache.
- Hepatic enzyme inducers (rifampicin, rifabutin, nevirapine, ritonavir, phenobarbital, phenytoin, carbamazepine, griseofulvin, etc.) reduce the contraceptive efficacy. Use copper intrauterine device or condoms or injectable medroxyprogesterone.
- *Pregnancy*: ***CONTRA-INDICATED***
- *Breast-feeding: it is recommended to wait 6 weeks after childbirth before starting desogestrel in breastfeeding women. However, if it is the only contraceptive method available or acceptable, it can be started 3 weeks after childbirth.*

Remarks
- Desogestrel is a possible alternative when estroprogestogens are contra-indicated or poorly tolerated. It is preferred to levonorgestrel as its contraceptive efficacy is similar to that of estroprogestogens.
- If a woman misses a tablet, she should take it as soon as possible and continue treatment as normal. If she misses by over 12 hours, contraceptive protection will be lessened. It is therefore recommended to use an additional contraceptive method: condoms for 7 days and, if she has had sexual intercourse within 5 days before forgetting the tablet, emergency contraception.
- *Storage: below 25°C*

DIAZEPAM

Prescription under medical supervision

Therapeutic action
– Anxiolytic, sedative, anticonvulsant, muscle relaxant

Indications
– Agitation and anxiety
– Muscle spasms

Presentation
– 5 mg tablet
Also comes in 2 mg and 10 mg tablets and 1% oral solution.

Dosage
– Adult: 5 to 15 mg/day in 3 divided doses
– Do not exceed indicated doses.

Duration
– According to clinical response ; the shortest duration possible.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe respiratory insufficiency or severe hepatic impairment.
– May cause:
  • feeling of inebriation, drowsiness (administer with caution when driving or operating machinery);
  • dependence and tolerance when used for more than 10-15 days. At the end of treatment, reduce doses gradually to avoid withdrawal syndrome or rebound effect;
  • in the event of overdose: ataxia, muscular weakness, hypotension, confusion, lethargy, respiratory depression, coma.
– Reduce the dose by one half in elderly patients and in patients with renal or hepatic impairment.
– Risk of increased sedation when combined with alcohol and drugs acting on the central nervous system: opioid analgesics, neuroleptics (chlorpromazine, haloperidol, etc.), antihistamines (chlorphenamine, promethazine), antidepressants (clomipramine, fluoxetine, etc.), phenobarbital, etc.
– *Pregnancy: avoid*
– *Breast-feeding: avoid*

Remarks
– Diazepam is subject to international controls: follow national regulations.
– Diazepam is not a treatment for depression, chronic anxiety, or post-traumatic stress syndrome.
– *Storage: below 25°C* –

DIETHYLCARBAMAZINE

Prescription under medical supervision

Therapeutic action
- Anthelminthic (antifilarial)

Indications
- Lymphatic filariasis

Presentation
- 50 mg and 100 mg tablets

Dosage
- Child under 10 years: 0.5 mg/kg as a single dose on the first day, then increase the dose gradually over 3 days to 3 mg/kg/day in 3 divided doses
- Child over 10 years and adult: 1 mg/kg as a single dose on the first day, then increase the dose gradually over 3 days to 6 mg/kg/day in 3 divided doses

Duration
- *W. bancrofti*: 12 days; *B. malayi, B. timori*: 6 to 12 days

Contra-indications, adverse effects, precautions
- Do not administer to patients with onchocerciasis or heavy *Loa loa* microfilareamia; to infants, elderly patients and patients with heart or renal diseases.
- Do not administer during an acute attack.
- Administer with caution in patients with history of seizures.
- May cause:
  - nausea, vomiting, headache, dizziness, drowsiness, fever, joint pain, urticaria, transient haematuria, subcutaneous nodules, lymphangitis, localized oedema;
  - in patients with associated onchocerciasis: severe ocular damages (optic nerve lesions, retinal lesions);
  - in patients with associated loiasis: encephalitis (potentially fatal) if *Loa loa* microfilaraemia is high.
- Reduce dosage in patients with renal impairment.
- *Pregnancy*: ***CONTRA-INDICATED*** *(treatment may be deferred until after delivery)*
- *Breast-feeding*: *not recommended*

Remarks
- In countries with a national programme for the elimination of bancroftian filariasis, the combination diethylcarbamazine + albendazole is administered as a single annual dose for 4 to 6 years. This regimen is only suitable for countries that are free from *Onchocerca volvulus* and/or *Loa loa*.
- Diethylcarbamazine is included in the WHO complementary list of essential medicines.
- *Storage: between 15°C and 25°C* –

DIGOXIN

Prescription under medical supervision

Therapeutic action
– Cardiotonic

Indications
– Supraventricular arrhythmias (fibrillation, flutter, paroxysmal tachycardia)
– Heart failure

Presentation
– 62.5 µg (0.0625 mg) and 250 µg (0.25 mg) tablets
Also comes in 50 µg/ml oral solution (0.05 mg/ml).

Dosage
– Adult:
  • loading dose: 750 to 1500 µg (0.75 to 1.5 mg) in 3 to 4 divided doses. Do not exceed 1500 µg during the first 24 hours.
  • maintenance dose: 125 to 250 µg/day (0.125 to 0.25 mg) once daily or in 2 divided doses
– Reduce the dose by one half in elderly patients and in patients with renal impairment.

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– Do not administer to patients with bradycardia, ill defined arrhythmia, coronary artery disease.
– It is essential to monitor pulse in the initial stage of treatment.
– Narrow margin between therapeutic and toxic dose.
– May cause in the event of overdose: gastrointestinal disturbances (nausea, vomiting, diarrhoea), blurred vision, headache, confusion, conduction and rhythm disorders. If so, reduce dose or stop treatment.
– Do not combine with calcium, particularly by IV route (serious arrhythmias).
– Monitor combination with:
  • amiodarone, macrolides, itraconazole, quinine, chloroquine (increased digoxin concentration);
  • potassium-depleting drugs: diuretics, corticoids, amphotericin B (increased risk of digoxin toxicity).
– Monitor if possible serum potassium level in patients taking potassium-depleting drugs and serum creatinine level in patients with renal impairment.
– Do not administer simultaneously with antacids such as aluminium hydroxide, etc., administer 2 hours apart.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– A loading dose may be administered in arrhythmias if a rapid digitalisation is required. It is usually not necessary for heart failure.
– *Storage: below 25°C* –

DIHYDROARTEMISININ/PIPERAQUINE = DHA/PPQ

Prescription under medical supervision

Therapeutic action
– Antimalarial

Indications
– Treatment of uncomplicated falciparum malaria
– Completion treatment following parenteral therapy for severe falciparum malaria

Presentation
– Co-formulated tablets of dihydroartemisinin (DHA)/piperaquine (PPQ), in blister pack, for a complete treatment for one individual
– There are 5 different blister packs:
  • 20 mg DHA/160 mg PPQ tablets blister pack of 3 tablets
  • 40 mg DHA/320 mg PPQ tablets blister pack of 3 tablets
  • 40 mg DHA/320 mg PPQ tablets blister pack of 6 tablets
  • 40 mg DHA/320 mg PPQ tablets blister pack of 9 tablets
  • 40 mg DHA/320 mg PPQ tablets blister pack of 12 tablets

Dosage and duration
– Child 5 to 25 kg: 2.5 to 10 mg/kg/day of DHA + 20 to 32 mg/kg/day of PPQ
– Child over 25 kg and adult: 2 to 10 mg/kg/day of DHA + 16 to 27 mg/kg/day of PPQ

Weight	20 mg/160 mg tablet	40 mg/320 mg tablet	Weight	20 mg/160 mg tablet	40 mg/320 mg tablet
5 to < 8 kg	1 tab	–	25 to < 36 kg	–	2 tab
8 to < 11 kg	1½ tab	–	36 to < 60 kg	–	3 tab
11 to < 17 kg	–	1 tab	60 to < 80 kg	–	4 tab
17 to < 25 kg	–	1½ tab	≥ 80 kg	–	5 tab

– Tablets are to be taken once daily for 3 days.

Contra-indications, adverse effects, precautions
– Do not administer in the event of cardiac disorders (bradycardia, heart rhythm disorders, congestive heart failure).
– Do not combine with drugs that prolong the QT interval (amiodarone, erythromycin, haloperidol, pentamidine, fluconazole, etc.).
– Administer with caution to patients > 60 years or with renal or hepatic impairment.
– May cause: cardiac disorders (QT prolongation, tachycardia); rarely, gastrointestinal disturbances, pruritus, hepatic disorders, joint and muscle pain.
– Monitor combination with: antiretrovirals (increased blood levels of these drugs), enzymes inducers such as rifampicin, carbamazepine, phenytoin, phenobarbital (reduced blood levels of DHA/PPQ).
– If the patient vomits within 30 minutes after administration, re-administer the full dose; if the patient vomits within 30 to 60 minutes, re-administer half the dose.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contraindication*

Remarks
– Take between meals, with a glass of water.
– The tablets may be crushed and mixed with water.
– *Storage: below 25°C* –  –

DOXYCYCLINE

Prescription under medical supervision

Therapeutic action
- Cycline antibacterial

Indications
- Cholera, louse-borne and tick-borne relapsing fevers, epidemic typhus and other rickettsioses, bubonic plague, brucellosis (in combination with streptomycin), lymphogranuloma venereum
- Lymphatic filariasis, alternative to ivermectin in onchocerciasis
- *Plasmodium falciparum* malaria prophylaxis
- Alternative to first-line treatments of leptospirosis, treponematosis, atypical pneumonia (*Mycoplasma pneumoniae*, *Chlamydophila pneumoniae*), cervicitis and urethritis due to *Chlamydia trachomatis* (in combination with a treatment for gonorrhoea), donovanosis, syphilis, cutaneous anthrax (no severe form), animal bites (if antibiotic therapy is indicated)

Presentation
- 100 mg tablet

Dosage
- *Louse-borne relapsing fever, epidemic typhus, cholera*
  Child under 8 years: 4 mg/kg as a single dose
  Child over 8 years: 100 mg as a single dose
  Adult: 200 mg (300 mg in cholera) as a single dose
- *Malaria prophylaxis*
  Child over 8 years (under 40 kg): 50 mg once daily
  Child over 8 years (over 40 kg) and adult: 100 mg once daily
- *Other indications*
  Child over 8 years: 100 mg (up to 200 mg in severe infections) once daily or in 2 divided doses
  Adult: 200 mg once daily or in 2 divided doses

Duration
- *Tick-borne relapsing fever, animal bites, leptospirosis, rickettsiosis, cervicitis and urethritis due to C. trachomatis*: 7 days; *cutaneous anthrax*: 7-10 days; *bubonic plague*: 10 days; *atypical pneumonia*: 10-14 days; *syphilis, Bejel, Pinta, lymphogranuloma*: 14 days; *filariasis*: minimum 4 weeks; *brucellosis*: 6 weeks; *donovanosis*: until complete healing of lesions; *malaria prophylaxis*: start 24 hours before departure and continue 4 weeks after the return.

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to cyclines and to children under 8 years (may damage teeth) except for single dose treatment.
- Administer with caution to patients with hepatic or renal impairment.
- May cause: gastrointestinal disturbances, allergic reactions, photosensitivity (protect exposed skin from sun exposure), oesophageal ulcerations (take tablets during meals with a glass of water in a upright position and more than 1 hour before going to bed).
- Do not give simultaneously with ferrous salts, zinc, calcium, antiacids (aluminium or magnesium hydroxide, etc.): administer 2 hours apart.
- Monitor combination with hepatic enzyme inducers: rifampicin, rifabutin, nevirapine, ritonavir, phenobarbital, phenytoin, carbamazepine, griseofulvin, etc. (reduction of the doxycycline efficacy).
- *Pregnancy*: ***CONTRA-INDICATED*** *during the 2nd and 3rd trimester (except for single dose treatment)*
- *Breast-feeding: avoid (risk of infant teeth discoloration)*

Remarks
- Also comes in 50 mg tablets, and 25 mg/5 ml and 50 mg/5 ml oral solutions.
- *Storage: below 25°C* –  – 

EFAVIRENZ = EFV = EFZ

Prescription under medical supervision

Therapeutic action
– Antiretroviral, HIV-1 non nucleoside reverse transcriptase inhibitor

Indications
– HIV-1 infection, in combination with other antiretroviral drugs

Presentation
– 200 mg breakable tablet, 200 mg capsule and 200 mg and 600 mg tablets

Dosage
– The dose is given once daily at bedtime:

Weight	Capsules or tablets
10 to < 15 kg	200 mg
15 to < 20 kg	250 mg
20 to < 25 kg	300 mg
25 to < 33 kg	350 mg
33 to < 40 kg	400 mg
≥ 40 kg	600 mg

Duration
– Depending on the efficacy and tolerance of efavirenz.

Contra-indications, adverse effects, precautions
– Do not administer to children under 3 years.
– Avoid administration in patients with severe hepatic impairment.
– Administer with caution to patients with psychiatric disorders (or history of) or epilepsy.
– Do not combine with amodiaquine.
– May cause:
  • neurological disorders (dizziness, insomnia, drowsiness, abnormal dreaming, impaired concentration, seizures);
  • psychiatric disorders (severe depression, suicidal ideation);
  • raised liver enzymes (ALAT);
  • skin reactions, possibly severe (Stevens-Johnson syndrome).
– Efavirenz reduces the efficacy of oral contraceptives: use a non-hormonal contraception or injectable medroxyprogesterone or an oral contraceptive containing 50 µg ethinylestradiol per tablet.
– *Pregnancy: avoid; effective contraception must be used during treatment.*

Remarks
– Many fixed-dose combinations containing efavirenz are available.
– *Storage: below 25°C*

ENALAPRIL

Prescription under medical supervision

Therapeutic action

– Antihypertensive, vasodilator (angiotensin-converting enzyme inhibitor)

Indications

– Hypertension
– Congestive heart failure

Presentation

– 2.5 mg, 5 mg and 20 mg tablets

Dosage and duration

– *Hypertension*
  Adult: initially 5 mg once daily, then increase the dose every 1 to 2 weeks, according to blood pressure, up to 10 to 40 mg once daily or in 2 divided doses
  In elderly patients, patients taking a diuretic or patients with renal impairment: start with 2.5 mg once daily as there is a risk of hypotension and/or acute renal impairment.
– *Congestive heart failure*
  Adult: 2.5 mg once daily, then increase the dose over 2 to 4 weeks, up to 10 to 20 mg once daily or in 2 divided doses

Contra-indications, adverse effects, precautions

– Do not administer to patients with history of hypersensitivity to enalapril.
– May cause:
  • hypotension, dry cough at night, hyperkalaemia, headache, dizziness, nausea, renal impairment;
  • allergic reactions, angioedema;
  • rarely: hepatitis, neutropenia and agranulocytosis in immunodeficient patients, anaemia in patients with chronic renal impairment.
– Reduce dosage in patients with renal impairment.
– Do not combine with potassium-sparing diuretics (spironolactone) or potassium.
– Monitor, if possible, serum creatinine and potassium levels (hyperkalaemia is frequent but of no concern if it remains below 5.5 mEq/litre).
– In patients taking a diuretic, reduce the dose of the diuretic when adding enalapril.
– *Pregnancy*: ***CONTRA-INDICATED***
– *Breast-feeding: no contra-indication at recommended doses*

Remarks

– Captopril has the same indications as enalapril, however its dosage differs and it must be taken 2 to 3 times daily.
– *Storage: below 25°C* – 

ERGOCALCIFEROL = VITAMIN D2
COLECALCIFEROL = VITAMIN D3

Prescription under medical supervision

Therapeutic action

- Vitamin necessary for the intestinal absorption of calcium and phosphate and for normal bone calcification

Indications

- Prevention and treatment of vitamin D deficiencies (rickets, osteomalacia)

Presentation

- 1.25 mg tablet or capsule (50 000 IU)
- 250 µg/ml oral suspension (10 000 IU/ml)

Also comes in different strengths, depending on the manufacturers.

Dosage and duration

Ergocalciferol and colecalciferol are used at the same doses:

- *Prevention of vita*min D deficiencies
  - 50 000 IU tablet or capsule:
    Child under 5 years: 100 000 IU every 3 months, during periods of limited sunlight
    Child over 5 years and adult: 100 000 IU every 3 months or 200 000 IU every 6 months
    Pregnant woman: 100 000 IU around the 6^{th}-7^{th} month of pregnancy
  - 10 000 IU/ml oral suspension:
    Child and adult: 400 IU once daily (10 µg daily) during periods of limited sunlight
    For children rarely exposed to sunlight or dark-skinned children, doses may be doubled.
- *Treatment of vitamin D deficiencies*
  Child and adult: 800 to 4000 IU once daily (20 to 100 µg daily) for 6 to 12 weeks, then continue with preventive dose
- Do not exceed 600 000 IU/year.

Contra-indications, adverse effects, precautions

- Do not administer to patients with hypercalcaemia, hypercalciuria, calcic lithiasis.
- Stop treatment if signs of overdosage occur: headache, anorexia, nausea, vomiting, increased thirst, polyuria.
- Avoid combination with thiazide diuretics (hydrochlorothiazide, etc.).
- Monitor, if possible, calcaemia and calciuria during curative treatment.
- Combine with a calcium supplementation at the start of curative treatment (500 mg to 1 g/day).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication. When curative treatment is being administered to the mother, do not give vitamin D to the child.*

Remarks

- The number of IU per drop of oral solution varies according to manufacturers. Check instructions for use.
- Vitamin D2 and D3 also come in ampoules for oral and/or parenteral use.
- *Storage: below 25°C –*
  Once opened, oral solution keeps 3 months.

ERYTHROMYCIN

Prescription under medical supervision

Therapeutic action

– Macrolide antibacterial

Indications

Erythromycin is an alternative to first-line antibacterials when they are not available or contra-indicated:

– Borreliosis (louse-borne and tick-borne relapsing fevers), non-venereal treponematoses, leptospirosis, conjunctivitis due to *Chlamydia trachomatis*
– Acute otitis media, tonsillitis and sinusitis; diphtheria, pertussis, pneumonia due to *Mycoplasma pneumoniae* and *Chlamydophila pneumoniae*
– Erysipela, impetigo, furuncle, leg ulcer
– Cervicitis and urethritis due to *Chlamydia trachomatis* (in combination with a treatment for gonorrhoea), donovanosis, chancroid, lymphogranuloma venereum, syphilis
– Completion treatment following parenteral therapy with erythromycin

Presentation

– 250 mg and 500 mg tablets
– 125 mg/5 ml powder for oral suspension, to be reconstituted with filtered water

Dosage

– *Louse-borne relapsing fever*
Child under 5 years: 250 mg as a single dose
Child over 5 years and adult: 500 mg as a single dose

Age	Weight	125 mg/5 ml susp.	250 mg tablet	500 mg tablet
< 2 months	< 5 kg	½ tsp x 2	¼ tab x 2	–
2 to < 12 months	5 to < 10 kg	1 tsp x 2	½ tab x 2	¼ tab x 2
1 to < 3 years	10 to < 15 kg	2 tsp x 2	1 tab x 2	½ tab x 2
3 to < 8 years	15 to < 25 kg	2 tsp x 3	1 tab x 3	½ tab x 3
8 to < 11 years	25 to < 35 kg	–	2 tab x 2	1 tab x 2
11 to < 13 years	35 to < 45 kg	–	2 tab x 3	1 tab x 3

– *Other indications*
Child: 30 to 50 mg/kg/day in 2 or 3 divided doses
Adult: 2 to 3 g/day in 2 or 3 divided doses

Duration

– *Tick-borne relapsing fever, leptospirosis, pertussis, cervicitis and urethritis, chancroid, impetigo, furuncle, leg ulcer*: 7 days; *sinusitis, erysipela*: 7 to 10 days; *tonsillitis, otitis*: 10 days; *atypical pneumonia*:10 to 14 days; *diphtheria, treponematoses, syphilis, lymphogranuloma venereum, donovanosis, conjunctivitis due to C. trachomatis*: 14 days.

Contra-indications, adverse effects, precautions

– Do not administer to patients with allergy to erythromycin or another macrolide.
– Administer with caution to patients with renal impairment (max. 1.5 g/day for adult with severe renal impairment) or hepatic impairment.
– May cause: gastrointestinal disturbances, reversible hearing disorders, heart rhythm disorders (QT prolongation); allergic reactions sometimes severe. In the event of allergic reaction, stop treatment immediately.
– Avoid combination with drugs that prolong the QT interval (amiodarone, chloroquine, co-artemether, fluconazole, haloperidol, mefloquine, moxifloxacin, ondansetron, pentamidine, quinine, etc.).
– Administer with caution and monitor use in patients taking carbamazepine or digoxin (increased their plasma levels).
– Avoid use in neonates less than 2 weeks (risk of pyloric stenosis).
– *Pregnancy and breast-feeding: no contra-indication*

Remarks

– Take tablets preferably one hour before or 2 hours after a meal.
– *Storage: below 25°C* –  – 
For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

ETHAMBUTOL = E

Prescription under medical supervision

Therapeutic action
- First line antituberculous antibacterial (bacteriostatic activity)

Indications
- Treatment of tuberculosis, in combination with other antituberculous antibacterials

Presentation
- 100 mg and 400 mg tablets

Dosage
- Child under 30 kg: 20 mg/kg (15 to 25 mg/kg/day) once daily
- Child over 30 kg and adult: 15 mg/kg (15 to 25 mg/kg/day) once daily
- Maximum dose: 1200 mg/day

Duration
- According to protocol

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe renal impairment or pre-existing optic neuritis (e.g. diabetic retinopathy).
- Reduce the dose in patients with renal impairment (15 to 25 mg/kg/dose 3 times per week).
- May cause: retrobulbar optic neuritis. Patients should be warned that they must immediately stop treatment and seek medical attention in the event of visual disturbances such as blurred vision, reduced visual acuity, blind spot (scotoma), green-red colour blindness. Visual alterations are usually reversible a few weeks after stopping ethambutol.
- The dosage must be carefully adjusted to the body weight (adverse effects are dose-dependant), especially for children under 5 years, as it is more difficult to detect visual alterations at this age.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- For patients on first-line antituberculous treatment, ethambutol is given as part of a fixed dose combination (isoniazid+rifampicin+pyrazinamide+ethambutol or isoniazid+ethambutol).
- *Storage: below 25°C* –  – 

ETHINYLESTRADIOL/LEVONORGESTREL

Prescription under medical supervision

Therapeutic action
- Combined hormonal contraceptive, estrogen-progestogen

Indications
- Oral contraception

Presentation
- 21-day pack: 21 active tablets of 30 micrograms ethinylestradiol + 150 micrograms levonorgestrel
- 28-day pack: 21 active tablets of 30 micrograms ethinylestradiol + 150 micrograms levonorgestrel and 7 inactive tablets

Dosage
- 21-day pack: 1 tablet daily at the same time, for 21 days, followed by a tablet-free interval of 7 days
- 28-day pack: 1 tablet daily at the same time, with no interruption, even during menstruation
  Start the first day of menstruation or immediately after abortion or as of the 21st day after childbirth if the woman does not breastfeed.
  It is also possible to start at any moment of the cycle (if the woman is not pregnant). In this case, contraception will be effective as of the 8th tablet. It is essential to use condoms during the first 7 days.

Duration
- If there are no adverse effects, as long as contraception is desired.

Contra-indications, adverse effects, precautions
- Do not administer to women with breast cancer, uncontrolled hypertension, uncontrolled or complicated diabetes, history of thromboembolic disorders, coronary insufficiency, valvular disease, stroke, severe or recent liver disease, unexplained vaginal bleeding, migraine with neurological signs, renal impairment, hyperlipidaemia, to women smokers over age 35.
- May cause: reduced menstrual flow, vaginal candidiasis, nausea, weight gain, breast tenderness, mood changes, acne and headache. Other rare and severe adverse effects require discontinuation of treatment: hypertension, cardiovascular and thromboembolic disorders, jaundice, migraine, visual disturbances.
- Hepatic enzyme inducers (rifampicin, rifabutin, nevirapine, ritonavir, phenobarbital, phenytoin, carbamazepine, griseofulvin, etc.) reduce the contraceptive efficacy. Use a non-hormonal contraceptive method (copper intrauterine device, condoms) or injectable medroxyprogesterone, or as a last resort an oral contraceptive containing 50 micrograms ethinylestradiol (however there is a risk of contraceptive failure and risk of adverse effects is increased).
- Clinical examinations must be carried out before (blood pressure, breasts) and during treatment (blood pressure).
- *Pregnancy*: ***CONTRA-INDICATED***
- *Breast-feeding*: ***CONTRA-INDICATED*** *before 6 weeks; not recommended between 6 weeks and 6 months (except if it is the only available or acceptable contraceptive method); no contra-indication after 6 months.*

Remarks
- If a woman misses an active tablet, she should take it as soon as possible and continue treatment as normal. If she misses by over 12 hours, contraceptive protection will be lessened. It is therefore recommended to use an additional contraceptive method: condoms for 7 days and, if she has had sexual intercourse within 5 days before forgetting the tablet, emergency contraception.
- 28-day packs can simplify use as there is no interruption between two packs. Explain to the woman which are active and inactive tablets. She must be careful not to start with inactive tablets.
- *Storage: below 25°C*

FERROUS salts

Therapeutic action
- Antianaemia drug

Indications
- Prevention and treatment of iron-deficiency anaemia

Presentation
- 200 mg ferrous sulfate tablet containing 65 mg of elemental iron

Also comes in syrup and in different compositions and strengths.

Dosage (expressed in elemental iron)
- *Prevention of iron-deficiency anaemia*

  Child under 5 years: 15 to 30 mg once daily = ¼ to ½ tab/day
  Child over 5 years: 30 mg once daily = ½ tab/day
  Pregnant woman: 60 mg once daily = 1 tab/day
- *Treatment of iron-deficiency anaemia*

  Child under 2 years: 30 mg once daily = ½ tab/day
  Child from 2 to 12 years: 60 mg once daily = 1 tab/day
  Adult: 120 to 180 mg/day in 2 to 3 divided doses = 2 to 3 tab/day
- Do not exceed indicated doses.

Duration
- *Prevention*: during risk period (pregnancy, malnutrition)
- *Treatment*: 3 months

Contra-indications, adverse effects, precautions
- Do not administer to patients with sickle-cell anaemia.
- May cause: gastrointestinal disturbances (epigastric pain, diarrhoea or constipation, black stools).
- Do not exceed recommended doses, especially in children.
- Toxic dose: 30 mg/kg of elemental iron (100 mg/kg of ferrous sulfate).
- Signs of overdose: bloody diarrhoea, heart failure.
- Absorption of both ferrous salts and doxycycline or antacids is decreased when they are given concomitantly. Administer each drug at least 2 hours apart.
- Do not administer simultaneously with doxyccline or antacids: administer 2 hours apart.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Take during meals to reduce gastrointestinal disturbances.
- For treatment, preferably use tablets containing both ferrous salts and folic acid.
- Other ferrous salts may be used. Ensure the dose of elemental iron is the same as that indicated above (200 mg ferrous fumarate = 65 mg elemental iron; 300 mg ferrous gluconate = 35 mg elemental iron).
- *Storage: below 25°C*

FLUCONAZOLE

Prescription under medical supervision

Therapeutic action

– Antifungal

Indications

– Oesophageal candidiasis
– Moderate to severe oropharyngeal candidiasis
– Secondary prophylaxis of recurrent candidiasis in immunocompromised patients
– Cryptococcocal meningitis, after treatment with amphotericin B + flucytosine or in combination with amphotericin B
– Secondary prophylaxis of cryptococcocal infections

Presentation

– 50 mg, 100 mg and 200 mg capsules or tablets
– 50 mg/5 ml oral solution

Dosage and duration

– *Oesophageal candidiasis, oropharyngeal candidiasis, secondary prophylaxis of candidiasis*
  Child over 1 week: 3 to 6 mg/kg once daily
  Adult: 50 to 200 mg once daily
  These doses may be increased up to 400 mg/day if necessary. The treatment lasts 14 to 21 days for oesophageal candidiasis; 7 to 14 days for oropharyngeal candidiasis; as long as required for secondary prophylaxis.

– *Cryptococcocal meningitis*

After treatment with amphotericin B + flucytosine	Child > 1 week	6 to 12 mg/kg once daily (max. 800 mg/day) for 8 weeks
	Adult	400 to 800 mg once daily for 8 weeks
or		
In combination with amphotericin B	Child > 1 week	12 mg/kg once daily (max. 800 mg/day) for 2 weeks (with amphotericin B) then 6 to 12 mg/kg once daily for 8 weeks
	Adult	800 mg once daily for 2 weeks (with amphotericin B) then 400 to 800 mg once daily for 8 weeks

– *Secondary prophylaxis of cryptococcocal infections*
  Child: 6 mg/kg once daily (max. 200 mg/day), as long as required
  Adult: 200 mg once daily, as long as required

Contra-indications, adverse effects, precautions

- Administer with caution to patients with hepatic or renal impairment, cardiac disorders (bradycardia, heart rhythm disorders, etc.). Reduce the dose by half in patients with renal impairment.
- May cause: gastrointestinal disturbances, headache, skin reactions sometimes severe, anaphylactic reactions; severe hepatic disorders, haematologic (leukopenia, thrombocytopenia) and cardiac disorders (QT-prolongation). Stop treatment in the event of anaphylactic reaction, hepatic disorders or severe skin reaction.
- In the event of prolonged treatment, monitor hepatic function.
- Do not administer simultaneously with rifampicin, administer 12 hours apart (rifampicin in the morning, fluconazole in the evening).
- Avoid or monitor combination with:
  - drugs that prolong the QT interval (amiodarone, chloroquine, erythromycin, haloperidol, mefloquine, pentamidine, quinine);
  - warfarin, carbamazepine, phenytoin, rifabutin, benzodiazepines, calcium-channel blockers, certain antiretrovirals (e.g. nevirapine, saquinavir, zidovudine): increased blood concentration of these drugs.
- *Pregnancy and breast-feeding: to be used only in severe or life-threatening infections, particularly during the first trimester of pregnancy (risk of foetal malformations).*

Remarks

- For cryptococcocal meningitis, when amphotericin B is not available or not tolerated, fluconazole may be administered alone:
  Child over 1 week: 12 mg/kg once daily (max. 1200 mg/d) for 2 weeks then, 12 mg/kg once daily (max. 800 mg/d) for 8 weeks
  Adult: 1200 mg once daily for 2 weeks then, 800 mg once daily for 8 weeks
- For the treatment of histoplasmosis, fluconazole is less effective than itraconazole. It should be used (child: 10 to 12 mg/kg once daily, max. 400 mg/d ; adult: 400 mg on Day 1 then 200 to 400 mg once daily, for 6 to 12 weeks) only in patients unable to tolerate itraconazole.
- For the treatment of dermatophytosis of the scalp, fluconazole may be used as a secondary option (child: 6 mg/kg once daily, max. 200 mg/d; adult: 200 mg once daily, for 2 to 4 weeks) but itraconazole is preferred for this indication.
- For the treatment of genital candidiasis (vulvovaginitis, balanitis), fluconazole is only used if local treatment fails: 150 mg as a single dose in adults.
- *Storage: below 25°C –* 
  Once reconstituted, oral solution keeps for 2 weeks.

FLUCYTOSINE

Prescription under medical supervision

Therapeutic action
- Antifungal

Indications
- Cryptococcocal meningitis (induction phase), in combination with amphotericin B

Presentation
- 500 mg capsule

Also comes in 250 mg capsule and 500 mg tablet.

Dosage and duration
- Child over 1 week and adult: 100 mg/kg/day in 4 divided doses for 2 weeks, in combination with amphotericin B

Contra-indications, adverse effects, precautions
- Administer with caution and monitor use in patients > 60 years or with renal impairment or haematological disorders.
- Reduce the dose by half (50 mg/kg/day in 2 divided doses) in patients with renal impairment.
- May cause: gastrointestinal disturbances, haematological disorders (leukopenia, thrombocytopenia, less frequently, agranulocytosis), increase in transaminase levels, allergic reactions sometimes severe; sometimes, confusion and hallucinations.
- Monitor blood count and liver and renal function until the end of treatment.
- *Pregnancy and breast-feeding: flucytosine is generally not recommended. It is teratogenic in animals and its safety in pregnant or lactating women has not been established. However, taking into account the severity of the disease, the potential benefit of treatment for the mother and in the absence of a safer alternative, it may be used despite the potential risks for the child.*

Remarks
- If amphotericin B is not available, flucytosine may be used at the same dose in combination with fluconazole.
- For children, tablets may be crushed.
- *Storage: below 25°C*

FLUOXETINE

Prescription under medical supervision

Therapeutic action
- Antidepressant, selective serotonin re-uptake inhibitor (SSRI)

Indications
- Major depression

Presentation
- 20 mg capsule

Dosage
- Adult: 20 mg once daily in the morning
- Administer 20 mg on alternate days to patients with hepatic impairment or severe renal impairment.

Duration
- 6 months minimum. The treatment should be discontinued gradually (20 mg on alternate days for 2 weeks). If signs of relapse occur, increase the dose.

Contra-indications, adverse effects, precautions
- Administer with caution and monitor use in patients with epilepsy, diabetes, history of gastrointestinal bleeding or bipolar disorders.
- May cause:
  - allergic reactions (rare): stop treatment;
  - insomnia or drowsiness (caution when driving/operating machinery), gastrointestinal disturbances (take during a meal), headache, dizziness, blurred vision;
  - psychic disorders: exacerbation of anxiety, possibility of a suicide attempt at the beginning of therapy, manic episode during the course treatment;
  - withdrawal symptoms (dizziness, paresthesia, nightmares, etc.) possible if the treatment is discontinued abruptly.
- Do not combine with another antidepressant.
- Monitor combination (up to 5 weeks after the discontinuation of fluoxetine) with: carbamazepine, haloperidol, risperidone, phenytoin (increases they toxicity), drugs which lower the seizure threshold (antispychotics, mefloquine, tramadol, etc.), lithium and other serotonergics.
- Avoid aspirin and NSAIDs (risk of bleeding) and alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, observe the newborn infant if the mother was under treatment in the 3rd trimester (risk of irritability, tremors, hypotony, sleeping disorders, etc.).*
- *Breast-feeding: avoid. Prefer paroxetine or amitriptyline.*

Remarks
- Do not open the capsules.
- The antidepressant effect is not immediate. It is necessary to wait 3 weeks before assessing therapeutic efficacy. This must be explained to the patient.
- In case of insufficient response after 4 weeks, dosage may be increased to 40 mg/day, except in patients with hepatic impairment or severe renal impairment.
- In elderly patients, SSRI are preferred to tricyclics (less contraindications, less adverse effects).
- *Storage: below 25°C*

FOLIC acid = VITAMIN B9

Prescription under medical supervision

Therapeutic action
- Antianaemia drug

Indications
- Treatment of folate-deficient megaloblastic anaemias: severe malnutrition, repeated attacks of malaria, intestinal parasitosis, etc.

Presentation
- 5 mg tablet

Dosage and duration
- Child under 1 year: 0.5 mg/kg once daily for 4 months
- Child over 1 year and adult: 5 mg once daily for 4 months; 15 mg once daily in malabsorption states

Contra-indications, adverse effects, precautions
- Do not combine with sulfadiazine-pyrimethamine in patients with toxoplasmosis nor sulfadoxine-pyrimethamine in patients with malaria: folic acid reduces the efficacy of these treatments.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Folic acid must not be used for the treatment of anaemia due to antifolates (pyrimethamine, trimethoprim or methotrexate). Use folinic acid.
- Folic acid is also used for primary and secondary prophylaxis of neural tube defects and for prophylaxis of acute anaemia in patients with sickle-cell anaemia.
- *Storage: below 25°C* – 

FERROUS salts/FOLIC acid

Indications
- Prevention of iron and folic acid deficiency, mainly during pregnancy
- Treatment of iron deficiency

Presentation
- Tablet of 200 mg ferrous sulfate (65 mg of elemental iron) + 400 µg folic acid

Dosage
- See ferrous salts

Remarks
- This fixed-dose combination is not effective for the treatment of folic acid deficiency because of its low dose.
- *Storage: below 25°C* – 

FOSFOMYCIN TROMETAMOL

Prescription under medical supervision

Therapeutic action
- Phosphonic acid antibacterial

Indications
- Acute uncomplicated cystitis in women, without fever nor flank pain
- Asymptomatic bacteriuria in pregnant women

Presentation
- Granules for oral solution in 3 g sachet, to be dissolved in filtered water

Dosage and duration
- 3 g as a single dose

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe renal impairment, allergy to fosfomycin.
- May cause: gastrointestinal disturbances, skin rash; rarely, allergic reactions.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- In the treatment of cystitis, symptoms should improve within 3 days of treatment. If not, the patient should consult again. Treatment failure may be due to the presence of naturally fosfomycin-resistant organisms (*Staphylococcus saprophyticus*).
- Take between meals or at bedtime (food decreases absorption).
- Fosfomycin is not included in the WHO list of essential medicines.
- *Storage: below 25°C* –  – 

FUROSEMIDE

Prescription under medical supervision

Therapeutic action
- Diuretic

Indications
- Oedema caused by renal, hepatic or congestive heart failure
- Hypertension (prefer hydrochlorothiazide for this indication)

Presentation
- 20 mg and 40 mg tablets

Dosage
- Child: 1 to 2 mg/kg once daily
- Adult: 20 to 40 mg once daily
- Reduce doses according to clinical response.
- In case of persistant oedema: 80 to 150 mg once or in 2 divided doses, then reduce dosage.

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer for other types of oedema, especially those due to kwashiorkor.
- May cause:
  - hypokalaemia (especially in case of cirrhosis), poor nutritional status, congestive heart failure (furosemide enhances toxicity of digoxin);
  - dehydration and orthostatic hypotension.
- *Pregnancy: avoid; do not use for hypertension in pregnancy.*
- *Breast-feeding: avoid (excreted in milk and may reduce milk production)*

Remarks
- Give in the morning.
- A lot of fruit should be eaten during treatment (dates, bananas, mangos, oranges, etc.) in order to supply additional potassium. Use potassium tablets as well if available.
- *Storage: below 25°C* – 

GLIBENCLAMIDE

Prescription under medical supervision

Therapeutic action

– Sulphonylurea hypoglycaemic which stimulates secretion of pancreatic insulin

Indications

– Adult-onset diabetes, insulin-independent and not controlled by well followed diet
Measurement of blood glucose levels is essential in establishing diagnosis and control of the disease process.

Presentation

– 2.5 mg and 5 mg tablets
Also comes in 1.25 mg tablet.

Dosage

– Adult: initially, 2.5 to 5 mg once daily in the morning
Adjust dosage until diabetic control is obtained; maximum dose: 15 mg/day.
Adjust dosage gradually and very cautiously for elderly patients.

Duration

– According to clinical response and laboratory tests

Contra-indications, adverse effects, precautions

– Do not administer if:
  • insulin-dependent diabetes, juvenile diabetes mellitus;
  • severe renal or hepatic function impairment; allergy to sulphonamides.
– May cause:
  • hypoglycaemia due to excessive doses, especially in elderly patients; insufficient intake of sugar; hepatic or renal failure. Treat mild hypoglycaemia with intake of oral sugar and IV injection of hypertonic glucose solution if severe; adjust dosage;
  • allergic reactions.
– Avoid combination with: co-trimoxazole, aspirin and other anti-inflammatory drugs, beta-blockers (risk of hypoglycaemia), barbiturates, glucocorticoids, oral contraceptives (antagonise hypoglycaemic effect), etc.
– Avoid combination with alcohol: antabuse reaction.
– *Pregnancy*: ***CONTRA-INDICATED*** *during the third trimester*
– *Breast-feeding*: ***CONTRA-INDICATED***

Remarks

– Use only when diabetes cannot be controlled with diet alone, and monitor blood-glucose levels regularly.
– Use of oral antidiabetics does not mean dietetic measures should be cancelled.
– Insulin may be required in patients having surgery.
– Chlorpropamide is a long-acting sulphonylurea hypoglycaemic used at doses of 125 to 250 mg once daily. Risk of hypoglycaemia is higher than with other antidiabetics.
– *Storage: below 25°C* –

GLYCERYL TRINITRATE = NITROGLYCERIN = TRINITRIN

Prescription under medical supervision

Therapeutic action
– Vasodilator, antianginal

Indications
– Short-term prophylaxis and treatment of angina

Presentation
– 0.5 mg sublingual tablet

Dosage
– *Short-term prophylaxis of acute angina (sublingually)*
  Adult: 0.5 to 1 mg taken 5 to 10 minutes before a precipitating event (exercise, stress, etc.)
– *Treatment of acute angina (sublingually)*
  Adult: 0.5 to 1 mg, to be repeated 1 to 3 times at 3-4 minute intervals
  Maximum dose: 3 mg/day

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– Do not administer to patients with obstructive cardiomyopathy, hypotension, shock.
– May cause: orthostatic hypotension (especially in elderly patients), headache, nausea, flushing of the face, haemolysis in patients with G6PD deficiency, severe hypotension with risk of circulatory collapse in the event of overdose.
– Use the lowest effective dose in patients taking another nitrate derivative, a vasodilator or an antihypertensive drug and in elderly patients.
– Combination with antihypertensive drugs, diuretics, vasodilators and alcohol enhances hypotensive effects.
– Do not combine with sildenafil (risk of acute coronary syndrome).
– *Pregnancy: not recommended (safety is not established)*
– *Breast-feeding: not recommended (safety is not established)*

Remarks
– Tablet must be crunched first, then slowly dissolved under the tongue.
– Antianginal effect appears within less than 5 minutes and persists for less than 1 hour.
– Sustained-release formulations are used for the long-term management of angina and the treatment of congestive heart failure.
– *Storage: below 25°C, preferably in airtight glass container* –  – 

GRISEOFULVIN

Prescription under medical supervision

Therapeutic action
- Antifungal

Indications
- Dermatophyte infections of the scalp (scalp ringworm)
- Dermatophyte infections of the skin and folds, in the event of extended lesions or if the topical treatment has failed

Presentation
- 125 mg and 500 mg tablets

Also comes in 250 mg tablet and 125 mg/5 ml oral solution.

Dosage
- Child 1 to 12 years: 10 to 20 mg/kg once daily or in 2 divided doses, during meals (max. 500 mg/day)
- Child over 12 years and adult: 500 mg to 1 g once daily or in 2 divided doses, during meals (max. 1 g/day)

Age	Weight	125 mg/5 ml susp.	125 mg tablet	500 mg tablet
1 to < 2 years	10 to < 13 kg	5 ml	1 tab	¼ tab
2 to < 7 years	13 to < 24 kg	10 ml	2 tab	½ tab
7 to < 12 years	24 to < 35 kg	–	4 tab	1 tab
≥ 12 years and adult	≥ 35 kg	–	4 to 8 tab	1 to 2 tab

Duration
- *Scalp*: 6 weeks on average
- *Skin and folds*: 4 to 6 weeks

Contra-indications, adverse effects, precautions
- Do not administer to patients with hepatic impairment, lupus erythematous, porphyria (may trigger attacks of acute porphyria).
- May cause: gastrointestinal disturbances, headache, skin reactions (eruption, urticaria, etc.); photosensitivity (protect exposed skin from sun exposure).
- Monitor patients taking warfarin (anticoagulant effect decreased).
- Avoid alcohol during treatment (antabuse effect).
- *Pregnancy and breast-feeding*: **CONTRA-INDICATED**. *Apply a topical treatment (miconazole 2% cream or Whitfield ointment) in order to limit the lesions until it is possible to use griseofulvin.*

Remarks
- For young children, if the oral solution is not available, crush the tablet and mix it with a liquid.
- *Storage: below 25°C*

HALOPERIDOL

Prescription under medical supervision

Therapeutic action
- Antipsychotic (neuroleptic)

Indications
- Acute or chronic psychosis
- Severe anxiety not controlled by benzodiazepines

Presentation
- 5 mg tablet
- 2 mg/ml oral solution (1 ml = 20 drops)

Also comes in 0.5 and 2 mg tablets.

Dosage
- *Acute or chronic psychosis*
  Adult: 2 to 10 mg/day in 2 divided doses. If necessary, these doses may be gradually increased up to 20 mg/day according to clinical response. Once the patient is stable, the maintenance dose is administered once daily in the evening.
- *Severe anxiety not controlled by benzodiazepines*
  Adult: 1 mg/day (10 drops/day) in 2 divided doses
- Whatever the indication, reduce the dose by half in elderly patients.
- Use the lowest effective dose, especially in the event of prolonged treatment.

Duration
- *Acute psychosis*: minimum 3 months; *chronic psychosis*: minimum one year. The treatment should be discontinued gradually (over 4 weeks). If signs of relapse occur, increase the dose.
- *Severe anxiety*: maximum 4 weeks.

Contra-indications, adverse effects, precautions
- Do not administer to patients with cardiac disorders (cardiac failure, recent myocardial infarction, conduction disorders, bradycardia, etc.); to elderly patients with dementia (e.g. Alzheimer's disease).
- Administer with caution and carefully monitor use in patients > 60 years and patients with hypokalaemia, hyperthyroidism, renal or hepatic impairment, Parkinson's disease.
- May cause: drowsiness (caution when driving/operating machinery), extrapyramidal syndrome, early and tardive dyskinesia, sexual dysfunction, QT-prolongation, ventricular arrhythmia, orthostatic hypotension; neuroleptic malignant syndrome (unexplained hyperthermia with neuromuscular disorders), rare but requiring immediate treatment discontinuation.
- In the event of extrapyramidal symptoms, combine with biperiden.
- Avoid combination with: carbamazepine, rifampicin, fluoxetine, lithium, drugs that prolong the QT interval (amiodarone, chloroquine, erythromycin, fluconazole, mefloquine, pentamidine, quinine).
- Avoid alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, monitor the newborn infant for reversible extrapyramidal effects (tremors) if the mother was under high dose treatment in the 3rd trimester.*
- *Breast-feeding: avoid; if absolutely necessary, administer less than 5 mg/day.*

Remarks
- Haloperidol produces less orthostatic hypotension than chlorpromazine and has little anticholinergic effects. It is less sedative than chlorpromazine but produces more extrapyramidal symptoms.
- *Storage: below 25°C*

HYDROCHLOROTHIAZIDE

Prescription under medical supervision

Therapeutic action
- Diuretic

Indications
- Moderate or severe hypertension
- Oedema caused by renal, hepatic or congestive heart failure

Presentation
- 50 mg tablet

Also comes in 25 mg tablet.

Dosage
- *Hypertension*
  Adult: 25 to 50 mg/day in 2 divided doses
- *Oedema*
  Child: 1 mg/kg/day in 2 divided doses
  Adult: 50 to 100 mg in the morning, on alternate days

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer if severe renal failure, allergy to sulphonamides; for other types of oedema, especially those due to kwashiorkor.
- May cause: dehydration, hypotension, hypokalaemia, photosensitivity, hyperglycaemia.
- *Pregnancy*: ***CONTRA-INDICATED***
- *Breast-feeding*: ***CONTRA-INDICATED***

Remarks
- Often used in combination with an antihypertensive drug.
- A lot of fruit should be eaten during treatment (dates, bananas, mangos, oranges, etc.), in order to supply additional potassium. Use potassium tablets as well if available.
- *Storage: below 25°C* – 

HYOSCINE BUTYLBROMIDE = BUTYLSCOPOLAMINE

Prescription under medical supervision

Therapeutic action
– Antispasmodic

Indications
– Spasms of the gastrointestinal tract and genitourinary tract

Presentation
– 10 mg tablet

Dosage
– Child from 6 years to 12 years: 10 mg to be repeated up to 3 times per day if necessary
– Adult: 10 to 20 mg to be repeated up to 3 or 4 times per day if necessary

Duration
– According to clinical response; no prolonged treatment.

Contra-indications, adverse effects, precautions
– Do not administer tablets to children under 6 years (use injectable hyoscine butylbromide).
– Do not administer to patients with urethro-prostatic disorders, cardiac disorders, glaucoma.
– Do not administer to children with high fever.
– May cause: urinary retention, dryness of the mouth, constipation, blurred vision, tachycardia.
– Administer with caution and under close supervision to patients taking other anticholinergic drugs (antidepressants, neuroleptics, H-1 antihistamines, antiparkinsonians, etc.).
– *Pregnancy: no contra-indication;* NO PROLONGED TREATMENT
– *Breast-feeding: no contra-indication;* NO PROLONGED TREATMENT

Remarks
– Other antispasmodics are used in certain countries:
  • atropine (child: 0.01 mg/kg every 4 to 6 hours, without exceeding 0.4 mg/day; adult: 0.4 to 0.6 mg every 4 to 6 hours)
  • propantheline (adult: 45 to 120 mg/day in 3 divided doses)
– Antispasmodic drugs are not included in the WHO list of essential medicines.
– *Storage: below 25°C* –

IBUPROFEN

Prescription under medical supervision

Therapeutic action
– Analgesic, antipyretic, non-steroidal anti-inflammatory (NSAID)

Indications
– Mild to moderate pain, fever, rheumatic diseases

Presentation
– 200 mg and 400 mg enteric-coated tablets
– 100 mg/5 ml oral suspension, with pipette graduated per kg of body weight (each kg graduation corresponds to 10 mg ibuprofen)

Dosage
– *Pain, fever*
Child over 3 months: 30 mg/kg/day in 3 divided doses (= one pipette filled up to the graduation corresponding to the child's weight, 3 times per day)
Adult: 1200 to 1800 mg/day in 3 to 4 divided doses
In post-operative period, ibuprofen should be given on a regular basis, every 8 hours, rather than "as needed".

Age	Weight	100 mg/5 ml susp.	200 mg tablet	400 mg tablet
3 months to < 6 years	5 to < 20 kg	Use the graduated pipette	–	–
6 to < 12 years	20 to < 40 kg	–	1 to 2 tab x 3	–
≥ 12 years and adult	≥ 40 kg	–	2 tab x 3 or 4	1 tab x 3 or 4

– *Rheumatoid arthritis*
Child: up to 40 mg/kg/day maximum
Adult: up to 3200 mg/day maximum

Duration
– According to clinical response; *post-operative pain*: 8 days maximum

Contra-indications, adverse effects, precautions
– Do not administer to children under 3 months, patients with allergy to NSAID, peptic ulcer, coagulation defects, haemorrhage, surgery with risk of major blood loss, severe renal or hepatic impairment, severe heart failure, severe malnutrition, uncorrected dehydration or hypovolaemia, severe infection.
– May cause: allergic reactions, epigastric pain, peptic ulcer, haemorrhage, renal impairment.
– Administer with caution to elderly or asthmatic patients.
– Do not combine with: methotrexate, anticoagulants and other NSAIDs.
– Monitor combination with diuretics and angiotensin-converting enzyme inhibitors (drink plenty of fluids to avoid renal failure).
– *Pregnancy: avoid.* ***CONTRA-INDICATED*** *from the beginning of the 6th month. Use paracetamol.*
– *Breast-feeding: no contra-indication (short term treatment)*

Remarks
– Take with meals.
– Clean the graduated pipette after use. Shake the bottle before use.
– If ibuprofen alone does not provide pain relief, combine with paracetamol and/or an opioid analgesic.
– *Storage: below 25°C* –  – 
Once opened, oral suspension must be stored between 8°C and 15°C.

IPRATROPIUM bromide nebuliser solution

Prescription under medical supervision

Therapeutic action
- Bronchodilator, anticholinergic drug

Indications
- Acute life-threatening asthma attack, in combination with salbutamol

Presentation and route of administration
- Solution for inhalation, in unit dose vial of 0.25 mg in 1 ml (0.25 mg/ml) and 0.5 mg in 2 ml (0.25 mg/ml), to be administered via a nebuliser

Dosage and duration
- Child 1 month to < 12 years: 0.25 mg/nebulisation, to be repeated every 20 to 30 minutes if necessary
- Child 12 years and over and adult: 0.5 mg/nebulisation, to be repeated every 20 to 30 minutes if necessary
- The nebuliser should always be driven by oxygen.

Contra-indications, adverse effects, precautions
- May cause:
  - throat irritation, headache, cough, vomiting;
  - anticholinergic effects: dryness of the mouth, constipation, dilation of the pupils, blurred vision, urinary retention, tachycardia.
- Administer with caution to elderly patients and patients with closed-angle glaucoma, benign prostatic hyperplasia, urinary retention.
- Avoid or monitor combination with drugs known to have anticholinergic effects: tricyclic antidepressants (amitriptyline, clomipramine), H-1 antihistamines (chlorphenamine, promethazine), antiparkinsonians (biperiden), antispasmodics (atropine, hyoscine butylbromide), neuroleptics (chlorpromazine), etc. (increased risk of adverse effects).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Volumes of nebuliser solution to be administered are insufficient to obtain efficient nebulisation in most nebulisers: add ipratropium to salbutamol and then 0.9% sodium chloride to obtain a total volume of 5 ml in the reservoir of the nebuliser. The diluted solution is dispersed with oxygen at a flow rate of 6 to 8 litres/minute. Stop the nebulisation when the reservoir is empty, after around 10 to 15 minutes.
- *Storage: below 25°C* – 

IODIZED OIL

Therapeutic action
- Iodine supplementation

Indications
- Prevention and treatment of severe iodine deficiency

Presentation
- 190 mg capsule of iodine

Dosage and duration
- Child under 1 year: 1 capsule (190 mg) once a year
- Child from 1 to < 6 years: 2 capsules (380 mg) once a year
- Child from 6 to 15 years: 3 capsules (570 mg) once a year
- Pregnant woman or women of childbearing age: 2 capsules (380 mg) once a year

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to iodine or hyperthyrodism.
- Do not administer to patients over 45 years.
- May cause: allergic reactions, dysthyroidism.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- For young children, open the capsule and empty the contents into the child's mouth.
- Also comes in 10 ml ampoules containing 480 mg/ml to be administered by IM injection using a glass syringe.
- *Storage: below 25°C* –  – 

ISONIAZID = H

Prescription under medical supervision

Therapeutic action
- First line antituberculous antibacterial (bactericidal activity)

Indications
- Treatment of tuberculosis, in combination with other antituberculous antibacterials
- Prophylaxis of tuberculosis

Presentation
- 100 mg and 300 mg tablets
- 50 mg/5 ml oral solution

Dosage
- Child under 30 kg: 10 mg/kg (7 to 15 mg/kg/day) once daily, on an empty stomach
- Child over 30 kg and adult: 5 mg/kg (4 to 6 mg/kg/day) once daily, on an empty stomach
- Maximum dose: 300 mg/day

Duration
- According to protocol

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe hepatic impairment.
- May cause:
  - peripheral neuropathy, especially in malnourished, alcoholic, diabetic, HIV-infected patients; pregnant and breast-feeding women; patients with renal impairment or chronic hepatic disease and patients receiving high doses of isoniazid;
  - hepatic disorders (jaundice), especially in alcoholic patients, patients receiving rifampicin, patients > 35 years;
  - hypersensitivity reactions, psychotic reactions.
- If signs of hepatotoxicity (e.g. jaundice) develop, isoniazid should be discontinued until symptoms resolve.
- Administer with caution and closely monitor patients taking phenytoin, carbamazepine, benzodiazepines (risk of toxicity), warfarin (risk of bleeding), cycloserine (increased risk of peripheral neuropathy).
- Administer pyridoxine (vitamin B6) in patients at risk of peripheral neuropathy (child: 5 mg/day; adult: 10 mg/day).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication; supplement the infant with pyridoxine (5 mg/day).*

Remarks
- Prophylactic treatment should be considered only after excluding active tuberculosis.
- For patients on first-line antituberculous treatment, isoniazid is given as part of a fixed dose combination (isoniazid+rifampicin+pyrazinamide+ethambutol or isoniazid+rifampicin+pyrazinamide or isoniazid +rifampicin).
- *Storage: below 25°C* –  – 

ISOSORBIDE DINITRATE

Prescription under medical supervision

Therapeutic action
- Vasodilator, antianginal

Indications
- Prophylaxis and treatment of acute angina
- Adjunctive therapy in left congestive heart failure

Presentation
- 5 mg tablet

Dosage
- *Short-term prophylaxis of acute angina* (sublingually)
  Adult: 5 to 10 mg taken 10 minutes before a precipitating event (exercise, stress, etc.)
- *Long-term prophylaxis of angina and treatment of heart failure* (orally)
  Adult: 30 to 120 mg/day in 2 to 3 divided doses
  Gradually increase the dose until effective. Do not stop treatment abruptly.
- *Treatment of acute angina* (sublingually)
  Adult: 5 to 10 mg, to be repeated after 10 minutes if necessary

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer to patients with obstructive cardiomyopathy, hypotension, shock.
- May cause: orthostatic hypotension (especially in elderly patients), headache, nausea, flushing of the face, haemolysis in patients with G6PD deficiency, severe hypotension with risk of circulatory collapse in the event of overdose.
- Use the lowest effective dose in patients taking another nitrate derivative, a vasodilator or an antihypertensive drug and in elderly patients.
- Combination with antihypertensive drugs, diuretics, vasodilators and alcohol enhances hypotensive effects.
- Do not combine with sildenafil (risk of acute coronary syndrome).
- *Pregnancy: not recommended (safety is not established)*
- *Breast-feeding: not recommended (safety is not established)*

Remarks
- Sublingual tablet must be crunched first, then slowly dissolved under the tongue. Oral tablet must be swallowed whole.
- By sublingual route, antianginal effect appears within less than 10 minutes and persists for 1 to 2 hours.
- Sustained-release formulations are used for the long-term management of angina and the treatment of congestive heart failure. The time interval between each administration depends on the preparations.
- *Storage: below 25°C* –  – 

ITRACONAZOLE

Prescription under medical supervision

Therapeutic action
- Antifungal

Indications
- Histoplasmosis and penicilliosis: treatment and secondary prophylaxis
- Dermatophytosis of the scalp (*Tinea capitis*)

Presentation
- 100 mg capsule

Also comes in 50 mg/5 ml oral solution.

Dosage and duration
- *Histoplasmosis (moderate symptoms)*
  Child: 5 mg/kg once daily for 6 to 12 weeks
  Adult: 600 mg/day in 3 divided doses for 3 days then 200 mg once daily or 400 mg/day in 2 divided doses for 6 to 12 weeks
- *Histoplasmosis (severe symptoms, disseminated form)*
  Same treatment for 12 weeks, preceded by one to 2 weeks of treatment with amphotericin B
- *Penicilliosis (moderate symptoms)*
  Adult: 400 mg/day in 2 divided doses for 8 weeks
- *Penicilliosis (severe symptoms)*
  Same treatment for 10 weeks, preceded by 2 weeks of treatment with amphotericin B
- *Secondary prophylaxis of histoplasmosis and penicilliosis*
  Adult: 200 mg once daily as long as required
- *Dermatophytosis of the scalp*
  Child: 3 to 5 mg/kg once daily for 4 weeks
  Adult: 200 mg once daily for 2 to 4 weeks

Contra-indications, adverse effects, precautions
- Administer with caution and monitor use in patients > 60 years or with hepatic or renal impairment or congestive heart failure.
- May cause: gastrointestinal disturbances, headache, skin reactions sometimes severe, anaphylactic reaction, hepatic disorders sometimes severe, paraesthesia, oedema, cardiac failure. Stop treatment in the event of anaphylactic reaction, hepatic disorders or severe skin reaction.
- In case of prolonged treatment, monitor liver function.
- Do not combine with quinidine (risk of arrhythmia).
- Avoid or monitor combination with amiodarone, calcium-channel blockers, benzodiazepines, certain antiretrovirals (e.g. indinavir, ritonavir, saquinavir), corticosteroids (dexamethasone, prednisolone), warfarin, carbamazepine, digoxin: increased blood concentration of these drugs.
- Efficacy of itraconazole may be reduced when combined with: rifampicin, rifabutin, isoniazid, efavirenz, phenytoin, phenobarbital.
- Do not administer simultaneously with aluminium or magnesium hydroxide: administer 2 hours apart.
- *Pregnancy and breast-feeding: avoid; for histoplasmosis, amphotericin B alone for 4 to 6 weeks is an alternative in pregnant women. Do not administer in the event of dermatophytosis of the scalp (apply a topical treatment until it is possible to use itraconazole).*

Remarks
- Do not open the capsules; take with meals.
- *Storage: below 25°C*

IVERMECTIN

Prescription under medical supervision

Therapeutic action
– Anthelminthic, scabicide

Indications
– Onchocerciasis
– Scabies

Presentation
– 3 mg and 6 mg tablets

Dosage and duration
– *Onchocerciasis*
Child over 15 kg and adult: 150 µg/kg as a single dose. A 2nd dose should be administered after 3 months if clinical signs persist. Repeat the treatment every 6 or 12 months to maintain the parasite load below the threshold at which clinical signs appear.

Height Weight	0 to < 90 cm < 15 kg	90 to < 120 cm 15 to < 25 kg	120 to < 140 cm 25 to < 45 kg	140 to < 160 cm 45 to < 65 kg	≥ 160 cm ≥ 65 kg
3 mg tablet	Do not administer	1 tab	2 tab	3 tab	4 tab
6 mg tablet		½ tab	1 tab	1½ tab	2 tab

– *Ordinary scabies*
Child over 15 kg and adult: 200 µg/kg as a single dose. A single dose may be sufficient; a 2nd dose one week later reduces the risk of treatment failure.

– *Crusted scabies*
Child over 15 kg and adult: 2 doses of 200 µg/kg one week apart, in combination with a topical keratolytic and topical scabicide; additional doses may be necessary.

Contra-indications, adverse effects, precautions
– May cause:
  • increased itching;
  • moderate reactions in patients with onchocerciasis: ocular irritation, headache, arthralgia, myalgia, lymphadenopathy, fever, oedema;
  • severe reactions in patients co-infected with *Loa loa*: marked functional impairment if *Loa loa* microfilaraemia > 8,000 mf/ml; encephalopathy if *Loa loa* microfilaraemia > 30,000 mf/ml.
– Administer with caution in regions where loiasis is endemic:
  • *For symptomatic onchocerciasis:*
  Evaluate the severity of Loa loa microfilaraemia and manage accordingly: either treat as an out-patient under supervision, or hospitalise, or choose an alternative treatment (doxycycline).
  If it is not possible to perform a thick film examination: ivermectin may be administered if the patient has no history of loiasis (migration of an adult worm under the conjunctiva or transient « Calabar » swellings), nor history of severe adverse reactions following a previous treatment with ivermectin. In other cases, it is wiser either to treat under supervision, or to choose an alternative treatment (doxycycline), or decide not to treat, according to the severity of the onchocerciasis and the previous history.
  • *For ordinary scabies*: review the patient's history and if in doubt, topical scabicidal treatment is preferred.
– *Pregnancy: avoid (safety is not established)*
– *Breast-feeding: no contra-indication*

Remarks
– Take tablets on an empty stomach.
– Ivermectin is also used for the treatment of strongyloidiasis (200 µg/kg as a single dose) and cutaneous larva migrans (200 µg/kg daily for 1 to 2 days).
– *Storage: below 25°C* –

LABETALOL

Prescription under medical supervision

Therapeutic action
- Non cardioselective beta-blocker

Indications
- Hypertension in pregnancy

Presentation
- 100 mg and 200 mg tablets

Dosage
- 200 mg/day in 2 divided doses. Increase if necessary in 100 to 200 mg increments until an effective dose is reached, usually 400 to 800 mg/day (max. 2400 mg/day). If higher doses are required, give in 3 divided doses.

Duration
- According to clinical response. Do not stop treatment abruptly, decrease doses gradually.

Contra-indications, adverse effects, precautions
- Do not administer to patients with asthma, chronic obstructive bronchopneumonia, heart failure, severe hypotension, bradycardia < 50/minute, atrio-ventricular heart blocks, Raynaud's syndrome, hepatic impairment.
- May cause: bradycardia, hypotension, heart failure, bronchospasm, hypoglycaemia, gastrointestinal disturbances, dizziness, headache, weakness, urinary retention.
- Administer with caution to patients with diabetes (risk of hypoglycaemia).
- Reduce dosage in patients with renal impairment.
- In the event of anaphylactic shock, risk of resistance to epinephrine.
- Avoid or monitor combination with: mefloquine, digoxin, amiodarone, diltiazem, verapamil (risk of bradycardia); tricyclic antidepressants, neuroleptics, other anti-hypertensive drugs (risk of hypotension).
- Do not administer simultaneously with antacids (aluminium or magnesium hydroxide, etc.). Administer 2 hours apart.
- Monitor the newborn: risk of hypoglycaemia, bradycardia, respiratory distress occurring most often during the first 24 hours and until 72 hours after the birth.
- *Breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C* –  – 

LACTULOSE

Therapeutic action
- Osmotic laxative

Indications
- Prevention of constipation in patients taking opioid analgesics (e.g. codeine, morphine)

Presentation
- 10 g/15 ml oral solution

Dosage and duration
- Child under 1 year: 5 ml/day (1 tsp/day)
- Child from 1 to 6 years: 5 to 10 ml/day (1 to 2 tsp/day)
- Child from 7 to 14 years: 10 to 15 ml/day (2 tsp/day or 1 ssp/day)
- Child over 14 years and adult: 15 to 45 ml/day (1 to 3 ssp/day)

Start lactulose when analgesic treatment continues more than 48 hours.
Lactulose must be taken daily, until the end of the opioid treatment. Regular follow up (frequency/consistency of stools) is essential in order to adjust dosage correctly.

Contra-indications, adverse effects, precautions
- Do not administer to patients with Crohn's disease, ulcerative colitis, intestinal obstruction, undiagnosed abdominal pain.
- May cause: abdominal discomfort, flatulence and diarrhoea.
- In the event of diarrhoea, exclude a faecal impaction and intestinal obstruction; reduce the dose.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- It may take up to 48 hours, or even longer, before the treatment is effective. Lactulose is not indicated in acute constipation where a rapid result is needed.
- If necessary, lactulose may be given in combination with a stimulant laxative (e.g. bisacodyl, senna).
- The oral solution may be taken undiluted, or diluted in water.
- The treatment should be accompanied by dietary measures (fluids and fibre).
- *Storage: below 25°C. Do not store in a refrigerator (cristallisation).*

LAMIVUDINE = 3TC

Prescription under medical supervision

Therapeutic action
– Antiretroviral, HIV-1 and HIV-2 nucleoside reverse transcriptase inhibitor

Indications
– HIV-1 or HIV-2 infection, in combination with other antiretroviral drugs

Presentation
– 150 mg and 300 mg tablets
– 50 mg/5 ml oral solution

Dosage
– Child under 1 month: 4 mg/kg/day in 2 divided doses
– Child from 1 month to 12 years: 8 mg/kg/day in 2 divided doses
– Adult: 300 mg once daily or in 2 divided doses

Weight	10 mg/ml oral solution	150 mg tablet	300 mg tablet
5 to 9 kg	2.5 ml x 2	–	–
10 to 14 kg	5 ml x 2	–	–
15 to 19 kg	7 ml x 2	½ tab x 2	–
20 to 24 kg	9 ml x 2	½ tab x 2	–
25 to 29 kg	11 ml x 2	2 tab	1 tab
≥ 30 kg	–	2 tab	1 tab

Duration
– The duration of treatment depends on the efficacy and tolerance of lamivudine.

Contra-indications, adverse effects, precautions
– Administer with caution to patients with history of hepatic disorders.
– May cause: gastrointestinal disturbances (diarrhoea, nausea, vomiting, etc.) and possibly: haematological disorders, especially when combined with zidovudine (neutropenia, anaemia, thrombocytopenia), myopathy, hepatic or pancreatic disorders.
– Reduce dosage in patients with renal impairment.
– *Pregnancy: no contra-indication*

Remarks
– For prophylactic treatment to reduce mother-to-child HIV transmission, check national recommendations.
– Many fixed-dose combinations containing lamivudine are available.
– *Storage: below 25°C*
Once opened, oral solution keeps for 30 days maximum.

LEVODOPA/CARBIDOPA

Prescription under medical supervision

Therapeutic action
- Antiparkinson drug

Indications
- Parkinson's disease and extrapyramidal disorders except those induced by neuroleptics

Presentation
- 100 mg levodopa + 10 mg carbidopa tablet
- 250 mg levodopa + 25 mg carbidopa tablet

Dosage
- Adult:
  - Initial dose of levodopa: 50 to 125 mg once or twice daily immediately after meals.
    Increase in increments of 50 to 125 mg every day or on alternate days, to individual optimal dose.
  - Maintenance dose: 750 to 1500 mg/day in 3 to 4 divided doses, immediately after meals.
- Reduce dosage in elderly patients.

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer if severe psychosis, mental confusion, closed-angle glaucoma, recent myocardial infarction, malignant melanoma.
- May cause:
  - early in treatment, when dose is not adjusted : anorexia, vomiting, orthostatic hypotension, cardiac arrhythmia, agitation, insomnia or drowsiness, depression;
  - frequent delayed adverse effects, signs of excessive dosage, mainly:
    - dyskinesia, tremor;
    - psychiatric disorders more frequent in elderly patients: confusion, hallucinations, delirium, depression with or without suicidal tendencies;
  - later in treatment : fluctuation of the effect during the day (daily dosage may be divided into smaller doses and taken more frequently); or reduction of the effect (progression of the disease).
- Administer with caution in psychiatric disorders, cardiac disease, gastro-duodenal ulcer.
- Do not administer simultaneously with MAOIs, antidepressants, neuroleptics, reserpine.
- *Pregnancy*: ***CONTRA-INDICATED***
- *Breast-feeding*: ***CONTRA-INDICATED***

Remarks
- Tablet must be swallowed whole. Do not chew or dissolve.
- *Storage: below 25°C* –

LEVONORGESTREL

Prescription under medical supervision

Therapeutic action
- Hormonal contraceptive, progestogen

Indications
- Oral contraception

Presentation
- 30 micrograms (0.03 mg) tablet, 28-day pack or 35-day pack

Dosage
- 1 tablet daily at the same time, continuously, including during menstruation
  Start the first day of menstruation or immediately after abortion or as of the 21st day after childbirth if the woman does not breastfeed.
  It is also possible to start at any moment of the cycle (if the woman is not pregnant). In this case, contraception will be effective as of the 3rd tablet. It is essential to use condoms during the first 2 days.

Duration
- If there are no adverse effects, as long as contraception is desired.

Contra-indications, adverse effects, precautions
- Do not administer to women with breast cancer, severe or recent liver disease, unexplained vaginal bleeding, current thromboembolic disorders.
- May cause: amenorrhoea, menstrual disturbances, nausea, weight gain, breast tenderness, mood changes, acne, headache.
- Hepatic enzyme inducers (rifampicin, rifabutin, nevirapine, ritonavir, phenobarbital, phenytoin, carbamazepine, griseofulvin, etc.) reduce the contraceptive efficacy. Use copper intrauterine device or condoms or injectable medroxyprogesterone.
- *Pregnancy*: ***CONTRA-INDICATED***
- *Breast-feeding: it is recommended to wait 6 weeks after childbirth before starting levonorgestrel in breastfeeding women. However, if it is the only contraceptive method available or acceptable, it can be started 3 weeks after childbirth.*

Remarks
- Levonorgestrel is a possible alternative when estroprogestogens are contra-indicated or poorly tolerated. However, it has a lesser contraceptive effect than estroprogestogens and requires taking tablets at a precise time (no more than 3 hours late).
- If a woman misses a tablet, she should take it as soon as possible and continue treatment as normal. If she misses by over 3 hours, contraceptive protection will be lessened. It is therefore recommended to use an additional contraceptive method: condoms for 7 days and, if she has had sexual intercourse within 5 days before forgetting the tablet, emergency contraception.
- *Storage: below 25°C*

LEVONORGESTREL for emergency contraception

Therapeutic action
- Hormonal contraceptive, progestogen

Indications
- Prevention of pregnancy in the event of a lapse or absence of contraception

Presentation
- 1.5 mg tablet

Dosage and duration
- One 1.5 mg tablet as a single dose, whatever the day of the cycle, as soon as possible after unprotected intercourse and preferably within the first 72 hours as effectiveness decreases with time. It is however recommended to administer the treatment up to 120 hours (5 days) after unprotected intercourse.

Contra-indications, adverse effects, precautions
- No contra-indication.
- May cause: menstrual irregularities, vaginal bleeding, nausea, headache, dizziness.
- Re-administer treatment if vomiting occurs within 3 hours of taking treatment.
- Double the dose (3 mg as a single dose) in women taking prophylactic antiretroviral treatment or enzyme-inducing drugs (rifampicin, rifabutin, griseofulvin, phenytoin, phenobarbital, carbamazepine, certain antiretrovirals): contraceptive effectiveness may be reduced.
- *Pregnancy: in the event of treatment failure (i.e. pregnancy develops) or if used during an undiagnosed pregnancy, there is no known harm for the foetus.*
- *Breast-feeding: no contra-indication*

Remarks
- Emergency contraception is intended to prevent pregnancy; it cannot terminate an ongoing pregnancy.
- There is a risk of treatment failure. Carry out a pregnancy test if there is no menstruation:
  - within 5 to 7 days after the expected date, if the date is known;
  - or within 21 days following treatment.
- *Storage: below 25°C* – 

LOPERAMIDE

Prescription under medical supervision

Therapeutic action
– Opioid antidiarrhoeal

Indications
– Symptomatic treatment of persistent diarrhoea in HIV patients, in combination with rehydration

Presentation
– 2 mg capsule or tablet
Also comes in 1 mg/5 ml oral solution.

Dosage
– Child from 2 to 5 years: 3 mg/day in 3 divided doses
– Child from 6 to 8 years: 4 mg/day in 2 divided doses
– Child over 8 years: 6 mg/day in 3 divided doses

Age Weight	0-2 years < 13 kg	2-5 years 13 - 20 kg	6-8 years 20 - 30 kg	> 8 years > 30 kg
Oral solution	Do not administer	1 tsp x 3	2 tsp x 2	2 tsp x 3
Capsule		–	1 cap. x 2	1 cap x 3

– Adult: 4 mg (2 capsules), then 2 mg (1 capsule) after each loose stool, without exceeding 16 mg/day (8 capsules/day)

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– Do not exceed indicated doses.
– Do not administer to children under 2 years.
– Do not administer to patients with bloody diarrhoea, acute inflammatory bowel disease, diarrhoea due to antibiotics.
– May cause: constipation, allergic skin reactions, drowsiness, dizziness.
– In the event of overdosage, treat with naloxone.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Rehydration is essential and must be adapted to the severity of diarrhoea.
– Loperamide is not included in the WHO list of essential medicines.
– *Storage: below 25°C* –

LOPINAVIR/RITONAVIR = LPV/r

Prescription under medical supervision

Therapeutic action
– Antiretrovirals, HIV-1 and HIV-2 protease inhibitors

Indications
– HIV-1 or HIV-2 infection, in combination with other antiretroviral drugs

Presentation
– 40 mg lopinavir/10 mg ritonavir tablet and capsule of oral pellets
– 100 mg lopinavir/25 mg ritonavir film coated tablet
– 200 mg lopinavir/50 mg ritonavir film coated tablet
– 80 mg lopinavir/20 mg ritonavir per ml oral solution, containing 42% alcohol (v/v), with a graduated syringe for oral administration

Dosage
– Child from 14 days to 6 months: 32/8 mg/kg/day in 2 divided doses
– Child over 6 months:
  • 7 to 15 kg: 24/6 mg/kg/day in 2 divided doses
  • 15 to 40 kg: 20/5 mg/kg/day in 2 divided doses
– Adult: 800/200 mg/day in 2 divided doses

Weight	80/20 mg/ml oral solution	100/25 mg tablet	200/50 mg tablet
< 4 kg	1 ml x 2	–	–
4 to < 10 kg	1.5 ml x 2	–	–
10 to < 14 kg	2 ml x 2	–	–
14 to < 20 kg	2.5 ml x 2	–	–
20 to < 26 kg	3 ml x 2	2 tab x 2	–
26 to < 35 kg	–	3 tab x 2	–
≥ 35 kg	–	4 tab x 2	2 tab x 2

Duration
– Depending on the efficacy and tolerance of LPV/r.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe hepatic impairment.
– Do not administer oral solution to patients with renal or hepatic impairment.
– May cause:
  • gastrointestinal disturbances (mainly diarrhoea), skin rash, pruritus;
  • hepatic disorders (raised transaminases), pancreatic disorders, metabolic disorders (lipodystrophy, hyperlipidaemia, diabetes mellitus with glucose intolerance and/or insulin resistance).
– LPV/r reduces the efficacy of oral contraceptives: use a non-hormonal contraception or injectable medroxyprogesterone or an oral contraceptive containing 50 µg ethinylestradiol per tablet.
– Avoid combination with rifampicin. Use rifabutin if possible.
– Administer with caution to patients with haemophilia (risk of haemorrhage) or renal or hepatic impairment.
– *Pregnancy: oral solution is* ***CONTRA-INDICATED****; no contra-indication for tablets and capsules.*

Remarks
– Tablets may be taken with meals or on an empty stomach. The oral solution must be taken with meals.
– The tablets must not be chewed or crushed.
– Capsules must be opened then oral pellets must be poured into a small amount of breast milk or soft foods and administered to the child immediately. Pellets must not be stirred, crushed, dissolved/dispersed in food, or chewed.
– *Storage: tablets: below 25°C; oral solution: between 2°C and 8°C.*
  If refrigeration is not available, oral solution kept below 25°C may be stored for 6 weeks maximum.

MEBENDAZOLE

Prescription under medical supervision

Therapeutic action
- Anthelminthic

Indications
- Ascariasis (Ascaris lumbricoides), trichuriasis (*Trichuris trichiura*), hookworm infections (*Ancylostoma duodenale*, *Necator americanus*), enterobiasis (*Enterobius vermicularis*), trichinellosis (*Trichinella spp*)

Presentation
- 100 mg and 500 mg tablets

Dosage and duration
- *Ascariasis, trichuriasis, hookworm infections*
  Child over 6 months and adult: 100 mg twice daily for 3 days
  Child over 6 months but under 10 kg: 50 mg twice daily for 3 days
- *Enterobiasis*
  Child over 6 months and adult: 100 mg as a single dose
  Child over 6 months but under 10 kg: 50 mg as a single dose
  A second dose may be given after 2 to 4 weeks.
- *Trichinellosis*
  Child over 2 years: 5 mg/kg/day in 2 divided doses for 10 to 15 days
  Adult: 400 mg/day in 2 divided doses for 10 to 15 days

Contra-indications, adverse effects, precautions
- Do not administer to children under 6 months.
- May cause: gastrointestinal disturbances, headache, dizziness.
- *Pregnancy: avoid during the first trimester*
- *Breast-feeding: no contra-indication*

Remarks
- Albendazole is easier to use and is preferred in mixed infections as it has a broader spectrum of activity.
- Tablets are to be chewed or crushed: follow manufacturer's instructions.
- Take tablets between meals.
- *Storage: below 25°C* –  – 

MEFLOQUINE = MQ

Prescription under medical supervision

For the treatment of malaria, use coformulated artesunate/mefloquine tablets.

Therapeutic action
- Antimalarial

Indications
- Treatment of uncomplicated falciparum malaria, in combination with artesunate
- Completion treatment following parenteral therapy for severe falciparum malaria, in combination with artesunate
- Prophylaxis of falciparum malaria for non-immune individuals

Presentation
- 250 mg scored tablet

Dosage and duration
- *Treatment of falciparum malaria (in combination with artesunate administered on D1, D2, D3)*
  Child 3 months and over (≥ 5 kg) and adult: 25 mg base/kg as a single dose
- *Prophylaxis of falciparum malaria*
  Child 3 months and over (≥ 5 kg): 5 mg base/kg once a week
  Adult: 250 mg base once a week
  Travellers should start prophylaxis 2 to 3 weeks before departure and continue throughout the stay and for 4 weeks after return.

Contra-indications, adverse effects, precautions
- Do not administer to patients with neuropsychiatric disorders (or history of), seizures, hypersensitivity to mefloquine or quinine; mefloquine treatment in the previous 4 weeks.
- For completion treatment following parenteral therapy for severe malaria: do not administer if the patient developed neurological signs during the acute phase.
- For prophylaxis: do not administer to patients with severe hepatic impairment.
- May cause:
  - gastrointestinal disturbances, dizziness, headache, sleeping disorders (effects usually transitory when used for prophylaxis);
  - more rarely: neuropsychiatric reactions, heart rhythm disorders, hypo or hypertension, skin allergies.
- If the patient vomits less than 30 minutes after administration, repeat the full dose. If the patient vomits within 30 to 60 minutes, re-administer a half the dose.
- Do not combine with anti-epileptics (risk of seizures), coartemether, chloroquine, halofantrine (risk of seizures, cardiac toxicity).
- Do not administer simultaneously with quinine (risk of seizures, cardiac toxicity). If mefloquine is used after quinine IV, administer mefloquine 12 hours after the last dose of quinine.
- Administer with caution to patients taking antiarrhythmics, beta-blockers, calcium-channel blockers or digitalis (risk of heart rhythm disorders).
- *Pregnancy: no contra-indication during the 2nd and 3rd trimester. Safety in the first trimester has not been definitely established. However, given the risks associated with malaria, the combination artesunate-mefloquine may be used during the first trimester if it is the only effective treatment available.*
- *Breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C* –

METAMIZOLE = DIPYRONE = NORAMIDOPYRINE

Prescription under medical supervision

The use of this drug is not recommended:
- **it is potentially harmful;**
- **it has been taken off the market in many countries;**
- **it must never be prescribed as a first choice treatment.**

Therapeutic action
- Analgesic
- Antipyretic

Indications
- Severe pain
- High fever

Presentation
- 500 mg tablet

Dosage
- Child over 5 years: 250 mg to 1 g/day in 3 divided doses
- Adult: 500 mg to 3 g/day in 3 divided doses

Duration
- According to clinical response, 1 to 3 days

Contra-indications, adverse effects, precautions
- Do not administer in case of gastric ulcer.
- Severe and fatal cases of agranulocytosis have been reported. Use only when usual antipyretics and analgesics (acetylsalicylic acid and paracetamol) have been ineffective.
- *Pregnancy: avoid*
- *Breast-feeding: avoid*

Remarks
- Metamizole is not included in the WHO list of essential medicines.
- *Storage: below 25°C*

METHYLDOPA

Prescription under medical supervision

Therapeutic action
- Centrally acting antihypertensive

Indications
- Hypertension in pregnancy

Presentation
- 250 mg tablet

Dosage
- Initially 500 to 750 mg/day in 2 to 3 divided doses for 2 days, then increase gradually if necessary by 250 mg every 2 to 3 days, until the optimal dose is reached, usually 1.5 g/day. Do not exceed 3 g/day.

Duration
- According to clinical response. Do not stop treatment abruptly; reduce doses gradually.

Contra-indications, adverse effects, precautions
- Do not administer to patients with active liver disease, history of drug-related liver disease, severe depression.
- Administer with caution to patients with hepatic impairment, and reduce doses in patients with renal impairment.
- May cause:
  - orthostatic hypotension, drowsiness, headache, gastrointestinal disturbances, dry mouth;
  - rarely: haematological, hepatic, psychical disorders; allergic reactions.
- Stop treatment if haemolytic anaemia or jaundice appear during treatment.
- In the event of unexplained fever during treatment, check blood count and transaminases for possible hepatitis due to methyldopa.
- Monitor combination with lithium (risk of lithium overdose), antidepressants (enhanced hypotensive effect), CNS depressants (increased sedation).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- *Storage: below 25°C*

METOCLOPRAMIDE

Prescription under medical supervision

Therapeutic action
- Antiemetic (dopamine antagonist)

Indications
- Symptomatic treatment of nausea and vomiting in adults

Presentation
- 10 mg tablet

Dosage
- Adult under 60 kg: 15 mg/day in 3 divided doses
- Adult over 60 kg: 30 mg/day in 3 divided doses

The interval between each dose should be at least 6 hours (even in the event of vomiting).

Duration
- A few days

Contra-indications, adverse effects, precautions
- Do not administer to children < 18 years and to patients with gastrointestinal haemorrhage, obstruction or perforation.
- Reduce the dose by half in patients with severe renal impairment.
- Administer with caution and monitor use in patients > 60 years and patients with epilepsy or Parkinson's disease.
- May cause: drowsiness (caution when driving/operating machinery), dizziness, confusion, extrapyramidal symptoms, seizures (especially in epileptics), allergic reactions; neuroleptic malignant syndrome (unexplained hyperthermia with neuromuscular disorders), exceptional but requiring immediate treatment discontinuation.
- Do not combine with levodopa (antagonism).
- Avoid combination with CNS depressants (opioid analgesics, antipsychotics, sedatives, antidepressants, antihistamines, etc.).
- Avoid alcohol during treatment.
- *Pregnancy: no contraindication*
- *Breast-feeding: no contraindication*

Remarks
- *Storage: below 25°C* –  – 

METRONIDAZOLE

Prescription under medical supervision

Therapeutic action

– Antiprotozoal, antibacterial (group of nitroimidazoles)

Indications

– Amoebiasis, giardiasis, trichomoniasis
– Bacterial vaginitis, infections due to anaerobic bacteria (e.g. *Clostridium sp*, *Bacteroides sp*, etc.)

Presentation

– 250 mg and 500 mg tablets
– 200 mg/5 ml oral suspension

Dosage and duration

– *Amoebiasis*
  Child: 45 mg/kg/day in 3 divided doses
  Adult: 500 to 800 mg 3 times daily
  The treatment lasts 5 days in intestinal amoebiasis and 5 to 10 days in hepatic amoebiasis.
– *Giardiasis*
  Child: 30 mg/kg once daily for 3 days
  Adult: 2 g once daily for 3 days
– *Trichomoniasis and bacterial vaginitis*
  Adult: 2 g as a single dose
  In the event of trichomoniasis, also treat sexual partner.
– *Infections due to anaerobic bacteria*
  Child: 30 mg/kg/day in 3 divided doses
  Adult: 500 mg 3 times daily
  According to indication, metronidazole may be used in combination with other antibacterials; treatment duration depends on indication.

Contra-indications, adverse effects, precautions

– Do not administer to patients with hypersensitivity to metronidazole or another nitroimidazole (tinidazole, secnidazole, etc.).
– May cause: gastrointestinal disturbances; rarely: allergic reactions, brownish urine, headache, dizziness. Risk of antabuse reaction when combined with alcohol.
– Administer with caution in patients taking oral anticoagulants (risk of haemorrhage), lithium, phenytoin, ergometrine (increased plasma concentrations of these drugs).
– Reduce total daily dose to ⅓ and give once daily to patients with severe hepatic impairment.
– *Pregnancy: no contra-indication; divide into smaller doses, avoid prolonged use.*
– *Breast-feeding: significantly excreted in milk (risk of gastrointestinal disturbances in breastfed infants); divide into smaller doses, avoid prolonged use.*

Remarks

– *Storage: below 25°C –* 
  For the oral suspension: follow manufacturer's instructions.

MICONAZOLE oral gel

Prescription under medical supervision

Therapeutic action
– Antifungal

Indications
– Benign oropharyngeal candidiasis

Presentation
– 2% oral gel (24 mg/ml) together with, depending on the manufacturer:
  • a 2.5 ml measuring spoon with 1.25 ml and 2.5 ml graduation
  or
  • a 5 ml measuring spoon with 2.5 ml and 5 ml graduation

Dosage
– Child from 6 months to 2 years: 1.25 ml 4 times/day
– Child over 2 years and adult: 2.5 ml 4 times/day

The oral gel should be kept in the mouth 2-3 minutes and then swallowed, or in young children, applied to the tongue and inside of each cheek.

Duration
– 7 days; 14 days of treatment may be necessary.

Contra-indications, adverse effects, precautions
– Do not administer:
  • to children under 6 months or patients with swallowing difficulties (risk of suffocation due to oral gel form);
  • in patients with hepatic impairment.
– Do not combine with antivitamin K agents (risk of haemorrhage), glibenclamide (increased hypoglycaemic effect), phenytoin (increased plasma concentration of phenytoin).
– May cause: nausea, taste disturbances.
– *Pregnancy: no contraindication*
– *Breast-feeding: no contraindication*

Remarks
– Use the measuring spoon provided and check the graduation.
– Administer between meals (preferably after meals).
– In patients with dentures, clean dentures with oral gel when removed.
– In the event of moderate or severe oropharyngeal candidiasis, use oral fluconazole.
– Miconazole oral gel is not included in the WHO list of essential medicines.
– *Storage: below 25°C* – 

MIFEPRISTONE = RU486

Prescription under medical supervision

Therapeutic action
- Antiprogestogen

Indications
- Termination of intra-uterine pregnancy, in combination with misoprostol
- Induction of labour in the event of intrauterine foetal death, in combination with misoprostol

Presentation
- 200 mg tablet

Dosage and duration
- *Termination of pregnancy up to 12/14 weeks after the last menstrual period*
  200 mg as a single dose, followed by a dose of misoprostol 36 to 48 hours later
- *Induction of labour in the event of intrauterine foetal death*
  600 mg once daily for 2 days, followed by a dose of misoprostol the 3rd day

Contra-indications, adverse effects, precautions
- Do not administer to patients with chronic adrenal failure or severe uncontrolled asthma.
- May cause: gastrointestinal disturbances, vaginal bleeding, uterine contractions, headache.
- *Breast-feeding: no contra-indication for a single dose; to be avoided if multiple doses (induction of labour in intrauterine foetal death)*

Remarks
- For labour induction in the event of intrauterine foetal death, mifepristone may sometimes be sufficient to initiate labour but it is often necessary to administer misoprostol.
- Do not use mifepristone in ectopic or molar pregnancy.
- *Storage: below 25°C* –  – 

MISOPROSTOL

Prescription under medical supervision

Therapeutic action

- Cervical ripening agent, oxytocic drug (prostaglandin analogue)

Indications

- Cervical dilation before aspiration or curettage
- First trimester incomplete abortion
- Termination of intra-uterine pregnancy, preferably in combination with mifepristone
- Induction of labour when the cervix is not favourable, preferably in combination with mifepristone in the case of intrauterine foetal death
- Treatment of post-partum haemorrhage due to uterine atony, when injectable oxytocics are not available or ineffective

Presentation

- 200 micrograms scored tablet

Dosage and duration

- *Cervical dilation before aspiration or curettage*
  400 micrograms as a single dose sublingually or vaginally, 3 hours before the procedure
- *First trimester incomplete abortion*
  400 micrograms as a single dose sublingually or 600 micrograms as a single dose orally
- *Termination of pregnancy up to 12-14 weeks after the last menstrual period*
  800 micrograms sublingually or vaginally then, if necessary, 400 micrograms every 3 hours, until expulsion starts (max. 5 doses in total or 2400 micrograms)
- *Induction of labour*
  - intrauterine foetal death: 200 micrograms (2^{nd} trimester) or 100 micrograms (3^{rd} trimester) or 50 micrograms (9^{th} month) vaginally, every 6 hours until labour starts (max. 3 doses per 24 hours, to be repeated if necessary the following day)
  - viable pregnancy: 50 micrograms vaginally every 6 hours or 25 micrograms orally every 2 hours until labour starts (max. 150 micrograms)
- *Treatment of post-partum haemorrhage*
  800 micrograms as a single dose sublingually

Contra-indications, adverse effects, precautions

- For induction of labour:
  - Do not administer in the event of previous caesarean section and grand multiparity if the foetus is viable (risk of uterine rupture). If the foetus is dead or non-viable or viable but a caesarean section cannot be performed, reduce each dose by half and do not exceed 3 doses in total.
  - Do not administer simultaneously with oxytocin. At least 6 hours must have elapsed since the last administration of misoprostol before oxytocin can be given.
  - Regular monitoring of the intensity and frequency of contractions is mandatory after administration of misoprostol.
  - If the foetus is viable, continuous foetal heart monitoring is mandatory for 30 minutes after administration of each dose of misoprostol and once contractions are experienced or detected.
- May cause: dose-dependent diarrhoea, vomiting, uterine hypertony, headache, fever, chills, foetal heart rhythm disorders, foetal distress.
- *Breast-feeding: no contra-indication*

Remarks

- To prepare an oral dose of 25 micrograms, dilute one 200 micrograms tablet into 200 ml of water. Take 25 ml of the solution (1 microgram/ml). Shake the bottle before use.
- For termination of pregnancy and induction of labour after intrauterine foetal death, it is preferable to administer mifepristone first to improve the efficacy of misoprostol and reduce the number of dose required.
- Do not use misoprostol in ectopic or molar pregnancy.
- *Storage: below 25° C*

MORPHINE
immediate-release (MIR)

Prescription under medical supervision

Therapeutic action
– Centrally acting opioid analgesic

Indications
– Severe pain

Presentation
– 10 mg immediate-release tablet
– 10 mg/5 ml oral solution, for pediatric use

Dosage
There is no standard dose. The optimal dose is that which provides efficient pain relief to the patient. It is adjusted in relation to the regular assessment of pain intensity and the incidence of adverse effects.
– Day 1:
  • Start with a scheduled treatment (scheduled doses):
    Child over 6 months: 1 mg/kg/day in 6 divided doses at 4-hour intervals
    Adult: 60 mg/day in 6 divided doses at 4-hour intervals
  • Adjust the treatment if pain persists by administering "rescue" doses between the scheduled doses. The rescue doses administered are the same as the scheduled doses.
– Then, adjust scheduled treatment every 24 hours according to the total dose given the day before (i.e. total scheduled doses + total rescue doses).
  For example, Day 1, for a dose of 60 mg/day, i.e. 10 mg every 4 hours:

Hours	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
Scheduled doses	10 mg				10 mg				10 mg				10 mg				10 mg				10 mg			
Example simple verbal scale	severe pain		moderate pain		mild pain		moderate pain		mild pain		mild pain		mild pain		moderate pain		mild pain				mild pain			
Example rescue doses			10 mg				10 mg								10 mg									

  In this example, the scheduled treatment on Day 2 is 90 mg/day, i.e. 60 mg (total scheduled doses on Day 1) + 30 mg (total rescue doses on Day 1) in 6 divided doses, i.e. 15 mg every 4 hours.
– Scheduled doses must be administered at regular time intervals and not on demand, even at night, unless the patient is abnormally drowsy (in this event, delay the administration).
– Reduce the dose by half in elderly patients and patients with renal or hepatic impairment.

Duration: once the pain is controlled, change to sustained-release morphine.

Contra-indications, adverse effects, precautions
– See sustained-release oral morphine (MSR).

Remarks
– Administer an appropriate laxative (e.g. lactulose) if analgesic treatment continues more than 48 hours.
– The morphine dose in tablets is not suitable for young children. Use oral solution instead. If this is not available, use injectable morphine by the oral route: dilute an ampoule of 10 mg/ml (1 ml) with 9 ml of water to obtain a solution containing 1 mg/ml.
– Morphine is on the list of narcotics: follow national regulations.
– *Storage: below 25°C –*

MORPHINE
sustained-release (MSR)

Prescription under medical supervision

Therapeutic action
- Centrally acting opioid analgesic

Indications
- Severe and persistent pain, especially cancer pain

Presentation
- 10 mg, 30 mg and 60 mg sustained-release capsules or tablets

Dosage
- Usually, the effective daily dose is determined during the initial treatment with immediate-release morphine (MIR). When changing from MIR to MSR, the daily dose remains the same. For example, if the effective dose of MIR is 20 mg 6 times/day (120 mg/day), the dose of MSR is 60 mg 2 times/day (120 mg/day).
- If treatment is initiated directly with MSR:
  - Child over 6 months: initially 1 mg/kg/day in 2 divided doses at 12-hour intervals
  - Adult: initially 60 mg/day in 2 divided doses at 12-hour intervals

  Adjust the dose if necessary, increasing the dose by 50% per day until pain relief is obtained.
- Patients stabilized on MSR may require rescue doses of MIR in the event of episodic (breakthrough) pain. A rescue dose corresponds to 10% of the daily MSR dose. If a patient regularly requires more than 3 rescue doses per day, increase the daily MSR dose by the sum of rescue doses.

Duration
- According to clinical response. Do not stop long-term treatment abruptly. Decrease doses progressively to avoid withdrawal symptoms.

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe respiratory impairment or decompensated hepatic impairment.
- Do not initiate treatment with the sustained-release formulation in elderly patients or those with renal or hepatic impairment. Begin treatment with the immediate release formulation (MIR).
- May cause:
  - dose-related sedation and respiratory depression, nausea, vomiting, constipation, urinary retention, confusion, raised intracranial pressure, pruritus;
  - in the event of overdose: excessive sedation, respiratory depression, coma.
- Management of respiratory depression includes assisted ventilation and/or administration of naloxone. Monitor patient closely for several hours.
- Administer with caution to patients with respiratory impairment, head injury, raised intracranial pressure, uncontrolled epilepsy or urethroprostatic disorders.
- Do not combine with opioid analgesics with mixed agonist-antagonist activity such as buprenorphine, nalbuphine, pentazocine (competitive action).
- Increased risk of sedation and respiratory depression, when combined with alcohol and drugs acting on the central nervous system: benzodiazepines (diazepam, etc.), neuroleptics (chlorpromazine, haloperidol, etc.), antihistamines (chlorphenamine, promethazine), phenobarbital, etc.
- *Pregnancy and breast-feeding: no contra-indication. The child may develop withdrawal symptoms, respiratory depression and drowsiness when the mother receives morphine at the end of the 3rd trimester and during breast-feeding. In these situations, administer with caution, for a short period, at the lowest effective dose, and monitor the child.*

Remarks
- Administer an appropriate laxative (e.g. lactulose) if analgesic treatment continues more than 48 hours.
- Do not crush or chew capsules. They can be opened and emptied into food.
- Morphine is on the list of narcotics: follow national regulations.
- *Storage: below 25°C* –  – 

MULTIVITAMINS – VITAMIN B COMPLEX

Therapeutic action
– Vitamin supplementation

Indications
– Few indications: this drug has no effect in case of real vitamin deficiency. Nevertheless, vitamin supplementation helps to prevent some deficiencies in people at risk (e.g. pregnant women).

Presentation
– Tablet. Composition varies in quality and quantity, with manufacturers.
Examples of composition per tablet:

	Multivitamins	B complex	Daily needs (adult)
Vitamin A	2500 IU	/	2500 IU
Vitamin B1	1 mg	1 mg	0.9 to 1.3 mg
Vitamin B2	0.5 mg	1 mg	1.5 to 1.8 mg
Vitamin B3 (= PP)	7.5 mg	15 mg	15 to 20 mg
Vitamin C	15 mg	/	10 mg
Vitamin D3	300 IU	/	100 to 200 UI

Dosage
– Child under 5 years: 1 tab/day
– Child over 5 years: 2 tab/day
– Adult: 3 tab/day

Duration
– Depending on situation

Contra-indications, adverse effects, precautions
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Specific vitamin deficiency states require appropriate doses of vitamins.
– Multivitamins are not included in the WHO list of essential medicines.
– Storage: keep in a cool place (8°C to 15°C) – 

NEVIRAPINE = NVP

Prescription under medical supervision

Therapeutic action
– Antiretroviral, HIV-1 non nucleoside reverse transcriptase inhibitor

Indications
– HIV-1 infection, in combination with other antiretroviral drugs

Presentation
– 50 mg dispersible tablet
– 200 mg tablet
– 50 mg/5 ml oral suspension

Dosage
– Child from 2 months to 8 years: 4 mg/kg once daily for 14 days, then 14 mg/kg/day in 2 divided doses from the 15th day
– Child over 8 years: 4 mg/kg once daily for 14 days, then 8 mg/kg/day in 2 divided doses from the 15th day, without exceeding 400 mg/day
– Adult: 200 mg once daily for 14 days, then 400 mg/day in 2 divided doses from the 15th day

Weight	10 mg/ml oral suspension		200 mg tablet	
	Initial	Maintenance	Initial	Maintenance
5 to < 10 kg	3 ml	6 ml x 2	Use oral suspension	–
10 to < 15 kg	5 ml	10 ml x 2		½ tab x 2
15 to < 20 kg	7 ml	14 ml x 2	½ tab	1 tab AM and ½ tab PM
20 to < 25 kg	10 ml	< 8 years: 16 ml x 2	½ tab	< 8 years: 1 tab AM and ½ tab PM
		> 8 years: 10 ml x 2		> 8 years: ½ tab x 2
25 to < 30 kg	12 ml	< 8 years: 20 ml x 2	½ tab	< 8 years: 1 tab x 2
		> 8 years: 12 ml x 2		> 8 years: ½ tab x 2
30 to < 40 kg	14 ml	14 ml x 2	1 tab	1 tab AM and ½ tab PM
40 to < 50 kg	–	–	1 tab	1 tab x 2
≥ 50 kg	–	–	1 tab	1 tab x 2

Duration: the duration of treatment depends on the efficacy and tolerance of nevirapine.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe hepatic impairment, history of severe intolerance to nevirapine that led to permanent discontinuation of treatment.
– May cause:
  • cutaneous reactions sometimes severe (Stevens-Johnson and Lyell syndromes), hepatic disorders possibly severe (fulminant hepatitis). In these cases, stop taking nevirapine immediately and permanently;
  • gastrointestinal disturbances, headache, myalgia.
– Nevirapine reduces the efficacy of oral contraceptives: use a non-hormonal contraception or injectable medroxyprogesterone or an oral contraceptive containing 50 µg ethinylestradiol per tablet.
– Avoid combination with rifampicin (decreases the efficacy of nevirapine). Use rifabutin if possible. If rifabutin is not available, use efavirenz rather than nevirapine.
– Monitor liver enzyme level (ALAT) during the first 2 months, then every 3 to 6 months. If the enzyme level reaches 5 times the normal level, stop nevirapine immediately.
– *Pregnancy: no contra-indication*

Remarks
– For prophylactic treatment to reduce mother-to-child transmission, check national recommendations.
– To improve tolerance, respect the initial 14-day phase of treatment. In the event of restarting treatment after having stopped for more than 7 days, recommence initial 14-day phase.
– Tablets are not scored. When half a tablet is required, use a cutter to cut the tablet into two equal parts.
– Also comes in fixed-dose combination tablets incorporating nevirapine-lamivudine-zidovudine.
– *Storage: below 25°C*
  Once opened, oral suspension keeps for 2 months maximum.

NICLOSAMIDE

Therapeutic action
- Anthelminthic (taenicide)

Indications
- Taeniasis: beef tapeworm (*Taenia saginata*), pork tapeworm (*Taenia solium*), dwarf tapeworm (*Hymenolepis nana*) and fish tapeworm (*Diphyllobothrium latum*)

Presentation
- 500 mg chewable tablet

Dosage and duration
- *T. saginata, T. solium and D. latum*
  Child under 2 years: 500 mg as a single dose
  Child from 2 to 6 years: 1 g as a single dose
  Child over 6 years and adult: 2 g as a single dose
- *H. nana*
  Child under 2 years: 500 mg on the first day, then 250 mg/day for 6 days
  Child from 2 to 6 years: 1 g on the first day, then 500 mg/day for 6 days
  Child over 6 years and adult: 2 g on the first day, then 1 g/day for 6 days

Contra-indications, adverse effects, precautions
- May cause: gastrointestinal disturbances.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Chew or crush the tablets before swallowing and washing down with water.
- In the event of vomiting, the single dose may be divided in 2 doses taken with an interval of one hour.
- As niclosamide is a taenicide, do not expect the patient to expel the worm, portions are voided in a partially digested form.
- Niclosamide is not active against the larval form of *T. solium* (cysticercosis).
- *Storage: below 25°C* – 

NICOTINAMIDE = VITAMIN PP = VITAMIN B3

Therapeutic action
– Vitamin

Indications
– Treatment of pellagra

Presentation
– 50 mg tablet
Also comes in 100 mg tablet.

Dosage and duration
– Child and adult: 300 to 500 mg/day in 2 divided doses, with a diet rich in protein, until the patient is fully cured

Contra-indications, adverse effects, precautions
– *Pregnancy and breast-feeding: avoid, except if clearly needed (safety is not established)*

Remarks
– Nicotinamide is also called niacinamide.
– Vitamin PP deficiency is common when diet is almost entirely based on sorghum, millet or maize.
– Vitamin PP deficiency often occurs in association with other vitamin B-complex deficiency (thiamine, pyridoxine), especially in alcoholic patients.
– Vitamin PP is usually one of the components of multivitamin preparations and B-complex (7.5 mg to 15 mg/tablet).
– Nicotinic acid has a similar action to nicotinamide, but is no longer used because of its adverse effects, especially its vasodilator action.
– *Storage: below 25°C* – 

NIFEDIPINE

Prescription under medical supervision

Therapeutic action
- Uterine relaxant
- Antihypertensive drug (calcium channel blocker)

Indications
- Threatened premature labour
- Hypertension

Presentation
- 10 mg short-acting (liquid-filled) capsule
- 10 mg prolonged-release tablet

Dosage
- *Threatened premature labour* (short-acting capsule)
  10 mg by oral route, to be repeated every 15 minutes if uterine contractions persist (maximum 4 doses or 40 mg), then 20 mg by oral route every 6 hours
- *Hypertension* (prolonged-release tablets)
  20 to 100 mg/day in 2 divided doses or 20 to 90 mg once daily depending on the preparation used

Duration
- *Threatened premature labour*: 48 hours
- *Hypertension*: lifetime treatment

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe cardiac disease (recent myocardial infarction, unstable angina).
- Do not administer if systolic blood pressure is below 90 mmHg.
- May cause:
  • headache, flushing, peripheral oedema (common adverse effects at the start of treatment);
  • dizziness, hypotension, tachycardia, nausea, gingival hyperplasia, rash.
- Stop nifedipine if ischaemic chest pain occurs or existing pain increases shortly after starting treatment.
- Do not combine with magnesium sulphate, salbutamol IV, and calcium channel blockers.
- Monitor combination with cimetidine (additive hypotension), phenytoin (risk of phenytoin toxicity), rifampicin (efficacy of nifedipine diminished), itraconazole (increased risk of oedema), beta-blockers (enhanced antihypertensive effects).
- *Pregnancy: **CONTRA-INDICATED** during the 1st trimester. Never administer sublingually (risk of foetal death from placental hypoperfusion).*
- *Breast-feeding: avoid*

Remarks
- For the management of hypertension in pregnancy, use labetalol or methyldopa.
- Short-acting formulations of nifedipine should not be used in hypertension since their use may cause excessive fall in blood pressure and cerebral or myocardial ischaemia.
- Prolonged-release tablets must be swallowed whole.
- Also comes in 20 mg, 30 mg, 60 mg and 90 mg prolonged-release tablets to be administered once daily or to be administered twice daily. Follow manufacturer's instructions.
- *Storage: below 25°C –*

NITROFURANTOIN

Prescription under medical supervision

Therapeutic action
- Antibacterial (group of nitrofuranes)

Indications
- Uncomplicated cystitis, without fever or lower back pain

Presentation
- 100 mg tablet

Dosage and duration
- Adult: 300 mg/day in 3 divided doses for 5 to 7 days maximum

Contra-indications, adverse effects, precautions
- Do not administer to patients with renal impairment, G6PD deficiency or allergy to nitrofurantoin.
- May cause:
  - nausea, vomiting, headache, dizziness, brownish urine;
  - haemolytic anaemia in patients with G6PD deficiency, pulmonary and hepatic disorders, allergic reactions.
- Do not administer simultaneously with antacids (aluminium or magnesium hydroxide, etc.). Administer doses at least 2 hours apart.
- *Pregnancy: **CONTRA-INDICATED** during the last month of pregnancy (risk of haemolysis in the newborn infant)*
- *Breast-feeding: avoid during the first month*

Remarks
- Take during meals.
- Do not use nitrofurantoin to prevent cystitis.
- Also comes in 25 mg/5 ml oral solution.
- *Storage: below 25°C* –  – 

NYSTATIN

Therapeutic action
- Antifungal

Indications
- Mild oropharyngeal candidiasis

Presentation
- 100 000 IU/ml oral suspension, bottle with calibrated dropper

Also comes in 100 000 IU lozenges to be sucked.

Dosage and duration
- Child and adult: 400 000 IU/day in 4 divided doses (1 ml of the oral suspension or one lozenge to be sucked, 4 times daily) for 7 days
  The oral suspension should be retained in the mouth for a few minutes before swallowing, or, in young children, applied to the tongue and the inside of the cheeks.

Contra-indications, adverse effects, precautions
- Take between meals (e.g. at least 30 minutes before eating).
- Shake oral suspension well before using.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- For the treatment of moderate to severe oropharyngeal candidiasis, use fluconazole.
- Nystatin also comes in 100 000 IU and 500 000 IU film coated tablets for the treatment of oesophageal candidiasis. These tablets are meant to be swallowed directly, without being sucked. They should not be used for the treatment of oropharyngeal candidiasis as this requires topical treatment.
- For oesophageal candidiasis, oral fluconazole is recommended for first-line treatment. Film coated nystatin tablets (400 000 IU/day in children and 2 000 000 IU/day in adults, in 4 divided doses for 2 to 3 weeks) should only be used when fluconazole is not available or contra-indicated.
- *Storage: below 25°C*
  Once the vial has been opened, the oral suspension keeps 7 days maximum.

OMEPRAZOLE

Prescription under medical supervision

Therapeutic action
– Antiulcer drug (proton pump inhibitor)

Indications
– Gastro-oesophageal reflux
– Gastric and duodenal ulcers in adult

Presentation
– 10 mg dispersible gastro-resistant tablet
– 20 mg gastro-resistant capsule

Dosage
– *Gastro-oesophageal reflux*
Child under 5 kg: 0.7 to 1.4 mg/kg/day (max. 2.8 mg/kg)
Child 5 to 10 kg: 5 mg/day
Child 10 to 20 kg: 10 mg/day
Child over 20 kg and adult: 20 mg/day
Omeprazole is taken once daily in the morning.

Age	Weight	1 mg/ml sol.*	10 mg tablet**	20 mg capsule
< 2 months	< 5 kg	3 ml	–	–
2 months to < 1 year	5 to < 10 kg	5 ml	–	–
1 to < 6 years	10 to < 20 kg	–	1 tab	–
≥ 6 years and adult	≥ 20 kg	-	–	1 cap

* In a syringe, dissolve a ½ dispersible tablet (5 mg) in 5 ml of water to obtain a solution of 1 mg/ml.
** Dissolve 1 dispersible tablet in half a glass.

– *Gastric and duodenal ulcers*
Adult: 20 mg once daily in the morning

Duration
– *Gastro-oesophageal reflux*: 3 days (short-term relief of symptoms) or 4 to 8 weeks (long-term treatment); *gastric and duodenal ulcers*: 7 to 10 days

Contra-indications, adverse effects, precautions
– Do not exceed 0.7 mg/kg/day (max. 20 mg/day) in patients with severe hepatic impairment.
– May cause: headache, diarrhoea, constipation, nausea, vomiting, abdominal pain, dizziness, skin rash, fatigue.
– Monitor combination with:
  • atazanavir, itraconazole (decreased efficacy of these drugs);
  • diazepam, phenytoin, digoxin, raltegravir (increased toxicity of these drugs).
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Do not open capsules.
– Omeprazole is also used in combination with 2 antibacterial drugs for cure of Helicobacter pylori infection.
– *Storage: below 25°C –*
Once dissolved, dispersible tablets should be administered within 30 minutes.

ORAL REHYDRATION SALTS = ORS

Therapeutic action

– Prevention and treatment of dehydration from acute diarrhoea, cholera, etc.

Presentation

– Sachet of powder to be diluted in 1 litre of clean water.
– WHO formulation:

	grams/litre		mmol/litre
sodium chloride	2.6	sodium	75
glucose	13.5	chloride	65
potassium chloride	1.5	glucose	75
trisodium citrate	2.9	potassium	20
		citrate	10
Total weight	20.5	Total osmolarity	245

Dosage

– *Prevention of dehydration (WHO - Treatment plan A)*
Child under 24 months: 50 to 100 ml after each loose stool (approximately 500 ml/day)
Child from 2 to 10 years: 100 to 200 ml after each loose stool (approximately 1000 ml/day)
Child over 10 years and adult: 200 to 400 ml after each loose stool (approximately 2000 ml/day)

– *Treatment of moderate dehydration (WHO - Treatment plan B)*
Child and adult:
Over the first four hours:

Age	under 4 months	4 to 11 months	12 to 23 months	2 to 4 years	5 to 14 years	15 years and over
Weight	under 5 kg	5 to 7.9 kg	8 to 10.9 kg	11 to 15.9 kg	16 to 29.9 kg	30 kg and over
ORS in ml	200 to 400	400 to 600	600 to 800	800 to 1200	1200 to 2200	2200 to 4000

After four hours:
If there are no signs of dehydration: follow *Treatment plan A*.
If there are signs of moderate dehydration: repeat *Treatment plan B*.
If there are signs of severe dehydration: start IV therapy (*Treatment plan C*).

– *Treatment of severe dehydration (WHO - Treatment plan C)*
In combination with IV therapy and only to a conscious patient:
Child and adult: 5 ml/kg/hour
After 3 hours (6 hours in infants), reassess and choose the appropriate *plan A*, *B* or *C*.

Duration

– As long as diarrhoea and signs of dehydration persist.

Contra-indications, adverse effects, precautions

– If the eyelids become puffy during the treatment: stop ORS, give plain water then, resume ORS according to Treatment plan A when the puffiness is gone.
– If case of vomiting, stop ORS for 10 min and then resume at a slower rate (very small, frequent, amounts); do not stop rehydration.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks

– A special ORS-formula, ReSoMal, is used under medical supervision, for severely malnourished children only. However, in malnourished children with cholera, standard ORS-formula is used instead of ReSoMal.
– *Storage: below 25°C* –
Do not use the powder if it has turned into a yellow-brownish sticky substance.
Once prepared, the solution must be used within 24 hours.

PARACETAMOL = ACETAMINOPHEN

Therapeutic action
– Analgesic, antipyretic

Indications
– Mild pain
– Fever

Presentation
– 100 mg and 500 mg tablets
– 120 mg/5 ml oral suspension

Dosage
– Child: 60 mg/kg/day in 3 or 4 divided doses
– Adult: 3 to 4 g/day in 3 or 4 divided doses

Age	Weight	120 mg/5 ml susp.	100 mg tablet	500 mg tablet
< 1 month	< 4 kg	1.5 ml x 3	–	–
1 to < 3 months	4 to < 6 kg	2.5 ml x 3	½ tab x 3	–
3 months to < 1 year	6 to < 10 kg	4 ml x 3	1 tab x 3	–
1 to < 3 years	10 to < 15 kg	6 ml x 3	1½ tab x 3	–
3 to < 5 years	15 to < 20 kg	8 ml x 3	2 tab x 3	–
5 to < 9 years	20 to < 30 kg	12 ml x 3	3 tab x 3	–
9 to < 14 years	30 to < 50 kg	–	–	1 tab x 3
≥ 14 years and adult	≥ 50 kg	–	–	2 tab x 3

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– Administer with caution to patients with hepatic impairment.
– Do not exceed indicated doses, especially in children and elderly patients. Paracetamol intoxications are severe (hepatic cytolysis).
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– For mild pain, paracetamol is used alone or in combination with an NSAID.
– For moderate pain, paracetamol is used in combination with an NSAID and codeine or tramadol.
– For severe pain, paracetamol is used in combination with an NSAID and morphine.
– Paracetamol is particularly recommended for patients allergic to aspirin, patients with a history of gastric problems and for pregnant and breast-feeding women and children.
– Paracetamol has no anti-inflammatory properties.
– *Storage: below 25°C* – 

PAROXETINE

Prescription under medical supervision

Therapeutic action
- Antidepressant, selective serotonin re-uptake inhibitor (SSRI)

Indications
- Major depression
- Severe post-traumatic stress disorders

Presentation
- 20 mg scored tablet

Dosage
- Adult: 20 mg once daily in the evening

Duration
- 6 months minimum. The treatment should be discontinued gradually (10 mg/day for one week then, 10 mg on alternate days for one week). If signs of relapse occur, increase the dose.

Contra-indications, adverse effects, precautions
- Administer with caution and monitor use in patients with epilepsy, diabetes, history of gastrointestinal bleeding or bipolar disorders.
- May cause:
  - allergic reactions (rare): stop treatment;
  - drowsiness (caution when driving/operating machinery), gastrointestinal disturbances (take during a meal), sexual dysfunction, headache, dizziness, blurred vision;
  - psychic disorders: exacerbation of anxiety, possibility of a suicide attempt at the beginning of therapy, manic episode during the course treatment;
  - withdrawal symptoms (dizziness, paresthesia, nightmares, etc.) very frequent if the treatment is discontinued abruptly.
- Do not combine with another antidepressant.
- Monitor combination with: phenytoin (toxicity increased), drugs which lower the seizure threshold (antispychotics, mefloquine, tramadol, etc.), lithium and other serotonergics.
- Avoid aspirin and NSAIDs (risk of bleeding) and alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, observe the newborn infant if the mother was under treatment in the 3rd trimester (risk of irritability, tremors, hypotony, sleeping disorders, etc.).*
- Breast-feeding: no contraindication

Remarks
- The antidepressant effect is not immediate. It is necessary to wait 3 weeks before assessing therapeutic efficacy. This must be explained to the patient.
- In case of insufficient response after 4 weeks, dosage may be increased to 40 mg/day (do not exceed 20 mg/day in the event of hepatic or renal impairment).
- In elderly patients, SSRI are preferred to tricyclics (less contraindications, less adverse effects).
- *Storage: below 25°C*

PHENOBARBITAL

Prescription under medical supervision

Therapeutic action
- Anticonvulsant, sedative and hypnotic

Indications
- Epilepsy: tonic-clonic (grand mal) and partial (focal) seizures

Presentation
- 50 mg and 60 mg tablets
- 5.4% oral solution (1 drop = 1 mg)

Dosage
Follow national protocol.
For information:
- Child: initial dose of 3 to 4 mg/kg once daily or in 2 divided doses, increase to 8 mg/kg/day if necessary
- Adult: initial dose of 2 mg/kg once daily at bedtime (up to 100 mg maximum), then, increase gradually if necessary, to the maximum dose of 6 mg/kg/day in 2 to 3 divided doses.

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Do not administer in respiratory depression.
- May cause: drowsiness, depression of the central nervous system.
- Do not stop treatment abruptly.
- Risk of increased sedation when combined with alcohol and drugs acting on the central nervous system such as diazepam, chlorphenamine, chlorpromazine, etc.
- Decreases oral contraceptive efficacy.
- *Pregnancy: avoid*
- *Breast-feeding: avoid*

Remarks
- Phenobarbital is subject to international controls: follow national regulations.
- Plasma-concentrations are stable after 2 to 3 weeks. Caution: risk of accumulation.
- If necessary, phenytoin may be combined with phenobarbital.
- Also comes in 15 mg to 100 mg tablets.
  Storage: below 25°C –

PHENOXYMETHYLPENICILLIN = PENICILLIN V

Prescription under medical supervision

Therapeutic action
– Penicillin antibacterial

Indications
– Streptococcal tonsillitis, scarlet fever
– Completion treatment following parenteral therapy with penicillin

Presentation
– 250 mg tablet (400 000 IU)
– Powder for oral suspension, 125 mg/5 ml (200 000 IU/5 ml), to be reconstituted with filtered water

Dosage
– Child under one year: 250 mg/day in 2 divided doses
– Child 1 to 6 years: 500 mg/day in 2 divided doses
– Child 6 to 12 years: 1 g/day in 2 divided doses
– Child over 12 years and adult: 2 g/day in 2 divided doses

Age	Weight	125 mg/5 ml oral susp.	250 mg tablet
< 1 year	< 10 kg	1 tsp x 2	–
1 to < 6 years	10 to < 21 kg	2 tsp x 2	–
6 to < 12 years	21 to < 39 kg	4 tsp x 2	2 tab x 2
≥ 12 years and adult	≥ 39 kg	–	4 tab x 2

Duration
– *Streptococcal tonsillitis, scarlet fever*: 10 days

Contra-indications, adverse effects, precautions
– Do not administer to patients with allergy to penicillin.
– Administer with caution to patients with allergy to cephalosporin (cross-sensitivity may occur) or severe renal impairment (reduce dose).
– May cause: diarrhea, nausea; allergic reactions sometimes severe.
– Do not combine with methotrexate.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– Take between meals.
– Also comes in 250 mg/5 ml (400 000 IU/5 ml) oral solution.
– *Storage: below 25°C* –  – 
For the oral suspension (powder or reconstituted suspension): follow manufacturer's instructions.

PHENYTOIN

Prescription under medical supervision

Therapeutic action
– Anticonvulsant

Indications
– Epilepsy, except absence seizure (petit mal)

Presentation
– 100 mg tablet
Aslo comes in 25 mg and 50 mg tablets.

Dosage
– Child: 3 to 8 mg/kg/day in 2 to 3 divided doses
– Adult: 2 to 6 mg/kg/day in 2 to 3 divided doses; do not exceed 500 to 600 mg/day

Duration
– According to clinical response

Contra-indications, adverse effects, precautions
– Do not administer in case of hypersensitivity to phenytoin.
– May cause:
  • gastro-intestinal disturbances: gingival hypertrophy, nausea, vomiting;
  • blood disorders: monitor blood counts if possible and administer folic acid in case of prolonged use;
  • neurological disorders: dizziness, visual disturbances, mental confusion;
  • allergic reactions: cutaneous eruption, fever, adenopathy.
– Do not stop treatment abruptly, decrease daily doses gradually.
– It is not recommended to combine phenytoin with oral contraceptives, sulphonamides, or chloramphenicol. Combination with other drugs must be closely monitored (diazepam, phenobarbital, digoxin, corticosteroids, etc.).
– *Pregnancy: avoid*
– *Breast-feeding: avoid*

Remarks
– *Storage: below 25°C –*
Never use phenytoin after expiry date (risk of underdosage).

POTASSIUM CHLORIDE
immediate-release

Prescription under medical supervision

Therapeutic action
- Potassium supplement, when immediate effect is required

Indications
- Treatment of moderate hypokalaemia in patients with cholera

Presentation
- 7.5% potassium chloride syrup (1 mmol of K^+/ml)

Dosage
- Child under 13 years: 2 mmol (2 ml)/kg/day in 2 or 3 divided doses
- Child 13 years and over and adult: 90 mmol (ml)/day in 3 divided doses

Age	Weight	7.5% syrup
< 2 months	< 5 kg	4 ml x 2
2 months to < 1 year	5 to < 10 kg	6 ml x 2
1 to < 3 years	10 to < 15 kg	12 ml x 2
3 to < 5 years	15 to < 20 kg	20 ml x 2
5 to < 7 years	20 to < 25 kg	25 ml x 2
7 to < 9 years	25 to < 30 kg	20 ml x 3
9 to < 13 years	30 to < 45 kg	25 ml x 3
≥ 13 years and adult	≥ 45 kg	30 ml x 3

Duration
- According to clinical response. Treatment of 1 to 2 days is typically sufficient when the patient is fully able to drink oral rehydration solution and can eat.

Contra-indications, adverse effects, precautions
- Reduce dosage in elderly patients and patients with renal impairment (risk of hyperkalaemia).
- Do not combine with spironolactone and angiotensin-converting-enzyme inhibitors (e.g. enalapril).
- May cause: gastrointestinal ulcerations, diarrhoea, nausea and vomiting, rarely hyperkalaemia.
- Administer with caution in patients with gastrointestinal ulcer (risk of gastrointestinal ulcerations).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Take with or at the end meals in order to reduce the risk of gastrointestinal ulcerations.
- Hypokalaemia is defined as a serum potassium concentration below 3.5 mmol/l.
- *Storage: below 25°C*

POTASSIUM CHLORIDE
sustained-release

Prescription under medical supervision

Therapeutic action
- Potassium supplement

Indications
- Hypokalaemia induced by :
  - thiazide diuretics (e.g. hydrochlorothiazide)
  - loop diuretics (e.g. furosemide)

Presentation
- 600 mg potassium chloride sustained-release tablet (8 mmol of K^+)

Dosage
- Adult: 15 to 25 mmol/day = 2 to 3 tablets/day in 2 to 3 divided doses
- Do not exceed indicated doses if potassium serum levels cannot be measured.

Duration
- According to clinical response and duration of diuretic treatment

Contra-indications, adverse effects, precautions
- Administer with caution and reduce dosage in elderly patients and in patients with renal impairment (risk of hyperkalaemia).
- Do not combine with spironolactone and angiotensin-converting-enzyme inhibitors (e.g. enalapril).
- May cause: hyperkalaemia, gastroduodenal ulcerations, diarrhoea, nausea and vomiting.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Take with or at the end meals in order to reduce the risk of gastrointestinal ulcerations.
- Hypokalaemia is defined as a serum potassium concentration below 3.5 mmol/l.
- If tablets are not available, a lack of potassium may be corrected by a diet rich in dates, bananas, mangos, oranges, tomatoes, etc.
- *Storage: below 25°C* – 

PRAZIQUANTEL

Prescription under medical supervision

Therapeutic action
– Anthelminthic

Indications
– Urinary (*S. haematobium*) and intestinal (*S. mansoni, S. japonicum, S. mekongi, S. intercalatum*) schistosomiasis
– Taeniasis (*T. saginata, T. solium, H. nana*)
– Pulmonary (*P. westermani*), hepatobiliary (*O. felineus, O. viverrini, C. sinensis*) and intestinal (*F. buski, H. heterophyes, M. yokogawai*) flukes

Presentation
– 150 mg and 600 mg tablets

Dosage and duration
Child over 2 years and adult:
– *Schistosomiasis*
  • *S. haematobium, S. mansoni, S. intercalatum*: 40 mg/kg as a single dose or in 2 divided doses administered 4 hours apart
  • *S. japonicum, S. mekongi*: 40 mg/kg as a single dose or 60 mg/kg in 2 to 3 divided doses administered 4 hours apart
– *Taeniase*
  • *T. saginata, T. solium*: 5 to 10 mg/kg as a single dose
  • *H. nana*: 25 mg/kg as a single dose
– *Fluke infections*
  • lung: 75 mg/kg/day in 3 divided doses for 2 to 3 days
  • hepatobiliary: 75 mg/kg/day in 3 divided doses for 1 to 2 days
  • intestinal: 75 mg/kg in 3 divided doses, 1 day

Contra-indications, adverse effects, precautions
– Do not administer to patients with ocular cysticercosis.
– May cause:
  • drowsiness, headache, gastrointestinal disturbances, dizziness; rarely: allergic reactions;
  • neurological disorders (headache, seizures) in patients with undiagnosed neurocysticercosis.
– *Pregnancy: no contra-indication for the treatment of schistosomiasis and taeniasis. If immediate treatment not considered essential for fluke infections, it should be delayed until after delivery.*
– *Breast-feeding: no contra-indication*

Remarks
– Praziquantel is not active against certain liver flukes (*Fasciola hepatica* and *gigantica*). For this indication, use triclabendazole.
– *Storage: below 25°C* –

PREDNISOLONE and PREDNISONE

Prescription under medical supervision

Therapeutic action

– Steroidal anti-inflammatory drug (corticosteroid)

Indications

– Symptomatic treatment of allergic and inflammatory diseases or reactions, e.g.:
  • *Pneumocystis carinii* (*jiroveci*) pneumonia with severe hypoxia
  • Certain severe forms of extra-pulmonary tuberculosis
  • Severe immune reconstitution syndrome, following initiation of antiretroviral or antituberculous treatment
  • Leprous neuropathy (especially reversal reaction)
  • Severe persistent asthma, in the event of treatment failure with high doses of inhaled corticoids
– Prevention of inflammatory reaction triggered by antiparasitic treatment (e.g. trichinellosis)

Presentation

– 5 mg tablet

Dosage

The dose depends on indication, patient's response and tolerance. If treatment lasts over 10 days, a high initial dose should be reduced as quickly as possible to the lowest effective maintenance dose.

– Child:
  • Initial dose: 0.5 to 2 mg/kg/day
  • Maintenance dose: 0.25 to 0.5 mg/kg/day
– Adult:
  • Initial dose: 20 to 70 mg/day
  • maintenance dose: 5 to 15 mg/day
– Administer preferably as a single daily dose, in the morning, with food.

Duration

– According to indication and clinical response. If the treatment lasts more than 3 weeks: do not stop abruptly, reduce the daily dose gradually.

Contra-indications, adverse effects, precautions

– Do not administer to patients with active peptic ulcer (except if ulcer under treatment); infections not controlled by a specific treatment; acute viral infection (e.g. hepatitis, herpes simplex or zoster).
– May cause (prolonged treatment with high doses): adrenal suppression, muscle atrophy, growth retardation, increased susceptibility to infections, hypokalaemia, sodium and water retention (oedema and hypertension), osteoporosis.
– In the event of acute adrenal failure, use IV hydrocortisone.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication; take tablets just after a feed and wait 4 hours before the next feed if possible.*

Remarks

– 5 mg of prednisolone has the same anti-inflammatory activity as 5 mg of prednisone, 0.75 mg of dexamethasone and 20 mg of hydrocortisone.
– *Storage: below 25°C* – 

PROMETHAZINE

Prescription under medical supervision

Therapeutic action
– Sedating antihistamine

Indications
– Symptomatic treatment of minor allergic reactions (contact dermatitis, seasonal allergy, allergy to drugs, food, etc.)

Presentation
– 25 mg tablet

Also comes in 10 mg tablet and in 5 mg/5 ml syrup.

Dosage
– Child from 2 to 5 years: 10 mg/day in 2 divided doses or 5 to 15 mg once daily at bedtime
– Child from 5 to 10 years: 10 to 25 mg/day in 2 divided doses or once daily at bedtime
– Child over 10 years and adult: 25 to 75 mg/day in 3 divided doses or once daily at bedtime

Duration
– According to clinical response; single dose or for a few days

Contra-indications, adverse effects, precautions
– Do not administer to patients with prostate disorders or closed-angle glaucoma and to children less than 2 years.
– Administer with caution and monitor use in patients > 60 years and in children (risk of agitation, excitability).
– May cause: drowsiness (caution when driving/operating machinery), anticholinergic effects (dry mouth, blurred vision, constipation, tachycardia, disorders of micturition), headache, tremor, allergic reactions.
– Monitor combination with CNS depressants (opioid analgesics, antipsychotics, sedatives, antidepressants, etc.) and drugs known to have anticholinergic effects (amitriptyline, atropine, chlorpromazine, clomipramine, etc.).
– Avoid alcohol during treatment.
– *Pregnancy: avoid at the end of pregnancy;* NO PROLONGED TREATMENT
– *Breast-feeding: no contra-indication; monitor the child for excessive somnolence.*

Remarks
– *Storage: below 25°C*

PYRANTEL

Therapeutic action
- Anthelminthic

Indications
- Ascariasis
- Enterobiasis
- Ancylostomiasis
- Trichinellosis

Presentation
- 250 mg pyrantel embonate chewable tablet
- Oral suspension, 50 mg pyrantel embonate per ml

Dosage and duration
- *Ascariasis*
  Child and adult: 10 mg/kg as a single dose
- *Enterobiasis*
  Child and adult: 10 mg/kg as a single dose followed by a second dose after 2 to 4 weeks
- *Ancylostomiasis*
  Child and adult: 10 mg/kg as a single dose; in severe infection, 10 mg/kg once daily for 4 days
- *Trichinellosis*
  Child and adult: 10 mg/kg once daily for 5 days

Contra-indications, adverse effects, precautions
- May cause: gastrointestinal disturbances, headache, dizziness, drowsiness, skin rash.
- Reduce dosage in patients with hepatic impairment.
- *Pregnancy: avoid during the first trimester*
- *Breast-feeding: no contra-indication*

Remarks
- Preferably use albendazole or mebendazole for these indications. However, when these drugs are contra-indicated, e.g. in children under one year, pyrantel is an alternative.
- *Storage: below 25°C* –

PYRAZINAMIDE = Z

Prescription under medical supervision

Therapeutic action
- First line antituberculous antibacterial (sterilising and bactericidal activity)

Indications
- Tuberculosis, in combination with other antituberculous antibacterials

Presentation
- 400 mg tablet

Dosage
- Child under 30 kg: 35 mg/kg (30 to 40 mg/kg/day) once daily
- Child over 30 kg and adult: 25 mg/kg (20 to 30 mg/kg/day) once daily
- Maximum dose: 2 g/day

Duration
- According to protocol

Contra-indications, adverse effects, precautions
- Do not administer to patients with hypersensitivity to pyrazinamide, severe hepatic impairment or severe gout.
- Reduce the dose in patients with renal impairment (25 mg/kg/dose 3 times per week).
- May cause: gout and arthralgias, hepatic disorders (jaundice), photosensitivity (limit sun exposure), rash, gastrointestinal disturbances, hypersensitivity reactions.
- If signs of hepatotoxicity (e.g. jaundice) develop, pyrazinamide should be discontinued until symptoms resolve.
- *Pregnancy: safety of pyrazinamide in the first trimester is not definitely established. However, given the severity of the disease, it may be used during pregnancy.*
- *Breast-feeding: no contra-indication*

Remarks
- For patients on first-line antituberculous treatment, pyrazinamide is given as part of a fixed dose combination (isoniazid+rifampicin+pyrazinamide+ethambutol or isoniazid+ rifampicin+ pyrazinamide).
- *Storage: below 25°C* –  – 

PYRIDOXINE = VITAMIN B6

Therapeutic action
– Vitamin

Indications
– Prevention and treatment of isoniazid-induced peripheral neuropathy

Presentation
– 25 mg tablet
Also comes in 10 mg and 50 mg tablets.

Dosage
– *Prevention of isoniazid neuropathy*
Child under 5 kg: 5 mg once daily
Child over 5 kg and adult: 10 mg once daily
– *Treatment of isoniazid neuropathy*
Child: 50 mg once daily
Adult: 150 mg/day in 3 divided doses

Duration
– *Prevention*: as long as treatment with isoniazid continues.
– *Treatment*: according to clinical response (in general, ≤ 3 weeks) then, preventive dose, as long as treatment with isoniazid continues.

Contra-indications, adverse effects, precautions
– No contra-indication.
– May cause: peripheral neuropathy in the event of prolonged use with doses ≥ 200 mg/day.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– In children receiving isoniazid prophylaxis or treatment for tuberculosis: concomitant administration of pyridoxine at preventive dosage is recommended for children under 5 years and all children infected with HIV.
– Pyridoxine is also used for the prevention and treatment of cycloserin-induced neuropathy (150 to 200 mg/day in adults, in divided doses).
– *Storage: below 25°C* – 

PYRIMETHAMINE

Prescription under medical supervision

Therapeutic action

- Antiprotozoal

Indications

- Treatment and secondary prophylaxis of toxoplasmosis in immunodeficient patients, in combination with sulfadiazine or clindamycin
- Primary prophylaxis of toxoplasmosis in immunodeficient patients, in combination with dapsone (only if cotrimoxazole cannot be used)
- Second-line treatment of isosporiasis in immunodeficient patients (only if cotrimoxazole cannot be used)

Presentation

- 25 mg tablet

Dosage and duration

- *Treatment of toxoplasmosis*
  Adult: 200 mg in 2 divided doses on the first day, then 75 to 100 mg/day for at least 6 weeks
- *Secondary prophylaxis of toxoplasmosis*
  Adult: 25 to 50 mg/day, as long as necessary
- *Primary prophylaxis of toxoplasmosis*
  Adult: 50 to 75 mg/week, as long as necessary
- *Treatment of isosporiasis*
  Adult: 50 to 75 mg/day for 10 days

Contra-indications, adverse effects, precautions

- Do not administer to patients with severe renal or hepatic impairment.
- May cause: gastrointestinal disturbances, seizures, leucopenia, thrombocytopenia, megaloblastic anaemia due to folinic acid deficiency.
- Administer calcium folinate to prevent folinic acid deficiency.
- Avoid if possible combination with other folate antagonists: cotrimoxazole, methotrexate (increased risk of folinic acid deficiency).
- Monitor combination with zidovudine (increased risk of zidovudine-associated haematotoxicity).
- *Pregnancy*: ***CONTRA-INDICATED*** *during the first trimester*
- *Breast-feeding: no contra-indication; however avoid concomitant administration of other folate antagonists.*

Remarks

- The combination of sulfadoxine/pyrimethmine is used for the treatment of uncomplicated falciparum malaria.
- *Storage: below 25°C*

QUININE

Prescription under medical supervision

Therapeutic action
- Antimalarial

Indicatio
- Treatment of uncomplicated falciparum malaria
- Completion treatment following parenteral therapy with quinine for severe falciparum malaria

Presentation
- 300 mg quinine sulfate tablet

Dosage and duration
- Dosage is expressed in terms of salt. With the exception of quinine bisulfate, the dosage is the same for all quinine salts (sulfate, hydrochloride, dihydrochloride):
  Child and adult < 50 kg: 30 mg/kg/day in 3 divided doses at 8-hour intervals for 7 days
  Adult ≥ 50 kg: 1800 mg/day in 3 divided doses at 8-hour intervals for 7 days

Age	Weight	300 mg tablet
5 months to < 2 years	7 to < 12 kg	¼ tab x 3
2 to < 8 years	12 to < 25 kg	½ tab x 3
8 to < 11 years	25 to < 35 kg	1 tab x 3
11 to < 14 years	35 to < 50 kg	1½ tab x 3
≥ 14 years	≥ 50 kg	2 tab x 3

Contra-indications, adverse effects, precautions
- May cause: headache, skin rash; visual, auditory and gastrointestinal disturbances.
- Do not exceed indicated doses: risk of toxicity in the event of overdose.
- If the patient vomits within one hour after administration, repeat the full dose.
- Do not combine with chloroquine, halofantrine and mefloquine.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- 10 mg of quinine sulfate or hydrochloride or dihydrochloride = 8 mg of quinine base; 14 mg of quinine bisulfate = 8 mg of quinine base.
- In pregnant women, quinine is administered in combination with clindamycin.
- Quinine should not be used for prophylaxis.
- The 300 mg tablets are not suitable for use in children under 5 months.
- *Storage: below 25°C* – 

ReSoMal

Rehydration **So**lution for **Mal**nutrition

Prescription under medical supervision

Therapeutic action

– Oral rehydration salts with high potassium and low sodium contents

Indications

– Prevention and treatment of dehydration, in patients suffering from complicated acute malnutrition only

Presentation

– Sachet containing 84 g of powder, to be diluted in 2 litres of clean, boiled and cooled water

Composition for one litre:

	mmol/litre		mmol/litre
Glucose	55	Citrate	7
Saccharose	73	Magnesium	3
Sodium	45	Zinc	0.3
Potassium	40	Copper	0.045
Chloride	70	Osmolarity	294 mEq/litre

Dosage and duration

– *Prevention of dehydration*
Child under 2 years: 50 to 100 ml after each loose stool as long as diarrhoea persists
Child over 2 years: 100 to 200 ml after each loose stool as long as diarrhoea persists
Adult: 200 to 400 ml after each loose stool as long as diarrhoea persists

– *Treatment of dehydration*
Child and adult: 5 ml/kg every 30 minutes over the first 2 hours, then 5 to 10 ml/kg/hour for the next 4 to 10 hours, until dehydration is corrected.

Contra-indications, adverse effects, precautions

– Do not administer to patients with cholera or uncomplicated acute malnutrition: use standard ORS instead.
– May cause: heart failure when administered too rapidly. During treatment, closely monitor the rate of administration in order to avoid overhydration. Increase in respiratory and pulse rates and appearance or increase of oedema are signs of over rapid rehydration. In this event, stop ReSoMal for one hour then reassess the patient's condition.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks

– *Storage: below 25°C* –  – 
Do not use the powder if it has turned sticky.
Once prepared, the solution should be used within 24 hours.

RETINOL = VITAMIN A

Therapeutic action
– Vitamin

Indications
– Prevention of vitamin A deficiency
– Treatment of vitamin A deficiency (xerophthalmia)

Presentation
– 200 000 IU capsule
Also comes in 10 000 IU coated tablet, 100 000 IU capsule and 100 000 IU/ml oral solution.

Dosage and duration
– *Prevention of vitamin A deficiency*
Child under 6 months: 50 000 IU as a single dose
Child from 6 to 12 months: 100 000 IU as a single dose every 4 to 6 months
Child over 1 year: 200 000 IU as a single dose every 4 to 6 months
– *Treatment of vitamin A deficiency*
Child under 6 months: 50 000 IU once daily on D1, D2 and D8 (or D15)
Child from 6 to 12 months: 100 000 IU once daily on D1, D2 and D8 (or D15)
Child over 1 year and adult: 200 000 IU once daily on D1, D2 and D8 (or D15)

Age	200 000 IU capsule	
	Prevention	Treatment
< 6 months	2 drops	2 drops
6 months to < 1 year	4 drops	4 drops
1 to < 5 years	1 cap	1 cap
≥ 5 years and adult	–	1 cap

Contra-indications, adverse effects, precautions
– Do not exceed indicated doses.
– Overdosage may cause: gastrointestinal disturbances, headache, raised intracranial pressure (bulging fontanelle in infants); foetal abnormalities.
– *Pregnancy:*
Prevention: after delivery only, 200 000 IU as a single dose
Treatment: dosage depends on severity of eye lesions:
• *Night blindness and Bitot's spots: 10 000 IU once daily or 25 000 IU once weekly for at least 4 weeks*
• *Corneal lesion: 200 000 IU once daily on D1, D2 and D8 (or D15)*
– *Breast-feeding: no contra-indication at recommended doses*

Remarks
– Administer routinely 2 doses (on D1 and D2) to children suffering from measles to prevent the complications of measles.
– One 200 000 IU capsule contains about 8 drops (1 drop = 25 000 IU).
– *Storage: below 25°C* –

RIFAMPICIN = R

Prescription under medical supervision

Therapeutic action
- First line antituberculous antibacterial (sterilising and bactericidal activity)
- Antileprotic antibacterial (bactericidal activity)

Indications
- Tuberculosis, in combination with other antituberculous antibacterials
- Paucibacillary leprosy, in combination with dapsone
- Multibacillary leprosy, in combination with dapsone and clofazimine

Presentation
- 150 mg and 300 mg tablets or capsules

Dosage
- *Tuberculosis*
  Child under 30 kg: 15 mg/kg (10 to 20 mg/kg/day) once daily, on an empty stomach
  Child over 30 kg and adult: 10 mg/kg (8 to 12 mg/kg/day) once daily, on an empty stomach
  Maximum dose: 600 mg/day
- *Paucibacillary and multibacillary leprosy*
  Child under 10 years: 12 to 15 mg/kg once monthly, on an empty stomach
  Child from 10 to 14 years: 450 mg once monthly, on an empty stomach
  Adult: 600 mg once monthly, on an empty stomach

Duration
- *Tuberculosis*: according to protocol; *paucibacillary leprosy*: 6 months; *multibacillary leprosy*: 12 months

Contra-indications, adverse effects, precautions
- Do not administer to patients with jaundice, hypersensitivity to rifamycins or history of severe haematological disorders (thrombocytopenia, purpura) during a previous treatment with rifamycins.
- Avoid or administer with caution to patients with hepatic impairment (do not exceed 8 mg/kg/day).
- May cause:
  - orange-red discoloration of body secretions (urine, tears, saliva, sputum, sweat, etc.), normal, harmless;
  - gastrointestinal disturbances, headache, drowsiness, hepatic disorders;
  - influenza-like syndrome (more frequent when treatment is not taken regularly);
  - thrombocytopenia, hypersensitivity reactions.
- If signs of hepatotoxicity (e.g. jaundice) develop, rifampicin should be discontinued until symptoms resolve.
- In patients taking nevirapine, indinavir, nelfinavir, lopinavir/ritonavir, atazanavir/ritonavir, use rifabutin in place of rifampin.
- Rifampicin reduces the effect of many drugs (antimicrobials, some hormones, antidiabetics, corticoids, phenytoin, etc.):
  - In women, use a non-hormonal contraception or injectable medroxyprogesterone or, as a last resort, use an oral contraceptive containing 50 µg ethinylestradiol per tablet.
  - In the event of concomitant fluconazole administration, administer each drug 12 hours apart (rifampicin in the morning, fluconazole in the evening).
  - For the other drugs, adjust dosage if necessary.
- *Pregnancy: no contra-indication. Risk of maternal and neonatal bleeding disorders when the mother receives rifampicin in late pregnancy: administer phytomenadione (vitamin K) to the mother and the newborn to reduce the risk.*
- *Breast-feeding: no contra-indication*

Remarks
- For patients on first-line antituberculous treatment, rifampicin is given as part of a fixed dose combination (isoniazid+rifampicin+ pyrazinamide+ethambutol or isoniazid+rifampicin+ pyrazinamide or isoniazid+rifampicin).
- For the treatment of *single skin lesion* paucibacillary leprosy, rifampicin (600 mg) + ofloxacin (400 mg) + minocycline (100 mg) are administered as a single dose.
- Rifampicin is also used in combination with co-trimoxazole for the treatment of brucellosis in children < 8 years and pregnant/breastfeeding women.
- *Storage: below 25°C* –  – 

RISPERIDONE

Prescription under medical supervision

Therapeutic action
- Atypical antipsychotic

Indications
- Acute or chronic psychosis
- Acute moderate to severe manic episode

Presentation
- 1 mg tablet

Dosage
- *Acute or chronic psychosis*
  Adult: 2 mg in 2 divided doses on Day 1 then 4 mg/day in 2 divided doses as of Day 2
  The dose may be increased to 6 mg/day in 2 divided doses if needed.
- *Acute moderate to severe manic episode*
  Adult: 2 mg once daily; increase if necessary in steps of 1 mg/day (max. 6 mg/day)
- Reduce the doses by half (initial and incremental doses) in elderly patients and in patients with hepatic or renal impairment (max. 4 mg/day).

Duration
- *Acute psychosis*: minimum 3 months; *chronic psychosis*: minimum one year. The treatment should be discontinued gradually (over 4 weeks). If signs of relapse occur, increase the dose.
- *Manic episode*: 3 to 6 weeks

Contra-indications, adverse effects, precautions
- Do not administer to elderly patients with dementia (e.g. Alzheimer's disease).
- Administer with caution and monitor use in patients > 60 years and patients with Parkinson's disease, cardiac, hepatic or renal impairment.
- May cause: orthostatic hypotension, hyperprolactinaemia, sexual dysfunction, extrapyramidal syndrome, tachycardia, headache, nausea, agitation, anxiety, insomnia, drowsiness (inform patients that it may affect their capacity to drive/operate machinery); neuroleptic malignant syndrome (unexplained hyperthermia with neuromuscular disorders), rare but requiring immediate treatment discontinuation.
- In the event of extrapyramidal symptoms, combine with biperiden.
- Avoid or monitor combination with: fluoxetine, carbamazepine, rifampicin, furosemide, antihypertensives, CNS depressants (opioid analgesics, sedatives, H1 antihistamines, etc.).
- Avoid alcohol during treatment.
- *Pregnancy: re-evaluate whether the treatment is still necessary; if it is continued, haloperidol or chlorpromazine are in principle preferred as they are better known. However, if it is difficult to change treatment at the beginning of pregnancy or if pregnancy is already in second trimester, risperidone can be maintained. Observe the newborn infant the first few days (risk of hypertonia, tremors, sedation).*
- *Breast-feeding: no contra-indication*

Remarks
- Atypical antipsychotics such as risperidone are less likely to cause extra-pyramidal adverse effects than conventional antipsychotics.
- Risperidone is not included in the WHO list of essential medicines.
- *Storage: below 25°C*

RITONAVIR = RTV

Prescription under medical supervision

Therapeutic action
- Antiretroviral, HIV-1 and HIV-2 protease inhibitor

Indications
- Booster for protease inhibitors (atazanavir, darunavir, saquinavir, etc.) in HIV-1 or HIV-2 infection. Ritonavir should not be used alone.

Presentation
- 50 mg and 100 mg tablets
- 80 mg/ml oral solution, containing 43% alcohol (v/v)

Dosage
- Adult:
  - Tablet: 100 mg once daily or 200 mg/day in 2 divided doses, depending on the protease inhibitor co-administered
  - Oral solution: 1.25 ml once daily or 2.5 ml/day in 2 divided doses, depending on the protease inhibitor co-administered

Duration
- Depending on the efficacy and tolerance of ritonavir.

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe hepatic impairment.
- Adverse effects associated with the use of ritonavir as a booster are dependent on the other protease inhibitor.
- Ritonavir reduces the efficacy of oral contraceptives: use a non-hormonal contraception or injectable medroxyprogesterone or an oral contraceptive containing 50 µg ethinylestradiol per tablet.
- Administer with caution to patients with diabetes or haemophilia and, for oral solution, to patients with hepatic disease or epilepsy.
- *Pregnancy*: ***CONTRA-INDICATED*** *for oral solution; no contra-indication for tablets.*

Remarks
- Take with meals.
- Many fixed-dose combinations containing ritonavir are available.
- *Storage: below 25°C*
  Do not refrigerate or freeze the oral solution.

SALBUTAMOL = ALBUTEROL

Prescription under medical supervision

Therapeutic action
- Bronchodilator

Indications
- Treatment of persistent asthma not controlled by inhaled corticosteroids

Presentation
- 2 mg and 4 mg tablets
- 2 mg/5 ml syrup

Dosage
- Child from 2 to 6 years: 3 to 6 mg/day in 3 divided doses
- Child from 6 to 12 years: 6 mg/day in 3 divided doses
- Child over 12 years and adult: 6 to 12 mg/day in 3 divided doses

Duration
- According to clinical response

Contra-indications, adverse effects, precautions
- Administer with caution to patients with diabetes mellitus, hyperthyroidism, arrhythmia, angina, hypertension.
- May cause: headache, tremor, tachycardia; hypokalaemia, hyperglycaemia.
- Monitor combination with: furosemide, hydrochlorothiazide, corticosteroids, xanthines (increased risk of hypokalaemia).
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- The use of oral salbutamol for this indication should only be considered when administration of inhalated salbutamol is not feasible.
- Oral salbutamol is not very effective in children under 2 years.
- Oral salbutamol is not indicated in the management of acute asthma attack since its onset of action is within 30 minutes.
- *Storage: below 25°C* – 

SALBUTAMOL = ALBUTEROL aerosol

Prescription under medical supervision

Therapeutic action
- Short-acting bronchodilator

Indications
- Symptomatic treatment of asthma attack

Presentation
- Solution for inhalation in pressurised metered dose inhaler, 100 micrograms/puff

Dosage
Dosage depends on the severity of attack and patient's response.
For information :
- 2 to 4 puffs (up to 10 puffs depending on severity) every 10 to 30 minutes

Administration technique
- Shake the inhaler.
- Breathe out as completely as possible. Place the lips tightly around the mouthpiece. Inhale deeply while activating the inhaler. Hold breath 10 seconds before exhaling.
- Co-ordination between the hand and inhalation is very difficult in children under 6 years, elderly patients and patients with severe dyspnoea. Use a spacer to facilitate administration and improve the efficacy of treatment.

Contra-indications, adverse effects, precautions
- May cause: headache, tremor and tachycardia.
- In the event of bronchial infection, administer simultaneously with appropriate antibacterial treatment.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Clean the mouthpiece before and after each use.
- Do not pierce or incinerate used aerosol containers. Empty all residual gas, then bury.
- *Storage: below 25°C* – 

SALBUTAMOL = ALBUTEROL nebuliser solution

Prescription under medical supervision

Therapeutic action
- Short-acting bronchodilator

Indications
- Symptomatic treatment of severe acute bronchospasm, e.g. in severe asthma attack

Presentation and route of administration
- Solution for inhalation, in unit dose vial of 5 mg in 2.5 ml (2 mg/ml), to be administered via a nebuliser

Dosage and duration
- Child under 5 years or under 15 kg: 2.5 mg (1.25 ml)/nebulisation, to be repeated every 20 to 30 minutes if necessary
- Child over 5 years and adult: 2.5 to 5 mg (1.25 to 2.5 ml)/nebulisation, to be repeated every 20 to 30 minutes if necessary
- The nebuliser should always be driven by oxygen.

Contra-indications, adverse effects, precautions
- May cause: headache, tremor, tachycardia; hyperglycaemia and hypokalaemia (after large doses); worsening hypoxia if administered without oxygen.
- Never use nebuliser solution by the parenteral route.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Nebulised salbutamol should be reserved for severe asthma attacks when inhalation of oxygen is also required. Otherwise, salbutamol should be delivered via a metered-dose inhaler with a spacer: administration is easier and faster, the treatment is as effective, or even more effective, than with a nebuliser and causes fewer adverse effects.
- Volumes of nebuliser solution to be administered are insufficient to obtain efficient nebulisation in most nebulisers: dilute salbutamol solution with 0.9% NaCl to obtain a total volume of 4 ml in the reservoir of the nebuliser. The diluted solution is dispersed with oxygen at a flow rate of 5 to 8 litres/min. Stop the nebulisation when the reservoir is empty (± 10-15 minutes).
- Also comes in unit dose vials of 1.25 mg in 2.5 ml, 2.5 mg in 2.5 ml, and in vials of 50 mg in 10 ml.
- *Storage: below 25°C* – 

SPIRONOLACTONE

Prescription under medical supervision

Therapeutic action
– Potassium-sparing diuretic, antagonist of aldosterone

Indications
– Oedema associated with congestive heart failure, hepatic cirrhosis and nephrotic syndrome

Presentation
– 25 mg tablet

Dosage
– *Oedema in congestive heart failure*
  Adult: 100 mg/day (up to 200 mg/day in severe cases) then, when oedema is controlled, maintenance dose of 25 mg/day
– *Ascites in hepatic cirrhosis*
  Adult: 100 to 400 mg/day.
  When weight is stable, administer the lowest possible maintenance dose, in order to prevent adverse effects.
– *Oedema in nephrotic syndrome*
  Adult: 100 to 200 mg/day

The daily dose can be administered in 2 to 3 divided doses or once daily.

Duration
– According to clinical response; avoid prolonged use.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe renal impairment, anuria, hyperkalaemia > 5 mmol/l, hyponatraemia.
– Do not combine with potassium salts, potassium-sparing diuretics; lithium (risk of lithium toxicity).
– Avoid or closely monitor combination with angiotensin-converting enzyme inhibitors (risk of severe, potentially fatal hyperkalaemia), digoxin (risk of digoxin toxicity) and reduce dosages.
– May cause:
  • hyperkalaemia (especially in elderly or diabetics patients, patients with renal impairment or patients taking NSAIDs), hyponatraemia; metabolic acidosis (in patients with decompensated cirrhosis);
  • gynecomastia, metrorrhagia, impotence, amenorrhoea, gastrointestinal disturbances, headache, skin rash, drowsiness.
– Administer with caution in patients with hepatic or renal impairment or diabetes.
– Monitor regularly plasma-potassium levels.
– *Pregnancy: avoid, use only if clearly needed (risk of feminisation of foetus); spironolactone is not indicated in the treatment of pregnancy-related oedema.*
– *Breast-feeding: no contra-indication*

Remarks
– In children with oedema, the daily dose is 1 to 3 mg/kg/day.
– Spironolactone is also used for the diagnosis and treatment of primary hyperaldosteronism.
– *Storage: below 25°C* –

SULFADIAZINE

Prescription under medical supervision

Therapeutic action
- Sulfonamide antibacterial

Indications
- Treatment and secondary prophylaxis of toxoplasmosis in immunodeficient patients, in combination with pyrimethamine

Presentation
- 500 mg tablet

Dosage and duration
- *Treatment of toxoplasmosis*
  Adult: 4 to 6 g/day in 2 to 3 divided doses for 6 weeks minimum
- *Secondary prophylaxis of toxoplasmosis*
  Adult: 2 to 3 g/day in 2 divided doses, as long as necessary

Contra-indications, adverse effects, precautions
- Do not administer to sulfonamide-allergic patients; patients with severe renal or hepatic impairment.
- May cause:
  - gastrointestinal disturbances, renal disorders (crystalluria, etc.), photosensitivity, megaloblastic anaemia due to folinic acid deficiency; haemolytic anaemia in patients with G6PD deficiency;
  - allergic reactions (fever, rash, etc.) sometimes severe (Lyell's and Stevens-Johnson syndromes, haematological disorders, etc.). In these cases, stop treatment immediately.
- Adverse effects occur more frequently in patients with HIV infection.
- Monitor blood count if possible.
- Reduce the dose by half in patients with renal impairment.
- Do not combine with methotrexate and phenytoin.
- Administer calcium folinate systematically to prevent folinic acid deficiency.
- Drink a lot of liquid during treatment.
- *Pregnancy: no contra-indication. However, avoid using during the last month of pregnancy (risk of jaundice and haemolytic anaemia in the newborn infant).*
- *Breast-feeding: avoid if premature infant, jaundice, low-birth weight, infant under one month of age. If sulfadiazine is used, observe the infant for signs of jaundice.*

Remarks
- *Storage: below 25°C –* 

SULFADOXINE/PYRIMETHAMINE = SP

Prescription under medical supervision

Therapeutic action
- Antimalarial

Indications
- Treatment of uncomplicated falciparum malaria, in combination with artesunate
- Completion treatment following parenteral therapy for severe falciparum malaria, in combination with artesunate

Presentation
- Sulfadoxine 500 mg/pyrimethamine 25 mg co-formulated tablet

Dosage and duration
- Child and adult: 25 mg/kg sulfadoxine and 1.25 mg/kg pyrimethamine as a single dose

Age	2 months	1 year	7 years	13 years	Adult
500/25 mg tablet	½ tab	1 tab	2 tab	3 tab	

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to sulfonamides.
- May cause: gastrointestinal disturbances; allergic reactions, sometimes severe (toxic epidermal necrolysis and Stevens-Johnson syndrome); anaemia, leukopenia, agranulocytosis, thrombocytopenia, haemolytic anaemia in patients with G6PD deficiency.
- Do not use in combination with cotrimoxazole.
- Do not give folic acid on the same day SP is administered, or within 15 days thereafter.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- In stable transmission areas, intermittent preventive treatments can be given to pregnant women as of the 2nd trimester to reduce the consequences of malaria (anaemia, low birth weight, etc.). Check national recommendations.
- SP should not be used for malaria prophylaxis.
- *Storage: below 25°C* – 

THIAMINE = VITAMIN B1

Therapeutic action
– Vitamin

Indications
– Vitamin B1 deficiencies: beriberi, alcoholic neuritis

Presentation
– 50 mg tablet
Also comes in 10 mg and 25 mg tablets.

Dosage and duration
– *Infantile beriberi*
  10 mg once daily, until complete recovery (3 to 4 weeks)
– *Acute beriberi*
  150 mg/day in 3 divided doses for a few days, until symptoms improve, then 10 mg/day until complete recovery (several weeks)
– *Mild chronic deficiency*
  10 to 25 mg once daily

Contra-indications, adverse effects, precautions
– No contra-indication, or adverse effects with oral thiamine.
– *Pregnancy: no contra-indication*
– *Breast-feeding: no contra-indication*

Remarks
– In the treatment of severe cases, the use of injectable thiamine is justified to correct the disorder as rapidly as possible, but is no longer justified when symptoms have improved.
– Vitamin B1 deficiency often occurs in association with other vitamin B-complex deficiencies, especially in alcoholic patients.
– Thiamine is also called aneurine.
– *Storage: in airtight non-metallic container* – 

TINIDAZOLE

Prescription under medical supervision

Therapeutic action
- Antiprotozoal, antibacterial (group of nitroimidazoles)

Indications
- Amoebiasis, giardiasis, trichomoniasis
- Bacterial vaginitis, infections due to anaerobic bacteria (e.g. *Clostridium sp*, *Bacteroides sp*)

Presentation
- 500 mg tablet

Dosage and duration
- *Amoebiasis*
  Child: 50 mg/kg once daily, without exceeding 2 g/day
  Adult: 2 g once daily
  The treatment lasts 3 days in intestinal amoebiasis; 5 days in hepatic amoebiasis.
- *Giardiasis, trichomoniasis and bacterial vaginitis*
  Child: 50 mg/kg as a single dose, without exceeding 2 g
  Adult: 2 g as a single dose
  In the event of trichomoniasis, also treat sexual partner.
- *Infections due to anaerobic bacteria*
  Child over 12 years and adult: initially 2 g then 1 g once daily or in 2 divided doses
  According to indication, tinidazole may be used in combination with other antibacterials; treatment duration depends on indication.

Contra-indications, adverse effects, precautions
- Do not administer to patients with allergy to tinidazole or another nitroimidazole (metronidazole, secnidazole, etc.).
- May cause: gastrointestinal disturbances; rarely: allergic reactions, brownish urine, headache, dizziness. Risk of antabuse reaction when combined with alcohol.
- Administer with caution in patients taking oral anticoagulants (risk of haemorrhage), lithium, phenytoin (increased plasma concentrations of these drugs).
- *Pregnancy: no contra-indication; divide into smaller doses, avoid prolonged use.*
- *Breast-feeding: significantly excreted in milk (risk of gastrointestinal disturbances in breastfed infants); divide into smaller doses, avoid prolonged use.*

Remarks
- *Storage: below 25°C* – 

TRAMADOL

Prescription under medical supervision

Therapeutic action
- Opioid analgesic

Indications
- Moderate pain, alone or in combination with a non-opioid analgesic

Presentation
- 50 mg capsule
- 100 mg/ml oral solution (1 drop = 2.5 mg)

Dosage
- Child over 12 years and adult: 50 to 100 mg every 4 to 6 hours, without exceeding 400 mg/day

Duration
- According to clinical evolution; as short as possible. In the event of prolonged treatment, do not stop abruptly, reduce doses progressively.

Contra-indications, adverse effects, precautions
- Do not administer in the event of severe respiratory depression and to patients that risk seizures (e.g. epilepsy, head injury, meningitis).
- May cause:
  - dizziness, nausea, vomiting, drowsiness, dry mouth, sweating;
  - rarely: allergic reactions, seizures, confusion; withdrawal symptoms; respiratory depression in the event of overdosage.
- Do not combine with opioid analgesics, including codeine.
- Avoid combination with carbamazepine, fluoxetine, chlorpromazine, promethazine, clomipramine, haloperidol, digoxin.
- Reduce doses by half and administer every 12 hours in elderly patients and in patients with severe renal or hepatic impairment (risk of accumulation).
- *Pregnancy: no contra-indication. The neonate may develop withdrawal symptoms, respiratory depression and drowsiness in the event of prolonged administration of large doses at the end of the 3rd trimester. In this event, closely monitor the neonate.*
- *Breast-feeding: use with caution, for a short period (2-3 days), at the lowest effective dose. Monitor the mother and the neonate: in the event of excessive drowsiness, stop treatment.*

Remarks
- Tramadol is approximately 10 times less potent than morphine.
- In some countries, tramadol is on the list of narcotics: follow national regulations.
- Tramadol is not included in the WHO list of essential medicines.
- *Storage: below 25°C* –  – 

TRANEXAMIC acid

Prescription under medical supervision

Therapeutic action
- Antifibrinolytic

Indications
- Metrorrhagia (especially functional uterine bleeding) and menorrhagia

Presentation
- 500 mg tablet

Dosage
- Adult: 3 g/day in 3 divided doses (max. 4 g/day in 4 doses) during bleeding

Duration
- 3 to 5 days

Contra-indications, adverse effects, precautions
- Do not administer in patients with (or with history of) venous or arterial thromboembolic disease.
- Administer with caution in the event of haematuria of renal origin (risk of anuria).
- May cause: gastrointestinal disturbances; rarely, allergic reactions, seizures.
- *Pregnancy: this drug is not indicated in the event of bleeding during pregnancy.*
- *Breast-feeding: no contra-indication*

Remarks
- The treatment may given at each bleeding episode. In situations of repeated bleeding, it may be helpful to combine tranexamic acid with a non-steroidal anti-inflammatory drug (oral ibuprofen, 1200 to 2400 mg/daily maximum, to be divided in 3 doses for 3 to 5 days) and/or a long-term treatment with oral estroprogestogens or injectable progestogens.
- *Storage: below 25°C*

TRICLABENDAZOLE

Prescription under medical supervision

Therapeutic action
- Anthelminthic

Indications
- Fascioliasis (*Fasciola hepatica* and *Fasciola gigantica* infections)
- Paragominiasis

Presentation
- 250 mg tablet

Dosage and duration
- *Fascioliasis*
  Child and adult: 10 mg/kg as a single dose
- *Paragominiasis*
  Child and adult: 20 mg/kg in 2 divided doses

Contra-indications, adverse effects, precautions
- Do not administer to patients with hypersensitivity to triclabendazole or other benzimidazoles (albendazole, flubendazole, mebendazole, tiabendazole).
- May cause: abdominal pain, mild fever, headache, dizziness.
- *Pregnancy: no contra-indication*
- *Breast-feeding: no contra-indication*

Remarks
- Take tablets after meals.
- Due to its efficacy, good tolerance, and ease of administration, triclabendazole is the drug of choice for fascioliasis.
- Bithionol may be used as an alternative to triclabendazole in the treatment of fascioliasis: 30 mg/kg/day for 5 days.
- Unlike infections with other flukes, fascioliasis does not respond to praziquantel.
- *Storage: below 25°C* – 

VALPROIC acid = SODIUM VALPROATE

Prescription under medical supervision

Valproic acid should not be used during pregnancy and in women of childbearing age. The risk of foetal malformations is higher than with other antiepileptics.

Therapeutic action
- Antiepileptic

Indications
- Generalised and partial epilepsy

Presentation
- 200 mg and 500 mg enteric coated tablets

Dosage
- Child under 20 kg: 20 mg/kg/day in 2 divided doses
- Child over 20 kg: start with 400 mg (irrespective of weight) in 2 divided doses, then increase gradually until the individual optimal dose is reached, usually 20 to 30 mg/kg/day in 2 divided doses
- Adult: start with 600 mg/day in 2 divided doses, then increase by 200 mg every 3 days until the individual optimal dose is reached, usually 1 to 2 g/day in 2 divided doses

Duration
- Lifetime treatment

Contra-indications, adverse effects, precautions
- Do not administer:
  - to women of childbearing age. If the treatment is absolutely necessary and if there is no alternative, an effective contraception is required (intrauterine device);
  - to patients with pancreatitis, hepatic disease or history of hepatic disease.
- May cause:
  - increase in the frequency of seizures at the beginning of therapy, drowsiness, weight gain, amenorrhoea, gastrointestinal disturbances, extrapyramidal symptoms, behavioural disturbances, confusion, thrombocytopenia;
  - rarely: pancreatitis, hepatic disorders, severe allergic reactions (Lyell's and Stevens-Johnson syndromes), prolongation of bleeding time. In these cases, stop treatment.
- Monitor, if possible, liver transaminases and prothrombin time during first 3-6 months of therapy (risk of hepatitis).
- Reduce dosage in patients with renal impairment.
- Do not combine with mefloquine (increased risk of seizures).
- Monitor combination with: tricyclic antidepressants, other antiepileptics.
- If other antiepileptics have been prescribed, increase the dose of valproic acid gradually over 2 weeks and reduce the dose of other antiepileptics.
- *Pregnancy: do not start treatment during pregnancy (risk of neural tube defects; urogenital, limb and face malformations; psychomotor developmental disorders).*
  If treatment was started before pregnancy: replace valporic acid with a safer antiepileptic if possible. If there is no other alternative, do not stop valporic acid however administer the minimal effective dose and divide the daily dose. Monitor the newborn (risk of withdrawal syndrome and haemorrhagic disease, not related to vitamin K deficiency).
  The administration of folic acid during the first trimester may reduce the risk of neural tube defects.
- *Breast-feeding: no contra-indication*

Remarks
- Take with meals.
- Also comes in 100 mg crushable tablets and 200 mg/5 ml oral solution.
- *Storage: below 25°C* –  – 

ZIDOVUDINE = AZT = ZDV

Prescription under medical supervision

Therapeutic action
– Antiretroviral, HIV-1 and HIV-2 nucleoside reverse transcriptase inhibitor

Indications
– HIV-1 or HIV-2 infection, in combination with other antiretroviral drugs

Presentation
– 300 mg tablet
– 50 mg/5 ml oral solution

Dosage
– Premature infant: 3 mg/kg/day in 2 divided doses for the first 2 weeks after birth then 8 mg/kg/day in 2 divided doses
– Child under 4 weeks: 8 mg/kg/day in 2 divided doses
– Child from 4 weeks to 13 years: 360 to 480 mg/m^2/day in 2 divided doses
– Adult: 600 mg/day in 2 divided doses

Weight	10 mg/ml oral solution	300 mg tablet
5 to 6 kg	6 ml x 2	–
7 to 9 kg	8 ml x 2	–
10 to 14 kg	12 ml x 2	–
15 to 19 kg	17 ml x 2	–
20 to 24 kg	20 ml x 2	–
25 to 29 kg	25 ml x 2	1 tab x 2
30 to 39 kg	28 ml x 2	1 tab x 2
≥ 40 kg	–	1 tab x 2

Duration
– The duration of treatment depends on the efficacy and tolerance of zidovudine.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe haematological disorders (leukopenia, anaemia), to neonates with hyperbilirubinaemia or raised transaminases.
– May cause: haematological disorders (monitor CBC), gastrointestinal disturbances (nausea, diarrhoea, etc.), headache, myopathy, hepatic disorders, lactic acidosis. Stop taking zidovudine in the event of severe haematological disorders or hepatic disorders (hepatomegaly, raised transaminases).
– Reduce dosage in patients with severe renal or hepatic impairment.
– *Pregnancy: no contra-indication*

Remarks
– For prophylactic treatment to reduce mother-to-child transmission, check national recommendations.
– Many fixed-dose combinations containing zidovudine are available.
– *Storage: below 25°C* – 

ZIDOVUDINE/LAMIVUDINE = AZT/3TC

Prescription under medical supervision

Therapeutic action
– Combination of 2 antiretrovirals, HIV-1 and HIV-2 nucleoside reverse transcriptase inhibitors

Indications
– HIV-1 or HIV-2 infection, in combination with another antiretroviral drug

Presentation
– 60 mg AZT/30 mg 3TC tablet and dispersible tablet
– 300 mg AZT/150 mg tablet

Dosage
– Child less than 25 kg: see table below

Weight	60 mg AZT/30 mg 3TC tablet
3 to 5 kg	1 tab x 2
6 to 9 kg	1½ tab x 2
10 to 13 kg	2 tab x 2
14 to 19 kg	2½ tab x 2
20 to 24 kg	3 tab x 2

– Child ≥ 25 kg and adult: one 300 mg AZT/150 mg 3TC tablet twice daily

Duration
– Depending on the efficacy and tolerance of treatment.

Contra-indications, adverse effects, precautions
– Do not administer to patients with severe haematological disorders (neutropenia, anaemia).
– May cause:
  • adverse effects common to all 2 antiretrovirals: gastrointestinal disturbances;
  • adverse effects of zidovudine: see zidovudine;
  • adverse effects of lamivudine: see lamivudine.
– *Pregnancy: no contra-indication*

Remarks
– *Storage: below 25°C*

ZIDOVUDINE/LAMIVUDINE/NEVIRAPINE = AZT/3TC/NVP

Prescription under medical supervision

Therapeutic action
- Combination of 3 antiretrovirals

Indications
- HIV-1 infection

Presentation
- 60 mg AZT/30 mg 3TC/50 mg NVP tablet
- 300 mg AZT/150 mg 3TC/200 mg NVP tablet

Dosage
- Child less than 25 kg: see table below

Weight	60 mg AZT/30 mg 3TC/50 mg NVP tablet
3 to 5 kg	1 tab x 2
6 to 9 kg	1½ tab x 2
10 to 13 kg	2 tab x 2
14 to 19 kg	2½ tab x 2
20 to 24 kg	3 tab x 2

- Child ≥ 25 kg and adult: one 300 mg AZT/150 mg 3TC/200 mg NVP tablet twice daily

Duration
- Depending on the efficacy and tolerance of treatment.

Contra-indications, adverse effects, precautions
- Do not administer to patients with severe haematological disorders (neutropenia, anaemia), hepatic disorders or intolerance to nevirapine that led to discontinuation of treatment.
- May cause:
  - adverse effects common to all 3 antiretrovirals: gastrointestinal disturbances;
  - adverse effects of zidovudine: see zidovudine;
  - adverse effects of lamivudine: see lamivudine;
  - adverse effects of nevirapine: see nevirapine.
- Monitor if possible liver enzyme level (ALAT) during the first 2 months, then every 6 months. If the enzyme level reaches 5 times the normal level, stop nevirapine immediately.
- Nevirapine reduces the efficacy of oral contraceptives: use a non-hormonal contraception or injectable medroxyprogesterone or an oral contraceptive containing 50 µg ethinylestradiol per tablet.
- Do not combine with rifampicin.
- *Pregnancy: no contra-indication*

Remarks
- To improve tolerance of NVP, administer half doses for the first 14 days of treatment. Therefore, start triple therapy by using AZT/3TC co-formulations and nevirapine tablets. After the initial 14-day phase of treatment, use the co-formulation AZT/3TC/NVP.
- *Storage: below 25°C*

ZINC SULFATE

Therapeutic action
- Micronutrient

Indications
- Zinc supplementation in combination with oral rehydration therapy in the event of acute and/or persistent diarrhoea in children under 5 years

Presentation
- 20 mg scored and dispersible tablet, packed in a blister
- 20 mg/5 ml syrup

Dosage and duration
- Child under 6 months: 10 mg once daily (½ tablet or ½ teaspoon once daily) for 10 days
- Child from 6 months to 5 years: 20 mg once daily (1 tablet or 1 teaspoon once daily) for 10 days

Place the half-tablet or full tablet in a teaspoon, add a bit of water to dissolve it, and give the entire spoonful to the child.

Contra-indications, adverse effects, precautions
- No contra-indication.
- If the child vomits within 30 minutes after swallowing the tablet, re-administer the dose.
- Do not give simultaneously with ferrous salts, administer at least 2 hours apart.

Remarks
- Zinc sulfate is given in combination with oral rehydration solution in order to reduce the duration and severity of diarrhoea, as well as to prevent further occurrences in the 2 to 3 months after treatment. Zinc sulfate must never replace oral rehydration therapy which is essential (nor can it replace antibiotic therapy that may, in specific cases, be necessary).
- Zinc supplementation is not recommended in the event of diarrhoea in malnourished children taking therapeutic food (BP100®, Plumpy' nut®, milk F75® or F100®, etc.) as these foods already contain the required amount of zinc.
- *Storage: below 25°C* –  – 
  Tablets are packed in a blister. Leave tablets in blister until use. Once a tablet is removed from the blister, it must be dissolved and administered immediately.

Disclaimer

Important Notice: Medical Information Disclaimer

The information provided on this website, including the Therapeutic Index (TI) and Patient Information Leaflet (PIL) for various medicines, is for general informational purposes only. While we strive to ensure that the information presented is accurate and up-to-date, we make no guarantees regarding its completeness, accuracy, reliability, suitability, or availability. The TI values, PIL content, and related information may be subject to change based on ongoing research and regulatory updates.

Not a Substitute for Professional Medical Advice

The content on this website is not intended to substitute professional medical advice, diagnosis, or treatment. Always seek the guidance of your physician or other qualified healthcare providers with any questions you may have regarding a medical condition or medication. Do not disregard professional medical advice or delay in seeking it because of something you have read on this website.

No Medical or Legal Liability

We do not provide any warranties or guarantees regarding the medical accuracy or completeness of the information provided. The use of the information provided on this website is at your own risk. We shall not be held liable for any direct, indirect, incidental, consequential, or any other type of damages arising from the use of, or the inability to use, the information on this website, even if we have been advised of the possibility of such damages.

Consult Healthcare Professionals

For any medical concerns, treatment decisions, or questions about the appropriateness of a particular medication, always consult a licensed healthcare professional. The Therapeutic Index and Patient Information Leaflet should be interpreted and used only by qualified healthcare providers who are familiar with the specific context and circumstances of the patient.

Patient Information Leaflet (PIL)

The PILs provided on this website are intended to offer general information about the medication, including usage, dosage, side effects, and precautions. These leaflets are not exhaustive and may not include all possible information about the medication. For complete information, please refer to the PIL provided by the manufacturer and consult with a healthcare professional.

Changes to This Disclaimer

We reserve the right to modify this disclaimer at any time. Changes will be posted on this page and are effective immediately upon posting. It is your responsibility to review this disclaimer periodically for updates.
By using this website, you acknowledge that you have read, understood, and agreed to this disclaimer.

Contact Information

If you have any questions or concerns regarding this disclaimer, please contact us at [Your Contact Information].

THANK YOU

ANGAV
INDUSTRIA FARMACEUTICA, LDA