

Medicines Book

for Aboriginal and Torres Strait Islander Health Practitioners

Supporting clinical practice in remote and Indigenous communities

5th edition



RPHCM
Remote Primary Health Care Manuals



CENTRAL AUSTRALIAN
ABORIGINAL CONGRESS
ABORIGINAL CORPORATION



Alice Springs, 2022

Medicines Book for Aboriginal and Torres Strait Islander Health Practitioners

5th edition

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Preface

The *Medicines Book for Aboriginal and Torres Strait Islander Health Practitioners* covers medicines recommended in the *CARPA Standard Treatment Manual* and the *Women's Business Manual*, and other medicines commonly used in remote primary health care centres.

Remote Primary Health Care Manuals logo

The RPHCM logo, developed by Margie Lankin, tells this story:

The people out remote, where they use the manuals, are coming into their health service. They are being seen from one of the manuals ... desert rose, the colours of the petals. The people sitting around are people who use the manuals – men and women. People who are working for Indigenous health... doctors and nurses and health workers. Messages are being sent out to the community from the clinic, from the people, to come in to the clinic to be seen. Messages about better health outcomes. People are walking out with better plans, better health, better health outcomes.

About this manual

The fifth edition of the *Medicines Book for Aboriginal and Torres Strait Islander Health Practitioners (Medicines Book)* has been produced as part of the suite of Remote Primary Health Care Manuals, through a collaboration between the Central Australian Rural Practitioners Association, Central Australian Aboriginal Congress, CRANApplus and Flinders University. The other manuals in the suite are the *CARPA Standard Treatment Manual (CARPA STM)*, *Minymaku Kutju Tjukurpa Women's Business Manual (WBM)*, and the *Clinical Procedures Manual for remote and rural practice (CPM)*.

The *Medicines Book* does not stand alone, and does not claim to be fully comprehensive as it has been simplified for ease of use. It is intended to supplement other medicine reference books such as the *Australian Medicines Handbook (AMH)*, *Therapeutic Guidelines* and *MIMS*. Dosage and prescribing guidelines have not been included. Refer to the *CARPA STM*, *WBM*, or your medicine reference book for these.

Your input

Feedback is an essential component of keeping the manuals 'by the users for the users'. Please submit your suggestions and comments via the online feedback form at www.remotephcmmanuals.com.au

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Contributors

Thank you to the practitioners, from all over Australia, who volunteered their time and expertise to ensure the manual remains evidence-based, relevant, practical and user-friendly. More information about the review process and a list of the editorial committee members, project team members and the primary and secondary reviewers who contributed to the review of this edition can be found at <http://www.remotephcmmanuals.com.au/home.html>

Contents

Using the Medicines book.....	7
Cultural tips.....	8
Medicine (active ingredients) — alphabetical	9
Patient education	13
Tell the patient.....	13
Tell the patient about chronic conditions medicines.....	14
How the medicine monographs are set out	16
Different forms of medicines.....	19
Side effects.....	20
Interactions.....	20
What the pictures mean.....	21
Special patient groups.....	22
References to <i>Australian Medicines Handbook (AMH)</i>	23
6 steps to follow when supplying a medicine	24
Medicine monographs by classification (medicine group)	27
Allergy and anaphylaxis.....	28
Anaesthetics.....	34
Analgesics (pain).....	36
Antidotes and antivenoms.....	44
Anti-infectives (antibiotics, worm medicines).....	50
Blood and electrolytes.....	96
Cardiovascular (heart).....	114
Dermatological (skin).....	144
Ear, nose and throat.....	154
Endocrine (diabetes, thyroid, calcium regulation).....	164
Eyes.....	184
Gastrointestinal (stomach, intestines).....	204
Genitourinary.....	222
Immunomodulators (steroids).....	226
Musculoskeletal.....	230
Neurological.....	238
Obstetric and gynaecology (women's business).....	252
Psychotropics (mental health).....	270
Respiratory (lungs).....	286
Vaccines.....	298
Vitamins and minerals.....	300
Reference section	309
Warning stickers.....	310
Abbreviations.....	312
Glossary.....	314
Anatomy dictionary.....	319
Calculation medicine doses and drip rates.....	323
Index	325

Using the Medicines Book

The Medicines Book is designed to be used by clinicians, especially Aboriginal and Torres Strait Islander health practitioners (ATSIHPs) who

- May not be able to access or read other common medicine reference books
- Are able to supply and monitor medicines (eg under state or territory legislation)
- Want to share information on medicines with patients who have low levels of English literacy

How the manual is set out

- Medicines are grouped into chapter headings according to their use in the same way as in the Australian Medicines Handbook 23 (eg Analgesics, Eyes, Respiratory)
- Within each chapter medicines (active ingredients) are in alphabetical order
- A list of all the medicines in alphabetical order with page numbers is at the front of the manual

The following information is included for each medicine

- Active ingredient, and other medicines that belong in the same group
- Illnesses and conditions the medicine is used to treat
- Simple information about how the medicine works
- Common side effects, and serious side effects
- Warnings about the medicine including
 - Safety in pregnancy and breastfeeding
 - Cautions when the person has other medical problems
 - Important interactions with other medicines, drugs or foods
- Information to tell the person when supplying the medicine
- Patient checks that may need to be done.

Protocols in this manual have been checked against the Australian Medicines Handbook 2022.

Cultural tips

To be effective, health care must occur in a culturally safe/secure environment with practitioners who are culturally aware and competent.

- Learn all you can about the local culture
- Always be respectful, and carefully consider the following

Cultural beliefs

- Traditional concepts and understandings around health and healing remain strong in Indigenous communities
- Use of traditional healers and traditional medicine is common. It is very important to acknowledge, respect and listen to community members regarding their practices

Effective communication

- English can be a second or third language for Indigenous Australians — always ask if person would like an interpreter to assist
- Don't assume that conversations conducted in English have the same meaning for practitioner and the patient
- Hearing problems are common and can make communication difficult
- While efforts to learn the local language are usually appreciated, don't try to use a language learnt in another community
- Be aware of non-verbal body language and gestures — pointing, hand signals, eye contact. Meanings may differ between cultures

When asking questions

- Direct questions can be considered rude
- Only ask one question at a time and allow person time to consider it. Person may be thinking in their own language before responding
- Check that you have understood what the person has told you
- Person may bring along a relative or friend
- Avoid double negatives. Example: 'You don't do nothing like that, do you'
- Ready agreement can be a sign of misunderstanding, or courtesy
- Silence is often OK, give person plenty of time to answer. But remember that silence can also mean misunderstanding, or that practitioner is on culturally unsafe ground

Medicine (active ingredients) — alphabetical

A

Aciclovir.....	50
Acetazolamide.....	184
Adrenaline (epinephrine).....	28
Albendazole.....	52
Allopurinol.....	230
Amethocaine (tetracaine).....	200
Amiodarone.....	116
Amlodipine.....	124
Amoxicillin.....	78
Amoxicillin + clavulanic acid.....	78
Ampicillin.....	78
Anorectal.....	220
Antacids.....	204
Antivenoms.....	44
Apixaban.....	98
Aspirin.....	96
Aspirin + clopidogrel.....	96
Atenolol.....	122
Atorvastatin.....	140
Atropine.....	120
Azithromycin.....	54

B

Beclomethasone.....	286
Benzathine benzylpenicillin (Bicillin L-A).....	78
Benzotropine.....	238
Benzyl benzoate.....	144
Benzylpenicillin.....	78
Bisoprolol.....	122
Budesonide.....	286
Budesonide + formoterol (eformoterol).....	288

C

Calcitriol.....	164
Calcium carbonate.....	166
Calcium gluconate.....	166
Carbamazepine.....	240
Carvedilol.....	122
Cefaclor.....	56
Cefalexin (cephalexin).....	56
Ceftriaxone.....	56
Chloramphenicol.....	190
Ciclesonide.....	286
Ciprofloxacin.....	58
Ciprofloxacin (ears).....	156
Citalopram.....	282
Clindamycin.....	60
Clopidogrel.....	96
Colchicine.....	232
Crotamiton.....	144

D

Dabigatran.....	112
Darbepoetin.....	102
Desvenlafaxine.....	280
Dexamethasone (eyes).....	192
Dexamethasone (immunomodulator).....	226
Dexamethasone + framycetin + gramicidin.....	154
Diazepam.....	270
Dicloxacillin.....	78
Digoxin.....	128
Diltiazem.....	126
Dimeticone.....	146
Docusate (ears).....	158
Docusate (gastrointestinal).....	206
Docusate + senna (gastrointestinal).....	206
Doxycycline.....	62

Droperidol..... 272
 Dulaglutide..... 168

E

Enoxaparin..... 104
 Epinephrine (adrenaline)..... 28
 Ergometrine..... 256
 Ethambutol (TB)..... 84
 Etonogestrel..... 258
 Exenatide..... 168
 Eye lubricants..... 194

F

Famciclovir..... 50
 Felodipine..... 124
 Flucloxacillin..... 78
 Fluconazole..... 64
 Fluorescein..... 196
 Fluoxetine..... 282
 Fluticasone furoate + vilanterol..... 288
 Fluticasone propionate..... 286
 Fluticasone propionate
 + formoterol (eformoterol)..... 288
 Fluticasone propionate
 + salmeterol..... 288
 Fluvoxamine..... 282
 Folic acid..... 300
 Folic acid + iron..... 300
 Formoterol (eformoterol)..... 290
 Furosemide (frusemide)..... 130

G

Gentamicin..... 66
 Gliclazide..... 180
 Glimepiride..... 180
 Glucagon..... 172
 Glyceryl trinitrate..... 136

H

Haloperidol..... 272
 Hydralazine..... 132
 Hydrochlorothiazide + irbesartan..... 142
 Hydrocortisone (skin)..... 148
 Hydrocortisone (immunomodulator)
 226

I

Ibuprofen..... 234
 Imiquimod..... 150
 Immunisations..... 298
 Immunosuppressants..... 228
 Indapamide..... 142
 Indapamide + perindopril..... 142
 Indometacin..... 234
 Insulins (long, short, mixed)..... 174
 Iodine..... 302
 Ipratropium..... 292
 Irbesartan..... 118
 Irbesartan + hydrochlorothiazide..... 118
 Iron..... 304
 Isoniazid (TB)..... 84
 Isosorbide dinitrate..... 136
 Isosorbide mononitrate..... 136
 Ivermectin..... 68

J

K
 Ketotifen..... 186

L

Lercanidipine..... 124
 Levetiracetam..... 242
 Levodopa + benserazide..... 244
 Levodopa + carbidopa..... 244
 Levonorgestrel (emergency pill)
 254
 Levonorgestrel (mini pill)..... 268
 Levonorgestrel
 + ethinylloestradiol..... 252

Levothyroxine.....	182
Lidocaine (lignocaine).....	34
Lidocaine (lignocaine) + adrenaline (epinephrine).....	34
Lidocaine (lignocaine) + prilocaine.....	34
Linagliptin.....	168
Lincomycin.....	60
Liraglutide.....	168
Loperamide.....	208
Loratadine.....	30

M

Magnesium sulfate.....	260
Medroxyprogesterone.....	262
Metformin.....	176
Methyldopa.....	134
Metoclopramide.....	210
Metoprolol.....	122
Metronidazole.....	70
Miconazole.....	72
Midazolam.....	246
Mirtazapine.....	274
Misoprostol.....	264
Montelukast.....	294
Morphine.....	36

N

Naloxone.....	46
Nanocrystalline silver dressing.....	152
Naphazoline.....	198
Nebivolol.....	122
Nicotine.....	276
Nifedipine.....	124
Nitrofurantoin.....	74
Norethisterone.....	268
Nystatin.....	76

O

Olanzapine.....	278
Olopatadine.....	186
Omeprazole.....	214
Ondansetron.....	216
Oral rehydration salts.....	218
Oxybuprocaine.....	200
Oxycodone.....	36
Oxycodone + naloxone.....	36
Oxymetazoline.....	160
Oxytocin.....	266

P

Paliperidone.....	278
Paracetamol.....	38
Paracetamol + codeine.....	40
Paroxetine.....	282
Perindopril.....	114
Perindopril + amlodipine.....	114
Perindopril + indapamide.....	114
Permethrin.....	144
Phenoxymethylpenicillin.....	78
Phenylephrine.....	162
Phenytoin.....	248
Podophyllotoxin.....	150
Poloxamer.....	206
Prednisolone.....	226
Prednisolone + phenylephrine.....	192
Probenecid.....	80
Procaine benzylpenicillin (procaine penicillin).....	78
Procaine penicillin.....	78
Prochlorperazine.....	210
Promethazine.....	32
Pyrantel.....	82
Pyrazinamide (TB).....	84

Q

R

Ramipril.....	114
Ranitidine.....	212
Rifampicin (TB).....	84
Risperidone.....	278
Rivaroxaban.....	98
Rosuvastatin.....	140
Roxithromycin.....	54
Rubbing medicine.....	236

S

Salbutamol.....	296
Salmeterol.....	290
Saxagliptin.....	168
Sertraline.....	282
Sildenafil.....	222
Silver sulfadiazine.....	152
Simvastatin.....	140
Sitagliptin.....	168
Sodium bicarbonate solution.....	158
Spironolactone.....	138

T

Tadalafil.....	222
Telmisartan.....	118
Temazepam.....	270
Tenecteplase.....	106
Terbinafine.....	88
Terbutaline.....	296
Tetracaine (amethocaine).....	200
Thiamine.....	48
Timolol.....	202
Tiotropium.....	292
Tramadol.....	42
Triamcinolone + neomycin + nystatin + gramicidin.....	154
Tranexamic acid.....	108
Trimethoprim.....	90
Trimethoprim + sulfamethoxazole	90

U

Ulipristal.....	254
Urinary alkalinisers.....	224

V

Valaciclovir.....	50
Valproate.....	250
Vancomycin.....	92
Vardenafil.....	222
Varenicline.....	284
Venlafaxine.....	280
Verapamil.....	126
Vildagliptin.....	168
Vitamin K.....	110

W

Warfarin.....	112
---------------	-----

X

Xylometazoline.....	160
---------------------	-----

Y

Z

Zinc.....	306
-----------	-----

Patient education

Tell the patient

- **Everything they want to know about their medicines**

Contact pharmacist if there are any questions you can't answer. Use this book and show them pictures to help explain

- ▶ If person travelling — give them a list of their medicines and a copy of prescriptions with repeats so they can get them filled at other clinics



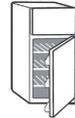
- **Medicines can be DANGEROUS (especially for children)**

Keep medicines in a safe dry place where kids can't see them or get to them



- **Medicines must be stored properly to work properly**

Always check packet to see how they should be stored — some must be kept in the fridge



- **Medicines have 'use by' dates**

Some medications like liquids or eye drops only last for 2–4 weeks after being opened. Always check packet to see if medicine is still in date and how long it will work after being opened. Write this on label



- **Bring all their medicines with them when they come to clinic or hospital**

Makes it easier to change their medicines and makes sure any old and out of date ones are destroyed safely

- **Some medicines may not be needed** if they exercise, eat well and try to keep themselves and their surroundings clean

- **Do not** share medicine with another person — it could harm them

- **Do not** take someone else's medicine — it could harm you

- **Do not** take medicine that is out of date

- **Do not** chew, cut or crush slow release tablets. Only cut tablets that have a line on them. Use a sharp knife on a piece of clean paper towel

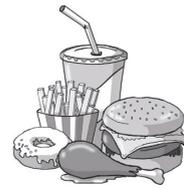
- **Do not** throw medicines in the bin — bring them back to clinic



Tell the patient about chronic disease medicines

Causes of chronic disease

- People (both Indigenous and non-Indigenous) have stopped being as active as they were before — less walking, running, hunting, or exercising in other ways
- People spend a lot of time sitting in front of televisions, computers, or games. Because humans are designed to move and be active, this makes us weak and unwell
- The way people eat can also make them unwell. Many people
 - ▶ Eat **more** than they need — not much energy is needed to sit for most of the day
 - ▶ Eat the wrong types of food — too much fat, sugar and salt, not enough fruit and vegetables
- Smoking, and drinking too much alcohol (grog) can make chronic diseases worse and cause illnesses of their own



Chronic conditions

- As a result of this modern lifestyle many people are overweight, have blood vessels blocked by fat and a weakened heart. They are likely to develop one or more chronic (long term) conditions
- Chronic conditions include problems with **high blood pressure (BP), high blood glucose (sugar), and fats in the blood (cholesterol)** that can speed up the blocking of arteries and damage your
 - ▶ Heart — leading to heart attacks
 - ▶ Brain — leading to stroke
 - ▶ Kidneys — leading to kidney trouble and dialysis
 - ▶ Eyes — leading to eye trouble and blindness
 - ▶ Feet — leading to infection and amputation



Chronic conditions medicines

- As well as a healthy lifestyle, medicine can help to bring high BP, blood glucose and blood fat levels down to a safe level

Early treatment = less damage

- Taking medicines can be hard, especially long-term medicines for chronic disease
- You may not feel any different when you take the medicine but it is working to reduce damage to your organs
- Some people will need to take medicines all their lives because of existing damage to arteries or kidneys, or other problems they were born with (congenital problems)
- More exercise, eating healthy food, not smoking and drinking in moderation may help reduce the need for medicines



Tell the patient

- Have regular check-ups
- Know your medicine and remember to take your medicine
- Medicines are only one part of looking after your health
- Have a healthy daily lifestyle



- ▶ Move more as part of your day, spend less time in sitting in front of screens



- ▶ Quit or cut down on smoking



- ▶ Eat a range of good food, and try not to eat more than you need



- ▶ Cut down on alcohol (grog)

How the medicine monographs are set out

There are 2 pages of information for each monograph

Australian Medicines Handbook (AMH) medicine classification.

Example: Amoxicillin is classified as

ANTI-INFECTIVE — Antibacterial — Penicillins

→ **CHAPTER** — Medicine use — Medicine group

Page 1

<p>Active ingredients (generic name)</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • ACTIVE INGREDIENT/S of the medicine • Pictures showing how the medicines may be given (eg tablets, injection) • Other medicines from the same drug group • Combinations: Medicines from this group that are with medicines from a different group (if any)
<p>What is it used for</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • The main reasons this medicine is prescribed
<p>How it works</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • An explanation of where and how the medicine works in the body
<p>Side effects</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • Lists the main side effects • Tell the patient about these, but also tell them not everyone will get side effects

Chapter — body system or type of condition

Australian Medicines Handbook (AMH) reference number.

Example: Amoxicillin is 5.1.8

AMH 2022 section number

Page 2

 <p>Warnings</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • Lists the problems or conditions that may make this medicine dangerous to the patient • Contact doctor if your patient has any of these conditions
	<p>Interactions</p> <ul style="list-style-type: none"> • Lists other medicines, drugs or foods this medicine should not be taken with • Contact doctor if your patient is taking anything on this list
 <p>Tell the patient</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • Lists the things you should tell the patient when giving out this medicine
	<p>Warning stickers</p> <ul style="list-style-type: none"> • Lists stickers used to remind patients of special instructions for this medicine (eg Take with food, Do not drive) — see Reference section for the stickers used in this manual
<p>Check</p>	<p>Information in this section</p> <ul style="list-style-type: none"> • Lists the things you need to check (eg blood tests, blood pressure)

Active ingredients, generic and brand names

- Every medicine has at least one **active ingredient** — the chemical that affects the body and makes the medicine work (eg paracetamol, aspirin). There are usually other (inactive) ingredients that control things like how it dissolves, how easy it is to swallow, or the colour
- **Make sure you know active ingredient/s of the medicine.** Name of active ingredient and its strength are on the medicine's label. Usually in small print, or it will say 'Each tablet contains', then list the active ingredient/s. If you are not sure check with the doctor or pharmacist
- **Combination medicines** have 2 or more **active ingredients**. This manual shows the active ingredients of combination medicines
- The term **generic name** — may refer to **active ingredient** (eg paracetamol) *OR* may refer to a less expensive brand
- Companies that make and sell medicines give them a **brand name**. There can be many brand names and the brand used by your clinic can change
 - ▶ *Example:* Paracetamol is called *Panadol, Panamax, Febridol,* and *Paralgin* by different manufacturers.

Finding active ingredient and its strength on medicine packet

The active ingredient can be written in more than one place. Many medicines look the same — check carefully that you have the right one

Brand name
(*Apo-amoxicillin*)

Active ingredient and strength/amount in each tablet
(amoxicillin 500mg)

Company that makes the medicine
(Apotex)

PRESCRIPTION ONLY MEDICINE
KEEP OUT OF REACH OF CHILDREN

APO-AMOXICILLIN
amoxicillin (as trihydrate)

Amoxicillin capsules
Each capsule contains 500 mg
amoxicillin (as trihydrate)
AUST R 208144

500 mg

20 CAPSULES

APOTEX

On combination medicine packet

Brand name ———→ **APO-AMOXYCILLIN/CLAVULANIC ACID 500/125**
(*Apo-amoxicillin/clavulanic acid*)

Active ingredients and strength/amount in each tablet
(There are 2: amoxicillin 500mg and clavulanic acid 125mg)

Company that makes the medicine ———→ **APOTEX**
(Apotex)

PRESCRIPTION ONLY MEDICINE
KEEP OUT OF REACH OF CHILDREN

Amoxicillin and Clavulanic acid tablets
Each tablet contains 500 mg amoxicillin as amoxicillin trihydrate and 125 mg clavulanic acid as potassium clavulanate

500 mg/125 mg
10 tablets

AUST R 153775

Different forms of medicines

Medicines come in different **forms** as well as different **strengths**

- Different forms include liquids, tablets, capsules, skin patches, injections, suppositories, wafers, depots
- There are also **slow-release** medicines
 - ▶ Medicine is released slowly and evenly into the body so the person can take it less often (eg only once a day)
 - ▶ Confusing slow-release and immediate-release forms of a medicine and giving the wrong form of the medicine can make the person very sick by increasing or decreasing the amount of medicine in their blood
 - ▶ **Do not** chew, crush or cut slow-release or coated tablets
- Types of slow-release medicines include
 - ▶ SR — sustained release or slow release
 - ▶ XR or ER — extended release
 - ▶ CD — controlled delivery
 - ▶ CR — controlled release
 - ▶ OROS — osmotic-controlled release oral delivery system
- Always check doctor's order against medicine to make sure it is the right form

Side effects

- Most medicines have more than one effect
 - Good (wanted) effects are why the medicine is prescribed
 - Bad (unwanted) effects are called side effects (or adverse effects)
- **This book does NOT show ALL side effects**, only the most common and serious. **Remember:** Not everyone gets side effects
- Side effects can sometimes take weeks to happen
- Mild side effects often go away after a few days
- **Serious** side effects must be reported to doctor so treatment can be changed
- **Dangerous** side effects can be a risk to person's life (eg anaphylaxis)
- If person has a new problem — ask if new medicine started
 - New problem may be **side effect** *OR* may be new problem from disease
 - **Always tell doctor about it**

Record all side effects from medicines in file notes so other ATSIHPs, doctors or nurses know for next time

Interactions

- If a medicine is taken with another medicine, drug (including alcohol and tobacco) or certain foods — the medicine may not work properly *OR* it may become too strong (this can be dangerous). This is called an **interaction**
- **Always check** what other drugs person is taking and the interaction list
 - If there could be an interaction — **always check with doctor**
- If person needs to take 2 medicines that interact — they will be carefully monitored by doctor
- **This book does NOT list ALL interactions**, only the most common and serious

For more information

- **Contact doctor or pharmacist**
- Look in other medicine reference books — *Australian Medicines Handbook, MIMS*
- Call Medicines Line on **1300 633 424** (1300 MEDICINE)

What the pictures mean

The pictures make it easier to explain things to your patients. Make sure you know what the following pictures mean.



Caution or warning symbol — you will need to pay special attention. This could be a serious situation — a potential emergency



Caution or warning symbol and phone — this could be a serious or risky situation — **always get help**



Triple whammy — dangerous combination of 3 common medicines, can cause kidney failure:
ACE inhibitor (page 114)/ARB (page 90)+ diuretic +NSAID (page 118)



Allergy/trouble breathing — could be an allergic reaction that affects person's breathing



Put tablet under tongue (sublingual) or inside cheek (buccal). Do not swallow tablet



Take all the tablets — remind person that medicine can't work properly or illness may come back if medicine is not finished



Slow-release medicine — medicine releases slowly and evenly into body, so it doesn't need to be taken as often. See Different forms of medicines (page 19)



Eye drops and eye ointments — return these to clinic 1 month after opening

Special patient groups

These pictures are to remind you that these people may need smaller doses of medicine, or should not take this medicine

Pregnant



- **Always** ask a woman of childbearing age if she is or could be pregnant — do pregnancy test if not sure
 - Most medicines taken by a pregnant woman can easily pass from her blood stream through the placenta and into the baby and may harm the baby
 - Every medicine is put into a category (A, B, C, or D) based on how dangerous it is to the baby. Lowest risk is A, high risk are D, **really dangerous** ones are X
 - This picture in the *Warnings* section lets you know medicine is category **C, D** or **X** and could seriously harm the baby
 - **Always** tell doctor or pharmacist if woman is pregnant or planning to become pregnant. Some medicines can be stopped or changed but others may be needed to care for the mother's health. The doctor will assess the risks and talk with the woman about them
-

Breastfeeding



- Some drugs and medicines can stop the mother making milk, or pass through the mother's milk and harm the baby or stop the baby sucking
 - This picture in the *Warnings* section lets you know this medicine should be used with caution by women who are breastfeeding
-

Babies and children



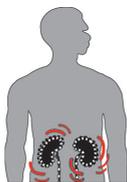
- Babies and children are not only smaller than adults but are growing and constantly changing. This affects how medicines are absorbed and eliminated from their bodies
 - **Always** weigh children and check doses carefully
-

Old people



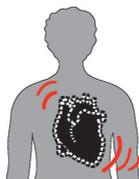
- Old people are more likely to suffer from side effects, medicine interactions and overdose because they
 - ▶ Can't break down and eliminate medicines as well as younger people
 - ▶ Are more sensitive to medicines
 - ▶ Are usually taking more than 1 medicine at a time
- Remember that old people
 - ▶ Are usually prescribed the smallest possible dose
 - ▶ May have trouble swallowing medicine. Check if OK to break or crush tablets
 - ▶ May need help remembering to take medicines — check if they need a dose aid, or if they have a carer who can help

Kidney trouble



- Indigenous people are more likely to have kidney trouble
- If patient has kidney trouble or kidney failure they usually need lower doses of medicines (or can't take some medicines) because their kidneys can't break down and remove medicine from their bodies

Other trouble or illnesses the patient may already have



- Shown by picture with red lines around body part affected (eg liver trouble, kidney trouble, heart trouble)
- These pictures mean that the medicine can make these problems worse
- Also see Anatomy dictionary (page 319)

References to *Australian Medicines Handbook (AMH)*

- Each medicine protocol in this manual includes an *AMH* reference number
- *AMH* is a standard Australian reference book for medicines. All clinics should have the current edition
- *AMH* is divided into chapters according to the body system or type of condition the medicine treats (eg cardiovascular system or allergies), then medicine use, medicine group, and active ingredient

For example

Amoxicillin is found in ***AMH* Section 5.1.8**

- **5** is the chapter (Anti-infectives)
- **1** is the medicine use (Antibacterial)
- **8** is the medicine group (Penicillins)
- Active ingredient is Amoxicillin

6 steps to follow when supplying a medicine

STEP 1 — Get the story

Use assessment and examination procedure such as SODA–F or SOAPF

STEP 2 — Follow the RIGHTS

• **Make sure you have the RIGHT patient and the RIGHT set of records**

- ▶ Ask person's name, date of birth, bush name, next of kin
- ▶ Check person's name and the date on the prescription

RIGHT medicine

- Check name and spelling of medicine against prescription
- Check use-by/expiry date on package
- Is it safe for this person
 - ALWAYS ask about** allergies, pregnancy, breastfeeding, other medical problems (eg kidney trouble), other medicines including over the counter and bush medicines
- Could it interact with other medicines the person is taking
- Is it in *CARPA STM* or *WBM*
- Look up in a reference manual (eg *AMH*, *Medicines Book*). What is it, how does it work, what is it used for
- Am I allowed to give the medicine or do I need to contact the doctor or pharmacist

RIGHT dose

- Check dose on prescription and in a reference manual (eg *CARPA STM*, *WBM*, *AMH*)
- Check strength — medicine can be packaged in different strengths and forms
- Measure dose carefully using proper equipment
- If dose is by weight — check person's weight. **Always** weigh children
- Watch and help parent/carer give first dose to children

RIGHT route

- Check how to give (administer) medicine
 - ▶ Oral — tablets, syrups, sublingual, buccal
 - ▶ Injection — IM, IV, subcut
 - ▶ On the skin — transdermal, topical

RIGHT time

- Check how and when medicine should be taken — night, morning, with food, on empty stomach
 - Use times that are meaningful to the person

RIGHT documentation

- Record medicine administered/supplied in file notes. Include active ingredient, dose, frequency, quantity supplied (eg dicloxacillin 500mg 4 times a day [qid], 24 caps)

RIGHT to refuse

- Person may not want to take medicine you give them
- Make sure person knows reason for the medicine so they can make an informed decision
- If person doesn't want to take medicine — try to find out why, a different medicine may be appropriate
- If person still doesn't want to take medicine — **always** document this

STEP 3 — Label the medicine

See example of completed medicine label — Figure 1.1

Keep out of reach of children		
Active ingredient: Furosemide (frusemide) 40 mg tablets		
Brand name: Urex		
Take 1 tablet in the morning		
James Douglas	12/04/23	
100 tablets	Dr B Cooper	
Expiry date: 09/2023	Ref# 136891 ADK	\$0.00
Hospital Pharmacy 6 Gap Road, Alice Springs NT 0870		

Figure 1.1

- Written in red on white background — **KEEP OUT OF REACH OF CHILDREN**
- Name (active ingredient) of medicine
- Strength (eg microgram, mg, g) and form (eg liquid, tablet, capsule)
- Total number of tablets or amount of liquid in package
- How to take it. Dose and number of times a day — 'Take 2 tablets 3 times a day'
- Name of patient
- Name, address and phone number of clinic
- Your name or initials

- Date you gave out medicine
- Medicine use-by/expiry date — take from original packet
- Prescription reference number (if your clinic uses these)
- Special directions — ‘Take with food’, ‘Keep in fridge’
 - Use warning stickers (page 310) if your dispensary has them
- Use medicine time stickers for people with poor English or eyesight
 - Morning/evening — Figure 1.2
 - Middle of the day — Figure 1.3
 - Night time, before bed — Figure 1.4



Figure 1.2

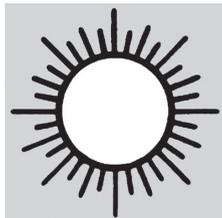


Figure 1.3



Figure 1.4

STEP 4 — Check what you have done and write in file notes

STEP 5 — Before giving medicine make sure person knows

- Why they are taking the medicine
- Possible side effects and what to do about them
 - Explain common side effects and side effects that are rare but important
- Important messages from Tell the patient (page 13)
- When and how to take it
 - Does it need to be taken with or without food
 - Use times that have meaning for the person
- How to store it (eg in fridge, away from children)

- Give clear instructions in best language for person
- Ask person to repeat what you told them to make sure they understand
- Give instructions in writing and pictures. Written instructions for all medicines are a legal requirement

STEP 6 — Check before finishing

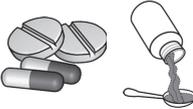
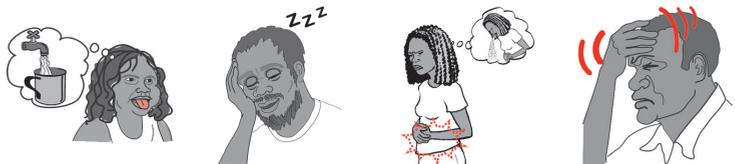
- Are tests needed (eg blood tests)
- Does person need to come back to clinic, when

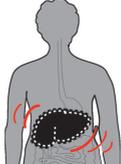
Medicine monographs — by classification

Allergy and anaphylaxis.....	28
Anaesthetics.....	34
Analgesics (pain).....	36
Antidotes and antivenoms.....	44
Anti-infectives (antibiotics, worm medicines).....	50
Blood and electrolytes.....	96
Cardiovascular (heart).....	114
Dermatological (skin).....	144
Ear, nose and throat.....	154
Endocrine (diabetes, thyroid, calcium regulation).....	164
Eyes.....	184
Gastrointestinal (stomach, intestines).....	204
Genitourinary.....	222
Immunomodulators (steroids).....	226
Musculoskeletal.....	230
Neurological.....	238
Obstetric and gynaecology (women’s business).....	252
Psychotropics (mental health).....	270
Respiratory (lungs).....	286
Vaccines.....	298
Vitamins and minerals.....	300

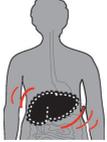
<p>Active ingredients (generic names)</p>	<p>ADRENALINE (EPINEPHRINE) a-dren-a-lin [ep-in-ef-rin])</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anaphylaxis — severe allergic reaction • Cardiac arrest — when heart stops • Shock
<p>How it works</p>	<ul style="list-style-type: none"> • The body makes its own adrenaline to deal with allergy and shock • Extra adrenaline from outside the body (epinephrine) is sometimes needed quickly to stop anaphylaxis (severe allergic reaction), or to stimulate the heart
<p>Side effects</p>	 <p>Headache</p>  <p>Tremor</p>  <p>Dizzy</p>

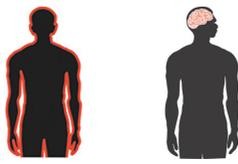
 <p>Warnings</p>	 <p>Do not refrigerate. Keep in the dark and below 25°C – but not in fridge</p>  <p>Urgent medical consult (may need another dose)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take adrenaline (epinephrine) self-injecting pen with you everywhere you go. On hot days, put in esky but not in fridge • Be sure anyone who may need to give you adrenaline knows how and when to give it • Another dose may be needed within 5 minutes • Bring adrenaline (epinephrine) self-injecting pen back to clinic when it reaches its use-by/expiry date  <p>Go to clinic straight away after using self-injecting pen. You may need another injection</p>
<p>Check</p>	<ul style="list-style-type: none"> • Note use-by/expiry date of adrenaline (epinephrine) self-injecting pen — make sure you will have stock to replace it

<p>Active ingredients (generic names)</p>	<p>LORATADINE (lor-at-a-deen)</p>  <p>Other low sedating antihistamines Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Cetirizine • Fexofenadine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Allergic reactions (eg hayfever) • Itchy eyes (eg fly bite) • Itchy rash (eg chickenpox)
<p>How it works</p>	<ul style="list-style-type: none"> • Allergic reactions are caused by release of a chemical messenger (neurotransmitter) called histamine • Antihistamines reduce the body's response to allergy by blocking histamine receptors
<p>Side effects</p>	 <p>Dry mouth Sleepy Nausea Headache</p>

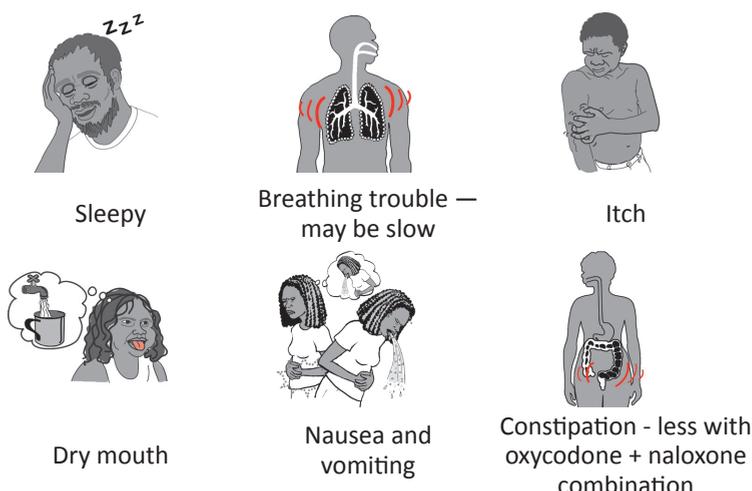
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Children under 2 years</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Medical consult if needed for more than a short time (over a week)</p> </div>
<p>Tell the patient</p> 	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — will make you more sleepy</p> </div> <div style="text-align: center;">  <p>Return to clinic if needed for more than a short time</p> </div> </div>
<p>Check</p>	<p>Anti-histamines are stopped 4 days before allergy skin-prick testing</p>

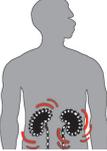
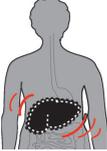
<p>Active ingredients (generic names)</p>	<p>PROMETHAZINE (pro-meth-a-zeen)</p>  <p>Other sedating antihistamines Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Alimemazine • Cyclizine • Cyproheptadine • Dexchlorpheniramine • Diphenhydramine • Doxylamine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Allergic reactions (eg hayfever, itch, rash) • Itchy eyes (eg fly bite) • Motion sickness (sea or car travel) • Nausea and vomiting • Sedation (eg penetrating eye injury)
<p>How it works</p>	<ul style="list-style-type: none"> • Allergic reactions are caused by release of a chemical messenger (neurotransmitter) called histamine • Antihistamines reduce the body's response to allergy by blocking histamine receptors • Promethazine also blocks other receptors to control nausea and prevent vomiting
<p>Side effects</p>	 <p>Neuroleptic malignancy syndrome — life threatening reaction presenting with mental status change, rigidity, fever, and increase heart rate, BP and breathing</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Children under 2 years</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Epilepsy (fits)</p> </div> <div style="text-align: center;">  <p>Breathing trouble</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than a short time (over a week)</p> </div> </div>
<p>Tell the patient</p> 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — will make you more sleepy</p> </div> <div style="text-align: center;">  <p>Return to clinic if needed for more than a short time</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 1</p> <ul style="list-style-type: none"> • Give by deep IM injection • Avoid IV use • Do not give SC • May cause tissue necrosis — stop injection if there is burning, swelling or pain at injection site • Anti-histamines are stopped 4 days before allergy skin-prick testing

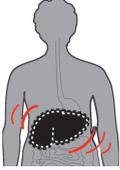
<p>Active ingredients (generic names)</p>	<p>LIDOCAINE (LIGNOCAINE) (li-do-cane) LIDOCAINE (LIGNOCAINE) + ADRENALINE (EPINEPHRINE) (li-do-cane + a-dren-a-lin [ep-in-ef-rin]) LIDOCAINE (LIGNOCAINE) + PRILOCAINE (li-do-cane + pril-o-cane)</p>  <p>Other local anaesthetics Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Bupivacaine • Cocaine • Prilocaine • Ropivacaine • Tetracaine (amethocaine) • Levobupivacaine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Local anaesthetic for closing a wound • Acute heart arrhythmias • Insect in ear • Lessen pain of IM injections • Stop bleeding + adrenaline (epinephrine) — head injury, nose bleed • Stop pain from <ul style="list-style-type: none"> ▶ Bite or sting — stonefish, stingray ▶ Episiotomy — cutting, repairing ▶ Ulcers (gel) — genital herpes (<i>CARPA STM, WBM</i>), mouth ulcers ▶ Wound management — cleaning <p>Note: Can use cream or gel on skin or in mouth but won't work as well as injection.</p>
<p>How it works</p>	<ul style="list-style-type: none"> • Stops pain by blocking transfer of pain messages from skin to brain 
<p>Side effects</p>	 <p>Rash</p>

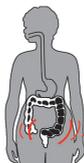
 <p>Warnings</p>	<ul style="list-style-type: none"> • Allergic reaction to local anaesthetics (ask patient/carer) • Do not use adrenaline (epinephrine) containing preparation in fingers, toes, nose, or ears — can cause ischaemic necrosis  <p>Medical consult if you need to give more than once</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Injections may sting a little at first • Apply patches to dry, non-irritated skin in the painful area • If oral liquid or gel is used, avoid food and drink for 1 hour after application • Rinse oral liquid or gel in the mouth
<p>Check</p>	<ul style="list-style-type: none"> • Lidocaine (lignocaine) + prilocaine applied as patch or cream <ul style="list-style-type: none"> ▶ Apply to intact and clean skin ▶ Cover cream with airtight (occlusive) dressing, leave on for 30 minutes before procedure ▶ Effect lasts up to 1–2 hours

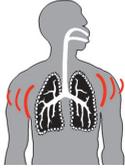
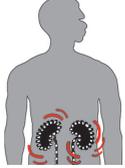
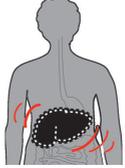
<p>Active ingredients (generic names)</p>	<p>MORPHINE (mor-feen) OXYCODONE (ox-i-co-don) OXYCODONE + NALOXONE SR (ox-i-co-don + nah-lox-own)</p>  <p>Other opioid analgesics Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Buprenorphine • Codeine • Fentanyl • Hydromorphone • Methadone • Pethidine • Tapentadol • Tramadol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain relief <ul style="list-style-type: none"> ▶ Strong acute pain ▶ Palliative care ▶ Severe dental pain ▶ Chronic pain
<p>How it works</p>	<p>Works in the brain and nerve endings to reduce strong pain</p> 
<p>Side effects</p>	 <p>Sleepy</p> <p>Breathing trouble — may be slow</p> <p>Itch</p> <p>Dry mouth</p> <p>Nausea and vomiting</p> <p>Constipation - less with oxycodone + naloxone combination</p>

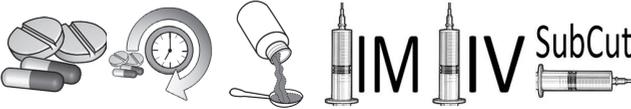
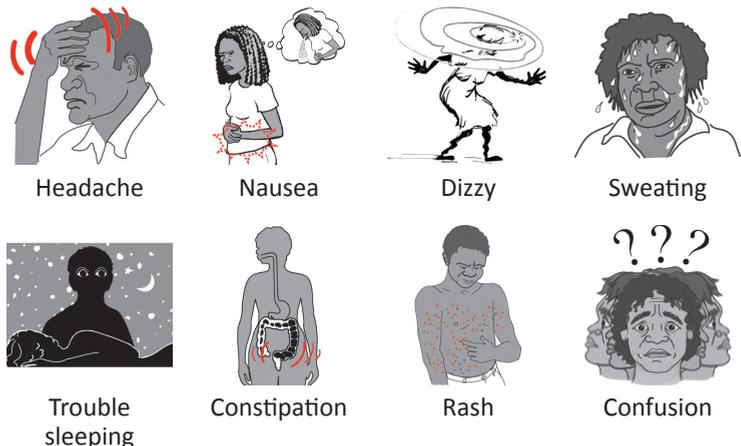
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Breathing trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Low BP (hypotension) (use with care if low BP or shock)</p> </div> </div> <div style="margin-top: 20px; text-align: center;">  <p>Old people (use lower dose)</p> </div> <div style="margin-top: 20px; text-align: center;">  <p>Medical consult to consider supply of naloxone for patients on long term or high dose opiate pain medicines</p> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Slow-release tablets or capsules must be swallowed whole • Medicine causes constipation, may need laxatives with long-term use • Medicine causes dry mouth with long-term use, may need care of mouth and teeth <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Drink lots of water — helps stop constipation</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 1, A (slow-release tablets)</p> <ul style="list-style-type: none"> • Some medicines have immediate release and slow-release tablets. Make sure you have the right one • Make sure they are using patches properly • Double check dose and sign register before giving

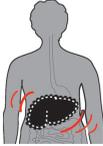
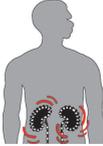
<p>Active ingredients (generic names)</p>	<p>PARACETAMOL (para-ceet-a-mol)</p>  <p>Paracetamol combinations not included in this monograph — see individual monograph for information:</p> <ul style="list-style-type: none"> • Paracetamol + codeine • Paracetamol + ibuprofen <p>Paracetamol is in lots of commonly available mixtures and tablets, alone or in combination.</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Mild to moderate pain relief • Fever • Chronic pain
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces pain by blocking some pain pathways • Lowers fever by reducing production of prostaglandins (hormone-like substances) • Can be combined with stronger pain medicines (analgesics) — so less of the stronger pain medicine is needed 
<p>Side effects</p>	 <p>Nausea and vomiting</p>  <p>Diarrhoea</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not give tablets closer together than 4 hours for regular tablets or 6 hours for slow release tablets (can cause liver damage)    <p>Medical consult if needed for more than a few days for adults or 48 hours for children</p> <p>Liver trouble</p> <p>Emergency if a lot of tablets taken at once (overdose) — call doctor or ambulance straight away</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Make sure children are given correct dose <ul style="list-style-type: none"> ▶ Children’s paracetamol comes in different strengths ▶ Use specially marked medicine cup or dropper • Taking more than 6 slow-release or 8 regular tablets containing paracetamol in one day can damage your liver <ul style="list-style-type: none"> ▶ If taking paracetamol for pain or fever — make sure there is no paracetamol in other medicines you are taking (eg cold medicines, osteoarthritis medicines)  <p>Return to clinic if needed for more than a few days for adults or 48 hours for children OR you take too much</p>
<p>Check</p>	<p>Warning stickers (page 310): 19a, A (slow-release tablets)</p> <ul style="list-style-type: none"> • Children’s paracetamol comes in different strengths — check the dose carefully • Do person’s other medicines contain paracetamol <i>OR</i> dosing aid contains paracetamol • If also taking warfarin — monitor INR and decrease warfarin dose if needed

<p>Active ingredients (generic names)</p>	<p>PARACETAMOL + CODEINE 30mg (para-ceet-a-mol + co-dean) PARACETAMOL + CODEINE 15mg PARACETAMOL + CODEINE 8mg</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain relief — moderate to strong acute pain <ul style="list-style-type: none"> ▸ May be in combination with other pain medicines
<p>How it works</p>	<ul style="list-style-type: none"> • 2 different medicines working together in brain and nerve endings to lessen pain 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Sleepy</p> </div> <div style="text-align: center;">  <p>Breathing trouble — may be slow</p> </div> <div style="text-align: center;">  <p>Vomiting</p> </div> <div style="text-align: center;">  <p>Constipation</p> </div> </div>

 <p>Warnings</p>	 <p>Breathing trouble</p>  <p>Kidney trouble</p>  <p>Liver trouble</p>  <p>Children under 12 years</p>  <p>Medical consult if needed for more than 7 days</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Taking more than 6 slow-release or 8 regular tablets containing paracetamol in one day can damage your liver <ul style="list-style-type: none"> ▶ If taking paracetamol-codeine for pain — make sure there is no paracetamol in other medicines you are taking (eg cold medicines, osteoarthritis medicines) • Medicine causes constipation, may need laxatives with long term use  <p>Do not drive or operate machinery if sleepy</p>  <p>Drink lots of water — helps stop constipation</p>  <p>Do not drink alcohol (grog) (medicine increases the effects)</p>  <p>Return to clinic if needed for more than a short time</p>
	<p>Warning stickers (page 310): 1 (30mg codeine), 19a</p>
<p>Check</p>	<ul style="list-style-type: none"> • Do the person's other medicines contain paracetamol • Remember to sign the drug register • If also taking warfarin — monitor INR and decrease warfarin dose if needed

<p>Active ingredients (generic names)</p>	<p>TRAMADOL (tram-a-dol)</p>  <p>Other opioid analgesics Not included in this monograph — see individual monographs or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Buprenorphine • Codeine • Fentanyl • Hydromorphone • Methadone • Morphine • Oxycodone • Pethidine • Tapentadol <p>Opioid combinations Not included in this monograph — see <i>AMH</i> for more information:</p> <ul style="list-style-type: none"> • Tramadol + paracetamol (<i>Zaldiar</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain relief <ul style="list-style-type: none"> ▶ Moderate to severe acute pain ▶ Chronic pain (slow-release formulations)
<p>How it works</p>	<ul style="list-style-type: none"> • Works in brain and nerve endings to reduce moderate to strong pain 
<p>Side effects</p>	 <p>Headache Nausea Dizzy Sweating</p> <p>Trouble sleeping Constipation Rash Confusion</p>

 <p>Warnings</p>	 <p>Epilepsy (fits)</p>  <p>Liver trouble</p>  <p>Pregnant</p>  <p>Kidney trouble</p>  <p>Old people</p>  <p>Breathing trouble</p>  <p>Children under 12 years</p>
<p>Interactions — Do not use together without medical consult</p> <p>TRAMADOL with</p> <ul style="list-style-type: none"> • Antidepressants • Carbamazepine • Ondansetron • Some opioids (eg pethidine, methadone) 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Slow-release tablets must be swallowed whole • Medicine causes constipation, may need laxatives with long-term use  <p>Drink lots of water — helps stop constipation</p>  <p>Do not drink alcohol (grog)</p>  <p>Do not drive or operate machinery if sleepy</p>
<p>Warning stickers (page 310): 1, 5, A (slow-release)</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Slow-release treatments are 12 hour — check you have right one • Remember to sign the drug register • If also using warfarin — monitor INR and decrease warfarin dose if needed

<p>Active ingredients (generic names)</p>	<p>ANTIVENOMS (an-te-ven-oms)</p>  <p>Most antivenoms are only available in hospitals.</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Life threatening bites and stings <ul style="list-style-type: none"> ▶ Box jellyfish ▶ Snakes and sea snakes ▶ Stonefish ▶ Red back spider 
<p>How it works</p>	<ul style="list-style-type: none"> • Antivenom binds to venom and makes it inactive. This reduces chance of dying from venomous bite <ul style="list-style-type: none"> ▶ Antivenom is usually specific to the type of venomous animal
<p>Side effects</p>	<ul style="list-style-type: none"> • Serum sickness • Polyarthritis  <p>High fever</p>  <p>Headache</p>  <p>Dizzy when standing up</p>  <p>Rash</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Most antivenoms given in hospital due to risk of anaphylaxis  <p>Anaphylaxis — severe allergic reaction (rash, low BP, trouble breathing)</p>
<p>Tell the patient</p> 	 <p>Return to clinic straight away if you get fever, rash, and sore muscles (serum sickness), up to 2 weeks later</p>
<p>Check</p>	<ul style="list-style-type: none"> • Early recognition of serum sickness • Always have anaphylaxis kit with adrenaline (epinephrine) ready when giving antivenom

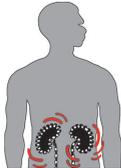
<p>Active ingredients (generic names)</p>	<p>NALOXONE (nah-lox-own)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Reversing the action of too much opioid medicine <ul style="list-style-type: none"> ▸ Morphine over-sedation ▸ Heroin overdose
<p>How it works</p>	<ul style="list-style-type: none"> • Reverses the action of opioid medicines (eg morphine) by attaching to and blocking the parts of the brain (receptors) where opioids work 
<p>Side effects</p>	<ul style="list-style-type: none"> • Agitation  <p>Fast pulse (heart rate)</p>  <p>Anxiety (worry)</p>  <p>Confusion (if dependent on opioids)</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Need to repeat dose until person alert and responsive • Long-acting medicines (eg methadone, or slow-release tablets) — may need longer observation period  <p>Urgent medical consult</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May need more than 1 dose
<p>Check</p>	<ul style="list-style-type: none"> • Make sure oxygen and ventilation are available to support person until naloxone works • Watch person for at least 2 hours — effects of opioid may return as naloxone wears off. May need to give another dose

<p>Active ingredients (generic names)</p>	<p>THIAMINE (thigh-a-min)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Low vitamin B1 comes from drinking too much alcohol, not eating enough breads or grainy foods, extended fasting or reduced absorption of nutrients from food • Replacing lost thiamine <ul style="list-style-type: none"> ▸ Alcohol withdrawal ▸ Before glucose infusion • Providing missing thiamine for people who don't get enough vitamin B in their diet — usually not eating enough bread, cereal or grains
<p>How it works</p>	<ul style="list-style-type: none"> • Low vitamin B1 can cause heart and brain problems • Replaces lost or missing thiamine • Thiamine is needed for <ul style="list-style-type: none"> ▸ Nervous system to work properly ▸ Body to use carbohydrates for energy
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually no problems • Allergic reactions can occur after an injection (rare)

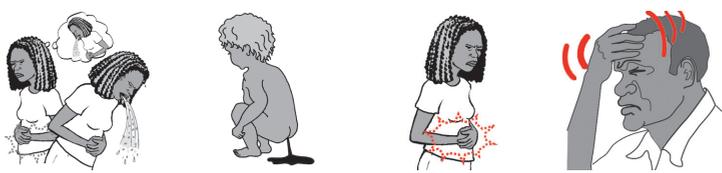
 <p>Warnings</p>	 <p>Return to clinic if confusion, lack of coordination, eye abnormalities (Wernicke's encephalopathy)</p>
<p>Tell the patient</p> 	 <p>Eat healthy food</p>  <p>Do not drink alcohol (grog)</p>
<p>Check</p>	<ul style="list-style-type: none"> • People who are long term or regular heavy drinkers of alcohol, or not eating properly, may need thiamine injection before starting thiamine tablets

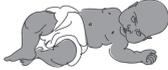
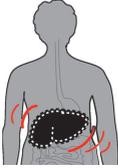
<p>Active ingredients (generic names)</p>	<p>ACICLOVIR (a-sy-clo-veer) FAMCICLOVIR (fam-sy-clo-veer) VALACICLOVIR (vala-sy-clo-veer)</p>  <p>Common name: antivirals</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Infections caused by viruses <ul style="list-style-type: none"> ▶ Chickenpox ▶ Cold sores (aciclovir ointment) ▶ Genital herpes (valaciclovir, famciclovir) ▶ Genital herpes in pregnancy (valaciclovir) ▶ Shingles ▶ Viral eye infections
<p>How it works</p>	<ul style="list-style-type: none"> • Stops viruses from growing by disrupting their DNA
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Confusion with higher doses and in elderly</p> </div> </div>

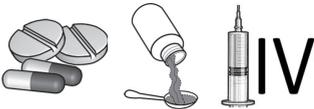
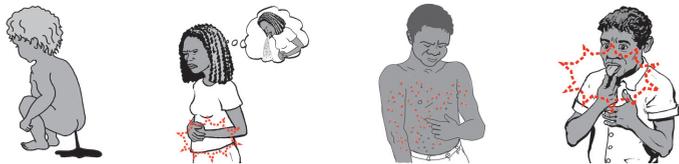
 <p>Warnings</p>	<ul style="list-style-type: none"> • If breastfeeding — aciclovir or valaciclovir preferred to famciclovir <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div>
<p>Interactions — Do not use together without medical consult ACICLOVIR, FAMICLOVIR, or VALACICLOVIR with</p> <ul style="list-style-type: none"> • Mycophenolate 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • For herpes and shingles — medicine works best if taken as soon as rash appears (within first 3 days) • For prevention of herpes — take medicine every day to stop symptoms coming back <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Take with large glass of water</p> </div> <div style="text-align: center;">  <p>Drink lots of water — lessens strain on kidneys</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if dizzy or faint</p> </div> </div> <ul style="list-style-type: none"> • Take all the medicine — makes sure all the virus is gone and the infection doesn't come back
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when treatment finished to make sure infection is gone. If not — medical consult

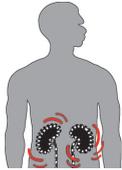
<p>Active ingredients (generic names)</p>	<p>ALBENDAZOLE (al-ben-da-zole)</p>  <p>Other benzimidazoles Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Mebendazole
<p>What it is used for</p>	<ul style="list-style-type: none"> • Hookworms • Threadworms • Strongyloides • Whipworms
<p>How it works</p>	<ul style="list-style-type: none"> • Stops worms from growing
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually none with short treatment <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> </div>

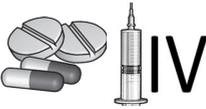
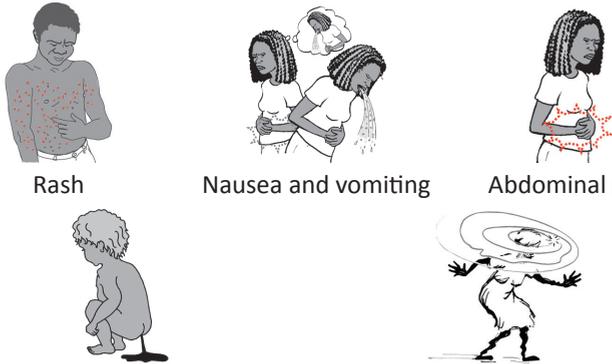
 <p>Warnings</p>	 <p>Pregnant</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May need to be treated again after 1 week • Keep fingernails short if scratching  <p>Take on empty stomach (hookworm, pinworm, whipworm, strongyloides)</p>  <p>Wash hands</p>  <p>Treat everyone living in house</p>
<p>Check</p>	 <p>Blood test</p> <p>If using for more than 6 weeks — liver function tests (LFT), FBC</p>

<p>Active ingredients (generic names)</p>	<p>AZITHROMYCIN (a-zith-row-my-sin) ROXITHROMYCIN (rox-ith-row-my-sin)</p>  <p>Other macrolides Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Clarithromycin • Erythromycin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Used to treat infections, eg STIs, sore throat and trachoma
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria cell from making proteins, so it can't grow • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	 <p>Nausea and vomiting Diarrhoea Abdominal pain Headache</p>

 <p>Warnings</p>	 <p>Babies under 6 months (limited information)</p>  <p>Liver trouble</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <p>AZITHROMYCIN with</p> <ul style="list-style-type: none"> • Digoxin • Theophylline • Warfarin <p>ROXITHROMYCIN with</p> <ul style="list-style-type: none"> • Digoxin • Warfarin <ul style="list-style-type: none"> • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back  <p>Take on empty stomach (roxithromycin)</p>  <p>Finish medicine — even if you feel better</p> <p>Warning stickers (page 310): Azithromycin medicine mixture 7a Roxithromycin 3b</p>
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult  <p>Making mixture (azithromycin) Make sure right amount of clean water added to dry powder to reconstitute</p>

<p>Active ingredients (generic names)</p>	<p>CEFALEXIN (sef-a-lex-in) CEFAZOLIN (ce-faz-o-lin) CEFTAZIDIME (cef-ta-zi-din) CEFTRIAXONE (cef-tri-ax-own) CEFUROXIME (cef-uro-xim)</p>  <p>Other cephalosporins Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Cefepime • Cefotaxime • Cefoxitin • Ceftaroline • Cefotolozane
<p>What it is used for</p>	<ul style="list-style-type: none"> • Lots of infections — gonorrhoea, kidney infections, mastitis, melioidosis, meningitis, pneumonia, septicaemia, skin and soft tissue infections, urinary tract infection (UTIs) • Sepsis (ceftriaxone) • Chronic suppurative lung disease (CSLD) in children — if acute episode (cefuroxime)
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria’s cell wall from growing • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Serum sickness-like reaction — rash, swollen glands, sore joints • Anaphylaxis rare — but consider if trouble breathing  <p>Diarrhoea Nausea Rash Anaphylaxis — severe allergic reaction</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> Person who is allergic to penicillin may also be allergic to cephalosporins  <p>Kidney trouble</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Return to clinic straight away if you get rash, swollen glands, sore joints (serum sickness-like reaction)</p> </div> <div style="text-align: center;">  <p>Store in fridge (not freezer) — if you don't the use-by/expiry date will be sooner and it won't work as well</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Finish medicine — even if you feel better</p> </div> <p>Warning stickers (page 310): Cefaclor A, B Medicine mixture (cefalexin) 6, 7a</p>
<p>Check</p>	<ul style="list-style-type: none"> Always have anaphylaxis kit with adrenaline (epinephrine) ready when giving ceftriaxone or cefazolin injections Follow-up when antibiotic finished to make sure infection is gone. If not — medical consult <div style="text-align: center; margin-top: 20px;">  <p>Making mixture</p> <p>Make sure right amount of clean water added to dry powder</p> </div>

<p>Active ingredients (generic names)</p>	<p>CIPROFLOXACIN (sip-row-flox-a-sin)</p>  <p>Other quinolones Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Moxifloxacin • Norfloxacin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Bronchiectasis in adults — acute episode because of <i>Pseudomonas</i> infection • Bites • Water-related skin infections • Injuries - limbs • Serious infections — sepsis
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria from making DNA. DNA is important for bacteria's growth • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Skin more sensitive to the sun • Tendon damage (rare)  <p>Rash Nausea and vomiting Abdominal pain</p> <p>Diarrhoea Dizzy</p>

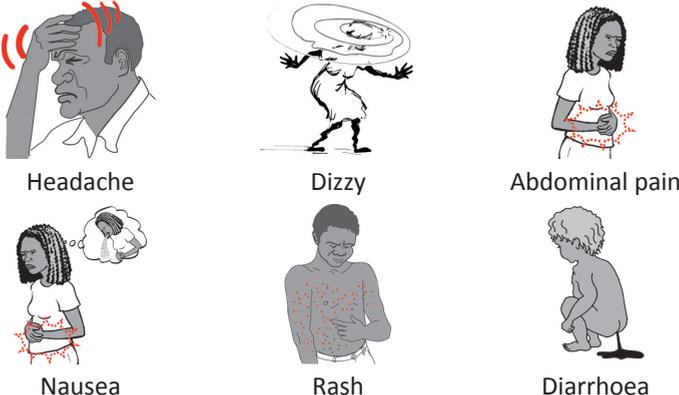
 <p>Warnings</p>	<ul style="list-style-type: none"> • Caution in people who are taking or have just finished taking steroid medicines <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="473 247 555 393"></div> <div data-bbox="718 247 821 393"></div> <div data-bbox="989 247 1066 393"></div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <p>Pregnant</p> <p>Breastfeeding</p> <p>Children</p> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="461 451 564 596"></div> <div data-bbox="718 451 821 596"></div> <div data-bbox="954 493 1099 553"></div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <p>Kidney trouble</p> <p>Liver trouble</p> <p>Epilepsy (fits)</p> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Quinolones interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Stop taking these tablets if you get sore tendons or joints • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="439 948 584 1075"></div> <div data-bbox="696 948 842 1075"></div> <div data-bbox="984 935 1074 1081"></div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <p>Take on empty stomach</p> <p>Do not drive or operate machinery if dizzy or faint</p> <p>Drink lots of water</p> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="443 1208 584 1335"></div> <div data-bbox="700 1208 842 1335"></div> <div data-bbox="958 1208 1099 1335"></div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <p>Keep out of the sun</p> <p>Finish medicine — even if you feel better</p> <p>Do not drink alcohol (grog)</p> </div> <p>Warning stickers (page 310): 3b, 4, 8, 12</p>
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult

<p>Active ingredients (generic names)</p>	<p>CLINDAMYCIN (clin-da-my-sin)</p>  <p>Other lincosamides Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Lincomycin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Dental and oral problems • Cellulitis • Injuries - soft tissue • Mastitis and breast abscess • Premature rupture of membranes • Bites • Injuries - head • Injuries - spear and knife (stab) wounds
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops the bacteria cell from making proteins so it can't grow • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Rash</p> </div> <div style="text-align: center;">  <p>Itch</p> </div> </div>

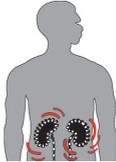
 <p>Warnings</p>	<ul style="list-style-type: none"> If patient likely to be intubated, make sure doctor knows they have been taking clindamycin <p>Interactions — Do not use together without medical consult CLINDAMYCIN with</p> <ul style="list-style-type: none"> Some medicines used when intubating patients
<p>Tell the patient</p> 	<ul style="list-style-type: none"> Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> <div style="text-align: center;">  <p>Take with large glass of water</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if you get diarrhoea — stop taking medicine</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult <div style="text-align: center;">  <p>Blood test if using for a long time — check kidney function (UEC), liver function tests (LFT), FBC</p> </div>

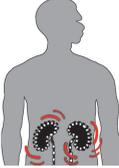
<p>Active ingredients (generic names)</p>	<p>DOXYCYCLINE (dox-i-si-clean)</p>  <p>Other tetracyclines Not included in this monograph — see <i>AMH</i> for more information.</p> <ul style="list-style-type: none"> • Minocycline • Tetracycline
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chronic lung disease — getting worse (exacerbation) <ul style="list-style-type: none"> ▸ Bronchiectasis in adults ▸ COPD • Chlamydia • Vulval problems • Discharge from penis • Infected testes • Pelvic inflammatory disease (PID) • Dental trauma • Acne (pimples) • Malaria prevention (prophylaxis) • Leptospirosis (Weil’s/canecutter’s disease)
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria cell from making proteins so it can’t grow • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Heartburn • Discoloured teeth (long term use) when used in kids and in pregnancy • Increased skin sensitivity to the sun <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding (if needed for more than 1 week)</p> </div> <div style="text-align: center;">  <p>Children under 8 years</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> Tetracyclines interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> Stay standing or sitting for at least one hour after taking. If the tablets stick in your throat, they can cause damage Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Take with food or milk</p> </div> <div style="text-align: center;">  <p>Take with large glass of water</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> <div style="text-align: center;">  <p>Keep out of the sun</p> </div> </div> <p>Warning stickers (page 310): 4b, 8, B</p>
<p>Check</p>	<ul style="list-style-type: none"> Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult

<p>Active ingredients (generic names)</p>	<p>FLUCONAZOLE (flu-koe-na-zol)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Thrush (candida infection) that isn't getting better • Fungal infections, prevention and treatment
<p>How it works</p>	<ul style="list-style-type: none"> • Interferes with cell structure of fungus so it can't grow
<p>Side effects</p>	 <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 5px;">  Headache </div> <div style="text-align: center; margin: 5px;">  Dizzy </div> <div style="text-align: center; margin: 5px;">  Abdominal pain </div> <div style="text-align: center; margin: 5px;">  Nausea </div> <div style="text-align: center; margin: 5px;">  Rash </div> <div style="text-align: center; margin: 5px;">  Diarrhoea </div> </div>

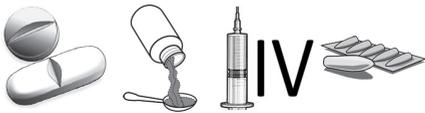
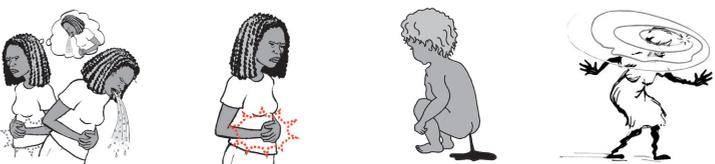
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> Fluconazole interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Take with large glass of water</p> </div> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Return to clinic straight away if you are unusually tired, nauseous, or not eating OR dark urine, pale faeces, yellowing of skin or the whites of the eyes</p> </div> <p>Warning stickers (page 310): 5</p>
<p>Check</p>	<ul style="list-style-type: none"> Follow-up when treatment finished to make sure infection is gone. If not — medical consult <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Making mixture Make sure right amount of clean water added to dry powder</p> </div> <div style="text-align: center;">  <p>Blood test if using for a long time Liver function tests (LFT), potassium level before starting, then every 1-3 months</p> </div> </div>

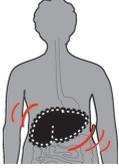
<p>Active ingredients (generic names)</p>	<p>GENTAMICIN (gen-ta-my-sin)</p>  <p>Other aminoglycosides Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Amikacin • Tobramycin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Given to people with serious infection before being sent to hospital • Serious infections (in hospital)
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria cell from making proteins so it can't grow • Different germs need different antibiotics. If not sure which antibiotic to use — check with doctor
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Kidney trouble — if used for more than 1 week</p> </div> <div style="text-align: center;">  <p>Ear damage — if used for more than 1 week</p> </div> <div style="text-align: center;">  <p>Ringing in ears</p> </div> <div style="text-align: center;">  <p>Can affect balance</p> </div> </div>

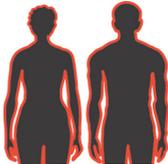
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Hearing trouble</p> </div> </div>
<p>Tell the patient</p> 	<div style="text-align: center;">  <p>Return to clinic if your hearing gets worse OR you are unsteady OR dizzy</p> </div>
<p>Check</p>	<div style="text-align: center;">  <p>Blood test</p> <p>Check kidney function (UEC) before starting medicine. If used for more than 3 days monitor blood level</p> </div>

<p>Active ingredients (generic names)</p>	<p>IVERMECTIN (i-ver-mec-tin)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Crusted scabies • Scabies • Strongyloides
<p>How it works</p>	<ul style="list-style-type: none"> • Kills worms and mites that infect people
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Sleepy</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Itch</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> </div>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Children under 5 years or less than 15kg</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May need to treat again after 1–2 weeks • How to prevent scabies and/or strongyloides infections • For crusted scabies <ul style="list-style-type: none"> ▸ Use skin cream like <i>Lyclear</i> at same time ▸ Treat other family members for scabies to prevent reinfection
<p>Check</p>	<p>For strongyloidiasis — do faeces test to see if treatment worked</p>

<p>Active ingredients (generic names)</p>	<p>METRONIDAZOLE (me-tro-ni-da-zole)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Infections, eg giardia, dental, skin and STIs
<p>How it works</p>	<ul style="list-style-type: none"> • An antibiotic that stops bacteria from making DNA. DNA is important for the bacteria's growth • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Metallic taste in mouth • Vaginal thrush (candida)  <p>Nausea and vomiting Abdominal pain Diarrhoea Dizzy</p>

 <p>Warnings</p>	 <p>Liver trouble</p> <p>Interactions — Do not use together without medical consult METRONIDAZOLE with</p> <ul style="list-style-type: none"> • Alcohol • Mycophenolate • Phenytoin • Warfarin
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If you get a metallic taste in your mouth that bothers you suck on some lollies (if you don't have diabetes) • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — Drinking alcohol during treatment and for 3 days after will make you feel sick</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if dizzy or faint</p> </div> </div> <p>Warning stickers (page 310): Metronidazole tablets 2, 5, B Metronidazole medicine mixture 2, 5, C</p>
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult

<p>Active ingredients (generic names)</p>	<p>MICONAZOLE (my-con-a-zole)</p>  <p>Other azole topical antifungals Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Bifonazole • Ciclopirox • Clotrimazole • Econazole • Ketoconazole <p>Topical azole & anti-inflammatory combinations Not included in the monograph — see <i>AMH</i> for more information:</p> <ul style="list-style-type: none"> • Clotrimazole + hydrocortisone (eg <i>Hydrozole Cream</i>) • Miconazole + hydrocortisone (eg <i>Resolve Plus</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Fungal infections of skin, eg nappy rash, tinea and thrush
<p>How it works</p>	<ul style="list-style-type: none"> • Stops fungus growing 
<p>Side effects</p>	<ul style="list-style-type: none"> • Can cause stinging if skin very tender from infection or from scratching

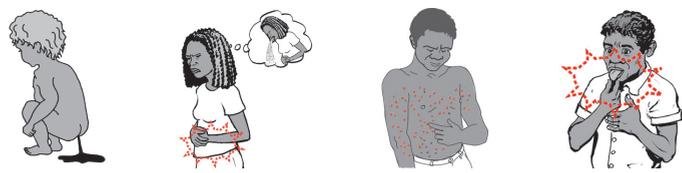
 <p>Warnings</p>	<ul style="list-style-type: none"> • Some combination antifungals can make a rash worse • May need antifungal tablets  <p>Medical consult if needed for more than a short time OR if lots of fungal infections — may be other problems</p>
<p>Tell the patient</p>  	<ul style="list-style-type: none"> • Use vaginal treatments at bedtime • Use a soothing cream or ice to relieve itch between antifungal cream applications • Can take a few weeks to treat skin infections — need to use regularly for benefit • Keep using antifungal cream for 2 weeks after all signs of infection gone to stop it coming back <p>Do not scratch, even if itchy</p>
<p>Check</p>	<p>Warning stickers (page 310): E</p> <ul style="list-style-type: none"> • Has patient been taking antibiotics — may cause vaginal thrush

<p>Active ingredients (generic names)</p>	<p>NITROFURANTOIN (ni-tro-fue-ran-toyn)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Urinary tract infections • Urinary tract infections in pregnancy
<p>How it works</p>	<ul style="list-style-type: none"> • An antibiotic that slows bacterial protein and cell wall growth • Helps to kill bacteria that cause some urinary tract infections • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	 <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="358 1552 490 1608"> <p>Nausea and vomiting</p> </div> <div data-bbox="564 1552 673 1576"> <p>Diarrhoea</p> </div> <div data-bbox="754 1552 864 1576"> <p>Headache</p> </div> <div data-bbox="976 1552 1031 1576"> <p>Rash</p> </div> </div>

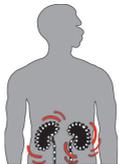
 <p>Warnings</p>	 <p>Pregnant — late term</p>  <p>Breastfeeding if baby less than 4 weeks old</p>  <p>Old people</p>  <p>Kidney trouble</p>  <p>Medical consult if person keeps getting UTIs</p>
<p>Interactions — Do not use together without medical consult NITROFURANTOIN with Urinary alkalinisers</p>	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Urine may turn a brownish colour • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back  <p>Take with a large glass of water</p>  <p>Take medicine with food</p>  <p>Do not drive or operate machinery if sleepy or dizzy</p>  <p>Return to clinic straight away if you have trouble breathing, develop a cough OR get tingling OR numbness</p>  <p>Finish medicine — even if you feel better</p>
<p>Warning stickers (page 310): 12, B</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult  <p>Blood test if using for a long time — kidney function (UEC), liver function tests (LFT)</p>

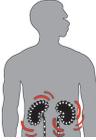
<p>Active ingredients (generic names)</p>	<p>NYSTATIN (ny-stat-in)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Fungal infections — thrush in mouth of babies or adults
<p>How it works</p>	<ul style="list-style-type: none"> • Acts on fungus in the mouth to stop it growing
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually no side effects

 <p>Warnings</p>	<ul style="list-style-type: none"> • If mother breastfeeding — may need to treat mother’s nipple area as well as baby’s mouth  <p>Medical consult if needed for more than a short time OR if lots of fungal infections — may be other problems</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not eat or drink for at least an hour after applying medicine • Keep using drops for 2 days after infection has cleared up • Keep using gel for a week after infection has cleared up  <p>Return to clinic if needed for more than a short time</p>
<p>Check</p>	<p>Warning stickers (page 310): Skin E</p>

<p>Active ingredients (generic names)</p>	<p>AMOXICILLIN (am-ox-i-sil-in) AMPICILLIN (am-pi-sil-in) BENZATHINE BENZYL PENICILLIN (benz-a-thine benz-el-pen-i-sil-in gee) BENZYL PENICILLIN (benz-el-pen-i-sil-in) DICLOXACILLIN (di-clox-a-sil-in) FLUCLOXACILLIN (flu-clox-a-sil-in) PHENOXYMETHYL PENICILLIN (fen-oxi-methal-pen-i-sil-in) PROCAINE BENZYL PENICILLIN (procaine penicillin) (pro-cane benz-el-pen-i-sil-in) AMOXICILLIN + CLAVULANIC ACID (am-ox-i-sil-in klav-u-lan-ic a-sid)</p>  <p>Other penicillin combinations Not included in this monograph — see <i>AMH</i> for information: • Piperacillin + tazobactam (eg <i>PiperTaz, Piptaz, Tazocin EF</i>)</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Different types of bacterial infections
<p>How it works</p>	<ul style="list-style-type: none"> • Kills bacteria sensitive to penicillin — stops cell wall from growing • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Pain at injection site with benzathine benzylpenicillin  <p>Diarrhoea Nausea Rash Anaphylaxis — severe allergic reaction</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • About 1 in 10 people are allergic to penicillin <ul style="list-style-type: none"> ▶ Consider allergy if rash • Anaphylaxis is rare — but consider if trouble breathing <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Rash</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Rheumatic fever needs regular long-term treatment with benzathine benzylpenicillin to prevent heart damage or stop it getting worse. Doctor will tell you when you can stop • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Take on empty stomach (dicloxacillin, flucloxacillin, phenoxymethylpenicillin)</p> </div> <div style="text-align: center;">  <p>Store in fridge (not freezer). If any medicine left after 2 weeks — return it to the clinic</p> </div> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> </div> <p>Warning stickers (page 310): Medicine mixtures 6, 7a Dicloxacillin, flucloxacillin, phenoxymethylpenicillin 3a or 3b Amoxicillin + clavulanic acid 13, F</p>
<p>Check</p>	<ul style="list-style-type: none"> • Must have anaphylaxis kit with adrenaline (epinephrine) ready when giving penicillin by injection • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Making mixture Make sure right amount of clean water added to dry powder</p> </div> <div style="text-align: center;">  <p>Blood test if using for more than 10 days at a high dose — kidney function (UEC), liver function tests (LFT), FBC</p> </div> </div>

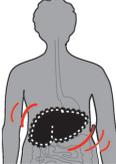
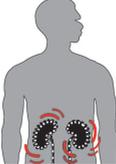
<p>Active ingredients (generic names)</p>	<p>PROBENECID (pro-ben-a-sid)</p> 
<p>What it is used for</p>	<p>Helps antibiotics work better in treatment of</p> <ul style="list-style-type: none"> • Skin infections <ul style="list-style-type: none"> ▸ Abnormal vaginal discharge ▸ Discharge from penis • Can use for long-term treatment of gout
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces elimination of some acidic medicines (eg penicillins, cephalosporins) by the kidneys — so more antibiotic stays in body and works for a longer time • Increases removal of uric acid by the kidneys — reducing risk of gout attack
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Rash</p> </div> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Kidney stones</p> </div> </div>

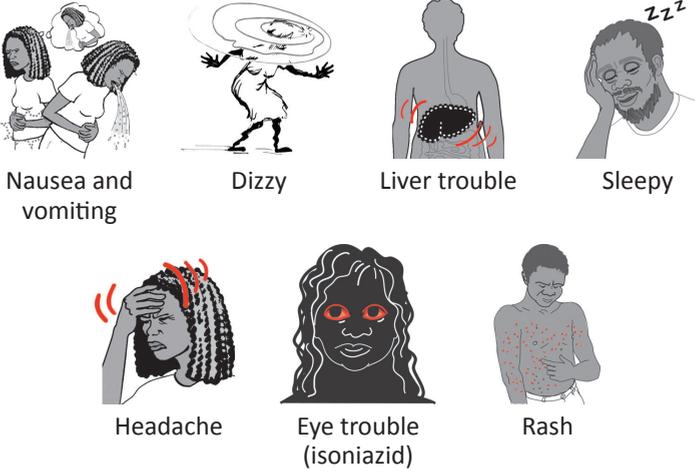
 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not start (or restart) use during a gout attack <ul style="list-style-type: none"> ▶ If person already taking regularly — can continue to use <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Kidney stones</p> </div> <div style="text-align: center;">  <p>Pregnant</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Children under 2 years</p> </div> </div>
	<p>Interactions — Do not use together without medical consult Probenecid interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take more than 1 aspirin a day unless doctor tells you to <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div style="text-align: center;">  <p>Drink lots of water — helps stop build up of uric acid, can prevent kidney stones</p> </div> </div> <p>Warning stickers (page 310): 10a, B</p>
<p>Check</p>	<div style="text-align: center;">  <p>Blood test Regular checks for kidney function (UEC), FBC</p> </div>

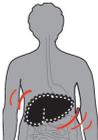
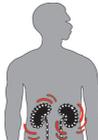
<p>Active ingredients (generic names)</p>	<p>PYRANTEL (pie-ran-tell)</p>  <div data-bbox="435 202 542 305" style="border: 1px solid black; padding: 2px;"> <p>Chewable squares (chocolate)</p> </div>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Worms <ul style="list-style-type: none"> ▶ Hookworm ▶ Threadworm ▶ Community de-worming
<p>How it works</p>	<ul style="list-style-type: none"> • Kills worms that infect people 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> </div>

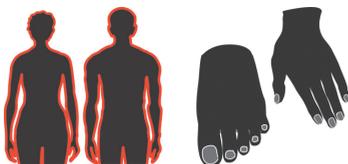
 <p>Warnings</p>	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If giving to children — use chocolate squares or crush tablets and mix with jam  <p>Wash hands</p>  <p>Treat everyone Treat all people living in the house, one may be source of infection</p>
<p>Check</p>	 <p>Blood test Check iron levels, if needed</p>

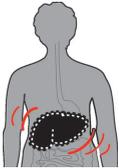
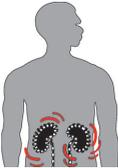
<p>Active ingredients (generic names)</p>	<p>ETHAMBUTOL (eth-am-bu-tol) PYRAZINAMIDE (peer-a-zin-a-mide)</p> <ul style="list-style-type: none"> • Only available through special access scheme (SAS)  <p>Standard short-course tuberculosis therapy — used in combination with standard long-course medicines for at least 2 months</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Tuberculosis (TB) treatment or prevention
<p>How it works</p>	<ul style="list-style-type: none"> • Kills or slows growth of bacteria that cause TB
<p>Side effects</p>	<ul style="list-style-type: none"> • Sore joints (pyrazinamide) <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Eye trouble (ethambutol)</p> </div> <div style="text-align: center;">  <p>Rash (ethambutol)</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Liver trouble (pyrazinamide)</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Eye trouble (ethambutol)</p> </div> <div style="text-align: center;">  <p>Gout</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • TB medicines interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May take 6 months for infection to go away <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Important to take medicine as instructed</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if changes in vision (blurred or colour changes), ongoing nausea, vomiting, unusual tiredness, yellowing of eyes, dark urine, pale faeces</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Patient must be supervised by Public Health Unit (PHU) • Check vision before starting treatment and every month while using ethambutol <div style="text-align: center; margin-top: 20px;">  <p>Blood test — Check kidney function (UEC), potassium level, rheumatoid factor (RF) 1-2 weeks after starting medicine, then every 6-12 months</p> </div>

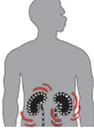
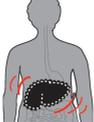
<p>Active ingredients (generic names)</p>	<p>ISONIAZID (iso-ni-a-zid) RIFAMPICIN (rif-amp-i-cin)</p>  <p>Standard long-course TB therapy — used with short course TB medicines for at least 2 months, then just these 2 long course medicines for at least 6 months</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Tuberculosis (TB) treatment or prevention
<p>How it works</p>	<ul style="list-style-type: none"> • Kills or slows growth of bacteria that cause TB
<p>Side effects</p>	<ul style="list-style-type: none"> • Red coloured urine and body secretions (eg sweat, tears) (rifampicin) • Flu-like symptoms — sore bones/muscles • Nerve (neuropathic) pain in legs and arms (isoniazid) <ul style="list-style-type: none"> ▶ Taking vitamin B6 (pyridoxine) at same time reduces risk  <p>Nausea and vomiting Dizzy Liver trouble Sleepy</p> <p>Headache Eye trouble (isoniazid) Rash</p>

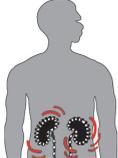
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Epilepsy (fits) (isoniazid)</p> </div> <div style="text-align: center;">  <p>Kidney trouble (isoniazid)</p> </div> </div> <p>Interactions — Do not use together without medical consult TB medicines interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take vitamin B6 (pyridoxine) with isoniazid to reduce risk of nerve pain in legs and arms • Take medicine regularly so you don't get flu-like symptoms • May take 6 months for infection to go away • Red urine and body secretions aren't dangerous and will stop when medicine is finished <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Take on empty stomach</p> </div> <div style="text-align: center;">  <p>Important to take medicine as instructed</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if nausea, vomiting, tiredness, changes in vision, fever OR rash gets worse or bothers you — Stop taking the medicine</p> </div> </div> <p>Warning stickers (page 310): Isoniazid 3b Rifampicin 3b, 5</p>
<p>Check</p>	<ul style="list-style-type: none"> • Patient must be supervised by Public Health Unit (PHU) • Is person taking vitamin B6 (pyridoxine) with isoniazide <div style="text-align: center;">  <p>Blood test — Check liver function tests (LFT), creatinine, FBC, thyroid function (rifampicin) before starting treatment, then LFT every 1–3 months</p> </div>

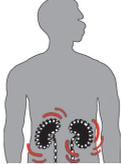
<p>Active ingredients (generic names)</p>	<p>TERBINAFINE (ter-bin-na-feen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Serious or long lasting fungal infections of skin or nails <ul style="list-style-type: none"> ▸ Tinea
<p>How it works</p>	<ul style="list-style-type: none"> • Kill fungus that causes infection • Different germs need different anti-infectives. If not sure which one to use — check with doctor 
<p>Side effects</p>	<ul style="list-style-type: none"> • Strange taste in mouth  <p style="text-align: center;"> Headache Nausea Diarrhoea </p>

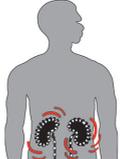
 <p>Warnings</p>	<ul style="list-style-type: none"> • Psoriasis (thick, red, scaly skin) <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult TERBINAFINE with</p> <ul style="list-style-type: none"> • Rifampicin
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Nails will not look normal until they grow out • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Finish medicine — even if you feel better</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if you are unusually tired, nauseous OR not eating OR dark urine, pale faeces, yellowing of your skin or the whites of your eyes OR fever, mouth ulcers, sore throat OR unusual bruising</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when treatment finished to make sure infection has gone. If not — medical consult <div style="text-align: center;">  <p>Blood test if using for more than 6 weeks — liver function tests (LFT), FBC</p> </div>

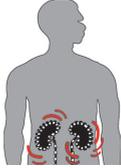
<p>Active ingredients (generic names)</p>	<p>TRIMETHOPRIM (tri-meth-o-prim) TRIMETHOPRIM + SULFAMETHOXAZOLE (tri-meth-o-prim + sul-fa-meth-ox-a-zol) Also known as: co-trimoxazole</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Respiratory infections, UTIs, prostatitis Trimethoprim + sulfamethoxazole • Ear and hearing problems • Balanitis • Melioidosis • Skin infections <ul style="list-style-type: none"> ▶ Boils ▶ School sores (impetigo) ▶ Cellulitis • Urinary tract infections (UTIs) in children • Water-related skin infections
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria from making folate, which is important for bacteria's growth • Different germs need different antibiotics. If not sure which one to use — check with doctor
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Itchy rash</p> </div> <div style="text-align: center;">  <p>Fever</p> </div> </div>

 <p>Warnings</p>	 Pregnant  Babies under 6 weeks  Kidney trouble  Old people  Liver trouble (severe)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take all the medicine — makes sure all the germs are gone and the infection doesn't come back  Take at night (trimethoprim)  Take with food (trimethoprim + sulfamethoxazole)  Keep out of the sun (trimethoprim + sulfamethoxazole)  Finish medicine — even if you feel better  Drink lots of water  Return to clinic straight away if you get a sore throat, fever, troublesome rash, cough, difficulty breathing, joint pain, dark urine or pale stools
	<p>Warning stickers (page 310): Trimethoprim + sulfamethoxazole 8, B</p>
<p>Check</p>	<ul style="list-style-type: none"> • Follow-up when antibiotic treatment finished to make sure infection is gone. If not — medical consult  <p>Blood test if taking trimethoprim + sulfamethoxazole for a long time — FBC, kidney function (UEC), liver function tests (LFT), folate levels regularly</p>

<p>Active ingredients (generic names)</p>	<p>VANCOMYCIN (van-co-my-sin)</p>  <p>Other glycopeptides Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Teicoplanin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Prevention of endocarditis during dental and surgical procedures for people with heart problems, if allergic to penicillin • Serious infections in people allergic to penicillin or cephalosporins • Sepsis • Serious infections resistant to other antibiotics (see MRSA in Glossary)
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria cell from making proteins, so it can't grow • Different germs need different antibiotics. If not sure which antibiotic to use — check with doctor
<p>Side effects</p>	<ul style="list-style-type: none"> • Flushing, rash, itch, swelling of throat (red man syndrome) — rare <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Itch</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Hearing trouble</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> Give infusion over at least 1 hour to reduce risk of red man syndrome <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Hearing trouble</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult VANCOMYCIN with</p> <ul style="list-style-type: none"> Any medicine that affects the kidneys or ears
<p>Tell the patient</p> 	<div style="text-align: center;">  </div> <p>Return to clinic straight away if flushing, rash, itch, or swelling of the throat</p>
<p>Check</p>	<div style="text-align: center;">  <p>Blood test</p> </div> <p>Monitor vancomycin blood levels for courses over 3 days Renal and liver function monitored weekly</p>

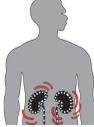
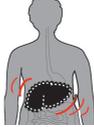
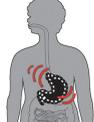
<p>Active ingredients (generic names)</p>	<p>NIRMATRELVIR + RITONAVIR (ner-mah-trell-veer + ree-toe-nah-veer)</p>  <p>Other antivirals for COVID-19 : Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Molnupiravir • Sotrovimab
<p>What it is used for</p>	<ul style="list-style-type: none"> • Treatment of COVID-19
<p>How it works</p>	<ul style="list-style-type: none"> • Stops the virus that causes COVID-19 from making copies of itself and spreading throughout your body
<p>Side Effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div>

	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Kidney damage</p> </div> </div>
<p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>NIRMATRELVIR + RITONAVIR with</p> <ul style="list-style-type: none"> • Carbamazepine • Dabigatran • Itraconazole • Midazolam
<p>Tell Patient</p>	<ul style="list-style-type: none"> • Works best if taken soon after symptoms appear • Take one of each type of tablet, swallow whole <div style="text-align: center;">  </div> <p>Finish medicine — even if you feel better</p>
<p>Check</p>	

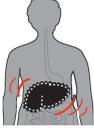
<p>Active ingredients (generic names)</p>	<p>ASPIRIN (as-pi-rin) CLOPIDOGREL (clo-pid-o-grel) ASPIRIN + CLOPIDOGREL (as-pi-rin + clo-pid-o-grel)</p>  <p>See NSAIDs for using aspirin for pain relief (page 234) Other antiplatelet medicines Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Dipyridamole • Prasugrel • Ticagrelor <p>Antiplatelet combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Aspirin + dipyridamole
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chest pain — initial management (aspirin) • Coronary artery disease • Reducing cardiovascular risk • Thinning blood after heart surgery or after stent inserted (aspirin + clopidogrel)
<p>How it works</p>	<ul style="list-style-type: none"> • Prevents blood clots forming • Clots are needed to stop bleeding, but dangerous if they block blood flow to heart (heart attack), brain (stroke), lungs (pulmonary embolism) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Stroke from bleeding in the brain — rare  <p>Cuts may take longer to stop bleeding</p>  <p>Abdominal pain</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • People with severe bleeding disorders <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Allergic to aspirin</p> </div> <div style="text-align: center;">  <p>Pregnant (clopidogrel)</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Asthma (aspirin)</p> </div> <div style="text-align: center;">  <p>Stomach trouble (bleeding)</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <p>ASPIRIN with</p> <ul style="list-style-type: none"> • Other NSAIDs • Probenecid • Valproate (if high dose aspirin) • Warfarin <p>CLOPIDOGREL with</p> <ul style="list-style-type: none"> • Proton pump inhibitors (eg omeprazole, esomeprazole)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Keep aspirin in the foil until you need them. Soluble tablets (non-coated) go off in humid air and when wet • Use coated (non-soluble) tablets when filling dosettes • If person has stent in an artery supplying blood to their heart — they will need to take 1 or 2 antiplatelet medicines for a long time <ul style="list-style-type: none"> ▶ Important to keep taking them until doctor says it is OK to stop <div style="text-align: center;">  </div> <p>Do not stop taking medicine — You may not feel different, but medicine will help stop heart attack and stroke</p> <p>Warning stickers (page 310): Aspirin 9, 13, 19b (high dose), A, B Clopidogrel, aspirin + clopidogrel 9, 10a</p>
<p>Check</p>	

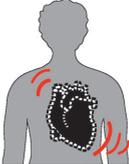
<p>Active ingredients (generic names)</p>	<p>APIXABAN (a-pix-a-ban) RIVAROXABAN (riv-a-rox-a-ban)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preventing clots in people at risk <ul style="list-style-type: none"> ▸ Includes people with atrial fibrillation and after hip or knee surgery • Treatment of clots
<p>How it works</p>	<ul style="list-style-type: none"> • Prevents blood clots forming • Clots are needed to stop bleeding, but dangerous if they block blood flow to heart (heart attack), brain (stroke), lungs (pulmonary embolism) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Can cause bleeding inside body <ul style="list-style-type: none"> ▸ Signs of bleeding are bruising, blood in urine, coughing up blood, red or black faeces • May cause allergic reaction with swelling  <p>Cuts may take longer to stop bleeding</p>  <p>Itchy rash (rivaroxaban)</p>  <p>Nausea (apixaban)</p>  <p>Bleeding gums</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use if person has mechanical heart valve • If less than 60kg — check dose for apixaban <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="418 232 570 396">  <p>Breastfeeding</p> </div> <div data-bbox="624 232 786 396">  <p>Kidney trouble</p> </div> <div data-bbox="915 232 1057 396">  <p>Liver trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="444 402 542 529">  <p>Pregnant</p> </div> <div data-bbox="615 402 795 529">  <p>Stomach trouble</p> </div> <div data-bbox="821 402 1147 620">  <p>Medical consult if person has signs of bleeding, eg blood in urine, red or black faeces</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Apixaban and rivaroxaban interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take other medicines without checking. Some tablets you can buy at supermarket are dangerous to take with apixaban or rivaroxaban (eg ibuprofen) • Make sure you tell other doctors, dentists, and health people that you are taking apixaban or rivaroxaban <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="396 1002 683 1299">  <p>Do not stop taking medicine — You may not feel different, but still important to take medicine as instructed</p> </div> <div data-bbox="709 1002 851 1239">  <p>Take with food or milk (rivaroxaban)</p> </div> <div data-bbox="877 1002 1147 1299">  <p>Return to clinic if signs of bleeding (eg nose bleeds, black faeces) OR unexplained bruising during or after treatment</p> </div> </div> <p>Warning stickers (page 310): Apixaban 10b, 18 Rivaroxaban 10b, B</p>
<p>Check</p>	<ul style="list-style-type: none"> • Make sure patient knows planned length of treatment <div style="text-align: center; margin: 10px 0;">  </div> <p>Blood test — check INR (blood clotting) and kidney function UEC before starting, then UEC every 6 months (3 months if elderly or if person unwell)</p>

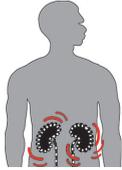
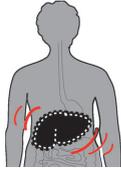
<p>Active ingredients (generic names)</p>	<p>DABIGATRAN (Da-big-a-tran)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preventing blood clots in people at risk <ul style="list-style-type: none"> ▸ Includes people with atrial fibrillation and after hip or knee surgery
<p>How it works</p>	<ul style="list-style-type: none"> • Prevents blood clots forming • Clots are needed to stop bleeding, but dangerous if they block blood flow to heart (heart attack), brain (stroke), lungs (pulmonary embolism) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Can cause bleeding inside the body <ul style="list-style-type: none"> ▸ Signs of bleeding are bruising, blood in urine, coughing up blood, red or black faeces <div style="display: flex; justify-content: space-around;"> <div data-bbox="374 1439 538 1597">  <p>Cuts may take longer to stop bleeding</p> </div> <div data-bbox="632 1439 795 1597">  <p>Bleeding gums</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use if person has mechanical heart valve <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="444 196 521 329">  <p>Pregnant</p> </div> <div data-bbox="615 196 735 329">  <p>Old people</p> </div> <div data-bbox="821 196 915 329">  <p>Kidney trouble</p> </div> <div data-bbox="1014 196 1108 329">  <p>Medical consult if person has signs of bleeding, eg blood in urine, red or black faeces</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="437 365 529 493">  <p>Breastfeeding</p> </div> <div data-bbox="628 365 722 493">  <p>Liver trouble</p> </div> <div data-bbox="821 365 915 493">  <p>Stomach trouble</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Dabigatran interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine • Do not use with any low molecular weight heparin (eg enoxaparin)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Swallow capsules whole. Do not open capsules or chew/crush pellets • Do not pack into dose aids — keep tablets in foil or bottle • Do not take other medicines without checking. Some tablets you can buy at supermarket are dangerous to take with dabigatran (eg ibuprofen) • Make sure you tell other doctors, dentists, and health people that you are taking dabigatran <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 20px;"> <div data-bbox="480 1081 615 1190">  <p>Take with food or milk</p> </div> <div data-bbox="757 1075 890 1203">  <p>Do not stop taking medicine — you may not feel different, but still important to take medicine as instructed</p> </div> <div data-bbox="989 1070 1105 1206">  <p>Return to clinic if signs of bleeding (eg nose bleeds, black faeces) OR unexplained bruising during or after treatment</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 20px;"> <div data-bbox="499 1252 593 1379">  <p>Take with large glass of water</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Make sure patient knows planned length of treatment <div style="display: flex; align-items: center; margin-top: 20px;">  <div style="margin-left: 10px;"> <p>Check INR (blood clotting) and kidney function UEC before starting, then UEC every 6 months (3 months if elderly or if person unwell)</p> </div> </div> <p>Blood test</p>

<p>Active ingredients (generic names)</p>	<p>DARBEPOETIN ALPHA (dar-be-po-e-tin)</p>  <p>Other erythropoietin agonists Not included in this monograph — see <i>AMH</i> for information:.</p> <ul style="list-style-type: none"> • Epoetin • Epoetin beta • Methoxy pegepoetin beta
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anaemia (lack of red blood cells) caused by kidney failure and chemotherapy
<p>How it works</p>	<ul style="list-style-type: none"> • Replaces the hormone that helps bone marrow make more red blood cells
<p>Side effects</p>	<ul style="list-style-type: none"> • Flu symptoms • Bone pain  

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If patient self injecting — tell them to hold syringe or preloaded injector in their hand for a few minutes to warm it — it will hurt less • If not kept in fridge — use-by/expiry date will be sooner and it won't work as well <div style="text-align: center;">  <p>Store in fridge (not freezer)</p> </div>
<p>Warning stickers (page 310): 6</p>	
<p>Check</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Blood pressure</p> </div> <div style="text-align: center;">  <p>Blood test Check haemoglobin levels Check iron, vitamin B12, folic acid levels</p> </div> </div>

<p>Active ingredients (generic names)</p>	<p>ENOXAPARIN (ee-nox-ap-a-rin)</p> <p>SubCut </p> <p>Other heparins Not included in the monograph — see <i>AMH</i> for information.</p> <ul style="list-style-type: none"> • Dalteparin • Heparin • Danaparoid • Nadroparin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Management of heart attack <ul style="list-style-type: none"> ▸ With ST elevation ▸ Without ST elevation • Preventing and treating blood clots (thromboembolism) <ul style="list-style-type: none"> ▸ Pregnancy and postnatal • May be used with warfarin until patient's INR (blood clotting) is in target range
<p>How it works</p>	<ul style="list-style-type: none"> • Helps to stop blood clotting, reduces risk of large clots forming
<p>Side effects</p>	<ul style="list-style-type: none"> • Bruising and pain at injection site <p></p> <p>Bleeding or bruising</p>

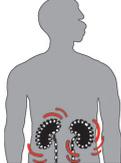
 <p>Warnings</p>	 <p>Kidney trouble</p>  <p>Liver trouble</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <p>ENOXAPARIN with</p> <ul style="list-style-type: none"> • Apixaban • Dabigatran • Rivaroxaban • Bivalirudin • Fondaparinux  <p>Return to clinic if signs of bleeding (eg nose bleeds, black faeces) OR unexplained bruising during or after treatment</p>
<p>Check</p>	<p>Warning stickers (page 310): 10b</p> <ul style="list-style-type: none"> • Patient needs to know how to give injection correctly (subcutaneously) — IM injection will cause bad bruising (haematoma)

Blood and electrolytes

<p>Active ingredients (generic names)</p>	<p>TENECTEPLASE (ten-ec-te-plase)</p>  <p>Other thrombolytics Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Alteplase
<p>What it is used for</p>	<ul style="list-style-type: none"> • Thrombolysis (treat suspected heart attack by breaking down blood clots in the heart)
<p>How it works</p>	<ul style="list-style-type: none"> • Causes fibrin to break down (fibrin helps clot the blood)
<p>Side effects</p>	<ul style="list-style-type: none"> • Bleeding at injection or IV site • Signs of bleeding include bruising, blood in urine or red or black faeces  <p>Bleeding or bruising</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Bleeding — recent trauma or other active bleeding <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Old people (use lower dose)</p> </div> <div style="text-align: center;">  <p>Pregnant</p> </div> </div>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <p>TENECTEPLASE with</p> <ul style="list-style-type: none"> • Apixaban • Dabigatran • Rivaroxaban • Warfarin • Bivalirudin • Fondaparinux
<p>Check</p>	

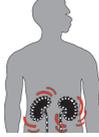
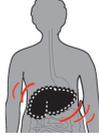
<p>Active ingredients (generic names)</p>	<p>TRANEXAMIC ACID (tra-nex-amic a-cid)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Reduction of bleeding in <ul style="list-style-type: none"> ▶ Nose bleeds (epistaxis) ▶ Injuries — spear and knife (stab) wounds ▶ Injuries — abdomen and pelvis ▶ Injuries — bleeding ▶ Primary postpartum haemorrhage
<p>How it works</p>	<p>Stops breakdown of clots by blocking binding of plasminogen and plasmin that help to break down fibrin (fibrin helps clot strength)</p>
<p>Side effects</p>	<ul style="list-style-type: none"> • Thrombosis, visual disturbances including transient disturbance of colour vision • With IV administration <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 10px;"> <div style="text-align: center;">  <p>Low BP</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Epilepsy (fits)</p> </div> </div> • With oral administration <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 10px;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> </div>

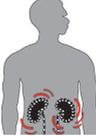
 <p>Warnings</p>	<ul style="list-style-type: none"> • Give within 3 hours of injury • People with clotting disorders <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div>
<p>Tell the patient</p> 	
<p>Check</p>	

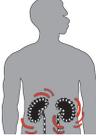
<p>Active ingredients (generic names)</p>	<p>VITAMIN K (vite-a-min K) Also known as: phytomenadione</p>  <p>Other medicines that affect blood clotting (haemostasis) Not included in this monograph — see <i>AMH</i> for information.</p> <ul style="list-style-type: none"> • Protamine • Idarucizumab
<p>What it is used for</p>	<ul style="list-style-type: none"> • Prevents vitamin K deficiency bleeding (haemorrhagic disease) in newborn babies • Reverses warfarin overdose — liquid for injection can be given orally
<p>How it works</p>	<ul style="list-style-type: none"> • Helps blood to clot
<p>Side effects</p>	<ul style="list-style-type: none"> • Pain from IM injection • Injection site may become tender and sore • Allergic reaction (rapid injection)  <p>Anaphylaxis — severe allergic reaction (rare)</p>

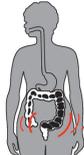
 <p>Warnings</p>	 <p>Old people — use lower dose</p> <ul style="list-style-type: none"> • Best to use IM injection of vitamin K to prevent vitamin K deficiency bleeding (haemorrhagic disease) in newborn babies <p>Interactions — Do not use together without medical consult</p> <p>VITAMIN K with</p> <ul style="list-style-type: none"> • Warfarin
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Liquid for injection can also be taken by mouth (oral)
<p>Check</p>	<ul style="list-style-type: none"> • Always have anaphylaxis kit with adrenaline (epinephrine) ready when giving vitamin K injections  <p>Blood test INR (blood clotting)</p>

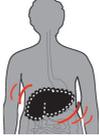
<p>Active ingredients (generic names)</p>	<p>WARFARIN (war-far-in)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preventing clots in people at risk — people with <ul style="list-style-type: none"> ▶ Chronic heart failure ▶ Atrial fibrillation ▶ Mechanical heart valves ▶ Some clotting disorders (thrombophilias), heart diseases • Treatment of clots <ul style="list-style-type: none"> ▶ Pregnancy and postnatal
<p>How it works</p>	<ul style="list-style-type: none"> • Prevents blood clots forming that may block blood flow to heart (heart attack), brain (stroke), lungs (pulmonary embolism) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Can cause bleeding inside body <ul style="list-style-type: none"> ▶ Signs of bleeding are bruising, blood in urine, coughing up blood, red or black faeces <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Cuts may take longer to stop bleeding</p> </div> <div style="text-align: center;">  <p>Bleeding gums</p> </div> </div>

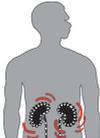
 <p>Warnings</p>	 <p>Pregnant</p>  <p>Old people</p>  <p>Kidney trouble</p>  <p>Liver trouble</p>  <p>Stomach trouble</p>  <p>Medical consult if person has signs of bleeding, eg blood in urine, red or black faeces</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Warfarin interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine • Eat about the same amount of green leafy vegetables each week, try not to skip meals • Do not take other medicines without checking. Some tablets you can buy at supermarket are dangerous when taken with warfarin (eg ibuprofen) <ul style="list-style-type: none"> ▶ Do not use aspirin and warfarin together unless doctor tells you to • The 2 brands of warfarin tablets (<i>Marevan</i> and <i>Coumadin</i>) are not exactly the same. Always take same brand of tablets • Make sure you tell other doctors, dentists, and health people that you are taking warfarin • Regular blood tests (INR) with this medicine. Tell your doctor if you have missed doses or are sick at the time of the test  <p>Do not drink alcohol (grog)</p>  <p>Take at same time every day</p>  <p>Return to clinic if signs of bleeding (eg nose bleeds, black faeces) OR unexplained bruising during or after treatment</p>
<p>Check</p>	<p>Warning stickers (page 310): 5, 10b</p>  <p>Blood test</p> <p>Check INR (blood clotting) before starting. Doctor will decide how often to repeat</p>

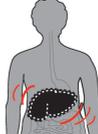
<p>Active ingredients (generic names)</p>	<p>PERINDOPRIL (per-in-doe-pril) <i>Note:</i> 5mg of perindopril arginine (eg <i>Coversyl</i>) = 4mg of perindopril erbumine (eg <i>Idaprex, Perindo</i>).</p> <p>RAMIPRIL (ram-i-pril)</p> <p>PERINDOPRIL + AMLODIPINE (per-in-doe-pril + am-lo-dip-in)</p> <p>PERINDOPRIL + INDAPAMIDE (per-in-doe-pril + in-dap-a-mide)</p>  <p>Common name: ACE inhibitors Other ACE inhibitors Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Captopril • Enalapril • Fosinopril • Lisinopril • Quinapril • Trandolapril <p>Other ACE inhibitor & thiazide combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Enalapril + HCT (eg <i>Renitec Plus</i>) • Fosinopril + HCT (eg <i>Monoplus</i>) • Quinapril + HCT (eg <i>Accuretic</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • High BP (hypertension) • Chronic kidney disease • Coronary artery disease • Heart failure • Slowing kidney and heart damage in people with diabetes
<p>How it works</p>	<ul style="list-style-type: none"> • Blocks effects of hormone that causes high BP • High BP can harm kidneys and heart • High BP can increase risk of stroke and heart attack 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Cough</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Kidney trouble — damage may get worse</p> </div> </div> <div style="margin-top: 20px;">  <p>Allergic reaction</p> <p style="margin-left: 150px;">If swollen face and throat make it hard to breathe — think of allergy</p> </div>

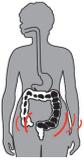
 <p>Warnings</p>	 <p>Old people — use lower dose</p>  <p>Pregnant</p>  <p>Kidney trouble — use lower dose</p>  <p>Urgent medical consult if face and throat start to swell</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult PERINDOPRIL or RAMIPRIL with</p> <ul style="list-style-type: none"> • NSAID (eg ibuprofen) • Lithium • Potassium <ul style="list-style-type: none"> • Might make you feel dizzy when you stand up quickly • Cough will sometimes settle down. If it doesn't see doctor to have the tablets changed • Do not take potassium supplements unless they are prescribed for you   <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p> <p>Return to clinic straight away if swelling of the lips or mouth OR have trouble breathing</p>
<p>Check</p>	<p>Warning stickers (page 310): 11, 12, 16</p>  <p>Blood pressure</p>  <p>Blood test — check kidney function (UEC), potassium level before starting medicine and after 1–2 weeks, then every 6–12 months</p>

<p>Active ingredients (generic names)</p>	<p>AMIODARONE (a-me-o-da-rone)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Heart attack with persistent VT or VF • Treat and prevent life-threatening abnormal heart rhythms (arrhythmias)
<p>How it works</p>	<ul style="list-style-type: none"> • Helps heart beat regularly by slowing nerve impulses in the heart, and making heart muscle fibres less responsive to abnormal nerve impulses 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Constipation</p> </div> <div style="text-align: center;">  <p>Trouble sleeping</p> </div> </div> <ul style="list-style-type: none"> • Lung (breathing) problems • Loss of appetite • Metallic taste • Disturbs functioning of thyroid gland (see Anatomy dictionary) • Blue-grey skin colouring may be seen on lighter skinned patients <p>Note: Amiodarone takes a long time to be removed from body so side effects take a while to go away after stopping.</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Breathing trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Amiodarone interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not drink grapefruit juice — can increase amount of medicine in your blood stream and your chance of getting side effects <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">   </div> <p>Keep out of the sun</p> <p>Return to clinic if you get shortness of breath, dry cough, eye problems, weight loss, muscle weakness, OR heart problems get worse</p>
	<p>Warning stickers (page 310): 5, 8, 18</p>
<p>Check</p>	<div style="display: flex; justify-content: space-around; align-items: center; margin-bottom: 20px;">   </div> <p>Blood test – check FBC, thyroid function (TFT), liver function tests (LFT), potassium level before starting treatment and then every 6 months</p> <p>Do chest x-ray and ECG before starting and then every year</p> <ul style="list-style-type: none"> • Lung function before starting, then every 6–12 months • Vision every year

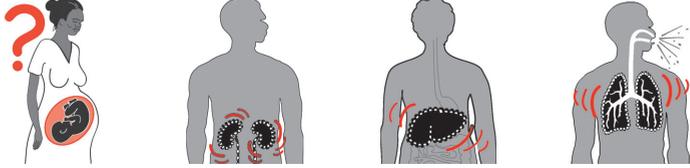
<p>Active ingredients (generic names)</p>	<p>IRBESARTAN (ir-be-sar-tan) TELMISARTAN (tel-mi-sar-tan) IRBESARTAN + HYDROCHLOROTHIAZIDE (ir-be-sar-tan + hy-dro-chlo-ro-thi-a-zide) Common brands include: <i>Abisart HCT, Avapro HCT, Karvezide</i></p>  <p>Common names: ARBs (say A, R, Bs) or sartans Other ARBs or sartans Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Candesartan • Eprosartan • Losartan • Olmesartan • Valsartan <p>Other ARB & diuretic combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Candesartan + HCT • Eprosartan + HCT • Olmesartan + HCT • Telmisartan + HCT • Valsartan + HCT
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chronic kidney disease if patient can't take ACE inhibitor • High BP (hypertension) • Slowing kidney and heart damage in people with diabetes • Can be used instead of ACE inhibitor if ACE inhibitor causes cough
<p>How it works</p>	<ul style="list-style-type: none"> • Blocks effects of hormone that causes high BP • High BP can harm kidneys and heart • High BP can increase risk of stroke and heart attack 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Dizzy when standing up</p> </div> <div style="text-align: center;">  <p>Kidney trouble — damage may get worse</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Allergic reaction</p> <p style="margin-left: 100px;">If swollen face and throat make it hard to breathe — think of allergy</p> </div>

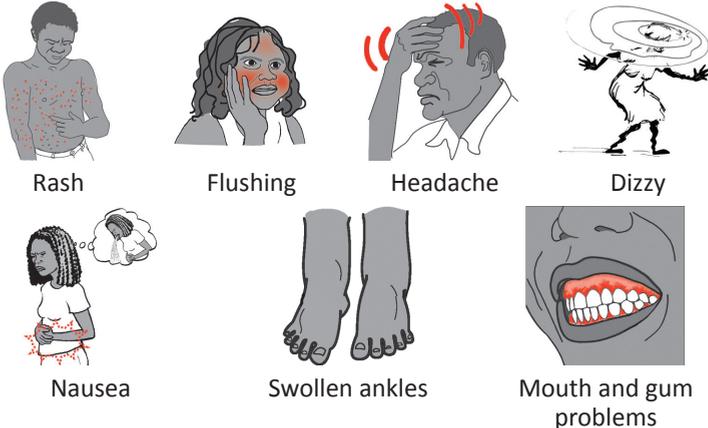
 <p>Warnings</p>	<ul style="list-style-type: none"> • Use under specialist advice if patient has bad reaction to ACE inhibitors <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Urgent medical consult if face and throat start to swell</p> </div>
<p>Interactions — Do not use together without medical consult IRBESARTAN or TELMISARTAN with</p> <ul style="list-style-type: none"> • NSAID (eg ibuprofen) 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take potassium supplements unless prescribed for you • Medicine may make you feel dizzy if you stand up quickly <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">   <p>Return to clinic straight away if swelling of the lips or mouth OR have trouble breathing</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p> </div> </div>
<p>Warning stickers (page 310): 11, 12, 16</p>	
<p>Check</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Blood pressure</p> </div> <div style="text-align: center;">  <p>Blood test</p> </div> </div> <p>Check kidney function and electrolytes (UEC) before starting THEN review 1-2 weeks. It can take 4 to 6 weeks for maximum effect on BP</p>

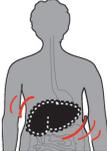
<p>Active ingredients (generic names)</p>	<p>ATROPINE (at-row-peen)</p>  <p>Other antiarrhythmics Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Adenosine • Amiodarone • Digoxin • Diltiazam • Disopyramide • Esmolol • Flecainide • Isoprenaline • Lidocaine (lignocaine) • Sotalol • Verapamil
<p>What it is used for</p>	<ul style="list-style-type: none"> • To increase a very slow heart rate (Life support — DRS ABC) • Organophosphate (eg insecticide) poisoning
<p>How it works</p>	<ul style="list-style-type: none"> • Helps to increase the heart rate when it is too slow by affecting receptors in the involuntary (parasympathetic) and central nervous systems • Blocks the uptake of some poisons (eg organophosphates), helps to reverse the effects
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Dry mouth</p> </div> <div style="text-align: center;">  <p>Flushing</p> </div> <div style="text-align: center;">  <p>Blurred vision</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Constipation</p> </div> <div style="text-align: center;">  <p>Fast pulse (heart rate)</p> </div> </div> <ul style="list-style-type: none"> • Difficult to wee / retention of urine • Bothered by bright light • Delirium

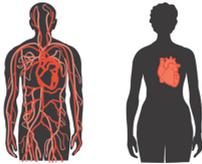
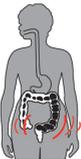
 <p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>ATROPINE with</p> <ul style="list-style-type: none"> • Phenylephrine
<p>Tell the patient</p> 	
<p>Check</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pulse (heart rate)</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

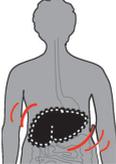
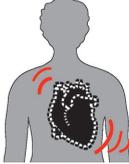
<p>Active ingredients (generic names)</p>	<p>ATENOLOL (a-ten-o-lol) BISOPROLOL (bis-o-pro-lol) CARVEDILOL (car-ve-dil-ole) METOPROLOL (me-toe-pro-lol) NEBIVOLOL (ne-biv-o-lol) LABETALOL (la-be-ta-lol)</p>  <p>Other beta-blockers Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Oxprenolol • Pindolol • Propranolol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chest pain (angina) • Chronic heart failure • Irregular heartbeat (arrhythmias) • Heart attack • Prevention of migraine • Lowering BP in <ul style="list-style-type: none"> ▶ Chronic kidney disease ▶ Coronary artery disease ▶ Hypertension (High BP) ▶ Hypertension (high BP) in pregnancy
<p>How it works</p>	<ul style="list-style-type: none"> • Beta receptors in heart increase BP and heart rate when activated • Beta-blockers <ul style="list-style-type: none"> ▶ Block these receptors to reduce workload of heart. Can also work in other parts of body ▶ Lower BP, slow heart, even out irregular heartbeats ▶ Lower risk of heart attacks, and death in people who have had heart attacks 
<p>Side effects</p>	<ul style="list-style-type: none"> • Coldness in fingers and toes <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea</p>  <p>Slow pulse (heart rate)</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p>  <p>Low BP</p> </div> <div style="text-align: center;">  <p>Breathing trouble</p>  <p>Sleepy</p> </div> </div>

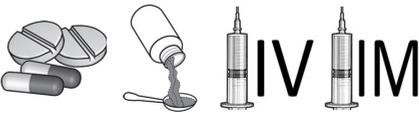
 <p>Warnings</p>	 <p>Pregnant Kidney trouble (atenolol) Liver trouble Asthma or chronic lung disease</p>  <p>If pulse less than 50/min — medical consult</p> <p>Slow pulse (heart rate)</p>
	<p>Interactions — Do not use together without medical consult</p> <p>BETA-BLOCKERS with</p> <ul style="list-style-type: none"> • Amiodarone • Digoxin • Diltiazem • Verapamil
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Medicine may make you feel dizzy if you stand up quickly  <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p>  <p>Do not drive or operate machinery if sleepy</p>
	<p>Warning stickers (page 310): Atenolol, nebivolol 9, 12 Bisoprolol, metoprolol 9, 12, A Carvedilol 9, 12, 13, 16</p>
<p>Check</p>	 <p>Blood pressure</p>  <p>Pulse (heart rate)</p>

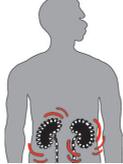
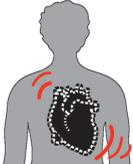
<p>Active ingredients (generic names)</p>	<p>AMLODIPINE (am-lo-di-peen) FELODIPINE (fe-lo-di-peen) LERCANIDIPINE (ler-can-i-di-peen) NIFEDIPINE (ni-fed-i-peen)</p>  <p>Combination medicines Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Calcium channel blocker + statin • Calcium channel blocker + ACE inhibitor
<p>What it is used for</p>	<ul style="list-style-type: none"> • Coronary artery disease (eg angina) • Hypertension (High BP) • High BP (hypertension) in chronic kidney disease • Preeclampsia (very high BP in pregnancy) (nifedipine) • Stopping labour (tocolysis) (nifedipine)
<p>How it works</p>	<ul style="list-style-type: none"> • Relaxes muscle in blood vessel walls to allow more blood to flow through — helps reduce high BP and angina • Relaxes muscles in uterus (in pregnancy) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Palpitations  <p>Rash Flushing Headache Dizzy</p> <p>Nausea Swollen ankles Mouth and gum problems</p>

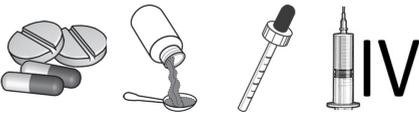
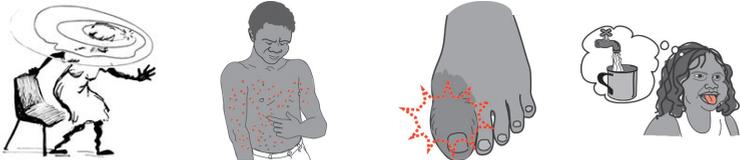
 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding (nifedipine appears safe)</p>  <p>Liver trouble</p>  <p>Heart failure</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <p>LERCANIDIPINE with</p> <ul style="list-style-type: none"> • Metoprolol <p>NIFEDIPINE with</p> <ul style="list-style-type: none"> • Digoxin — can be taken but must be closely monitored • IV magnesium <ul style="list-style-type: none"> • Do not drink grapefruit juice — can increase amount of medicine in your bloodstream and chance of getting side effects • Slow-release tablets (felodipine, nifedipine) must be swallowed whole • Medicine may make you dizzy, especially if you stand up quickly  <p>Do not drive or operate machinery if sleepy</p>  <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p> <p>Warning stickers (page 310): Amlodipine 9, 12 Felodipine 9, 12, 18, A Lercanidipine 9, 12, 18, C Nifedipine 9, 12, 13, 18, A</p>
<p>Check</p>	 <p>Blood pressure</p>

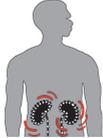
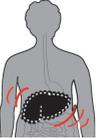
<p>Active ingredients (generic names)</p>	<p>DILTIAZEM (dil-ti-a-zem) VERAPAMIL (vera-pam-il)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preventing chest pain (angina) • Irregular heartbeat
<p>How it works</p>	<ul style="list-style-type: none"> • Relaxes muscle in the heart and blood vessels to allow more blood to flow through and decrease the heart rate and work the heart does -- helping to reduce high BP and angina 
<p>Side effects</p>	<div style="display: grid; grid-template-columns: repeat(4, 1fr); gap: 10px;"> <div style="text-align: center;">  <p>Constipation (verapamil)</p> </div> <div style="text-align: center;">  <p>Swollen ankles</p> </div> <div style="text-align: center;">  <p>Slow pulse (heart rate)</p> </div> <div style="text-align: center;">  <p>Low BP</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Rash, flushing</p> </div> </div>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding</p>  <p>Liver trouble</p>  <p>Heart failure</p>  <p>Slow pulse (heart rate)</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Diltiazem and verapamil interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine • Do not crush — swallow whole • Do not drink grapefruit juice — can increase amount of medicine (verapamil) in bloodstream and chance of getting side effects • Medicine may make you dizzy, especially if you stand up quickly  <p>Do not drink alcohol (grog) (verapamil)</p>  <p>Do not drive or operate machinery if sleepy</p>  <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p>
<p>Check</p>	 <p>Blood pressure</p>  <p>Pulse (heart rate)</p>
<p>Warning stickers (page 310): Diltiazem 5, 9, 12, A Verapamil 5, 9, 12, 13, 18, A, B</p>	

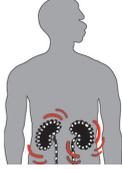
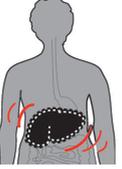
<p>Active ingredients (generic names)</p>	<p>DIGOXIN (di-jox-in)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chronic heart failure • Irregular heartbeat (atrial fibrillation)
<p>How it works</p>	<ul style="list-style-type: none"> • Makes heartbeat stronger • Slows heart to stop fluttery irregular heartbeat 
<p>Side effects</p>	<ul style="list-style-type: none"> • Loss of appetite (anorexia) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Blurred vision/ Coloured (yellow, green or white) haloes around objects</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Confusion</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Slow pulse (heart rate)</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Digoxin is a strong medicine. Problems can occur if patient given too much — check doses carefully <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>Thyroid problems</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Digoxin interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Make sure you tell other doctors and health people you are taking this medicine • Regular blood tests are needed <div style="text-align: center; margin-top: 20px;">  </div> <p style="text-align: center;">Return to clinic straight away if nausea, vomiting, anorexia (no appetite) — Signs of overdose</p>
<p>Check</p>	<p>Warning stickers (page 310): 5</p> <ul style="list-style-type: none"> • If using with a diuretic — check potassium, calcium and magnesium levels • Monitor digoxin levels as advised by doctor <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Pulse (heart rate)</p> </div> <div style="text-align: center;">  <p>Blood test</p> </div> </div> <p style="text-align: center;">Check kidney function (UEC) before starting medicine, then every 3–6 months</p>

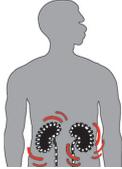
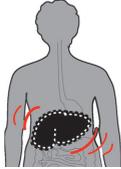
<p>Active ingredients (generic names)</p>	<p>FUROSEMIDE (FRUSEMIDE) (fur-rose-mide)</p>  <p>Other loop diuretics Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Bumetanide
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pulmonary oedema (fluid in lungs) • Chronic heart failure • Reducing fluid build up associated with heart, liver and kidney trouble
<p>How it works</p>	<ul style="list-style-type: none"> • Slows down reabsorption of sodium and chloride (salt) in kidneys to stop fluid accumulating, and removes excess fluid 
<p>Side effects</p>	<ul style="list-style-type: none"> • Risk of side effects increases as dose increases • Body salts (electrolytes) out of balance (eg low potassium, low magnesium) • Muscle weakness and cramps — from dehydration and low potassium  <p>Dizzy Rash Gout Dehydration</p>

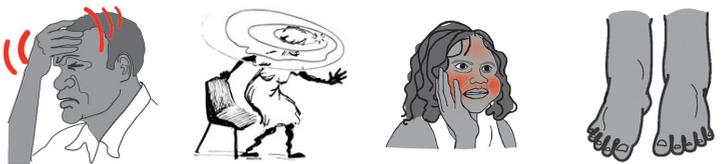
 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding</p>  <p>Old people</p>  <p>Kidney trouble</p>  <p>Liver trouble</p>  <p>Gout</p>  <p>Dehydration</p> <p>Interactions — Do not use together without medical consult FUROSEMIDE (FRUSEMIDE) with</p> <ul style="list-style-type: none"> • NSAIDs • ACE inhibitors • Aminoglycosides • ARBs • Lithium • Thiazide diuretics • SGLT2 inhibitors (eg Dapaglifozin)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take with NSAIDs (type of painkiller) • Might make you pee a lot, so take in morning. If taking twice a day take second dose at midday  <p>Take in the morning to reduce night time waking</p>  <p>Dizzy</p> <p>Warning stickers (page 310): 16, medicine mixture also 6, 7b</p>
<p>Check</p>	 <p>Weight</p>  <p>Blood pressure</p>  <p>Blood test</p> <p>Check kidney function and electrolytes (UEC) before starting medicine, then every 6–12 months</p>

<p>Active ingredients (generic names)</p>	<p>HYDRALAZINE (hi-dral-a-zeen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preeclampsia (very high BP in pregnancy) • High BP emergency • Heart failure
<p>How it works</p>	<ul style="list-style-type: none"> • Opens (dilates) blood vessels between arteries and veins (arterioles) to quickly drop BP
<p>Side effects</p>	<ul style="list-style-type: none"> • Palpitations <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Fast pulse (heart rate)</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Flushing</p> </div> <div style="text-align: center;">  <p>Swollen ankles</p> </div> </div>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Heart trouble</p>  <p>Kidney trouble</p>  <p>Liver trouble</p>
<p>Interactions — Do not use together without medical consult HYDRALAZINE with</p> <ul style="list-style-type: none"> • Other medicines that lower BP 	
<p>Tell the patient</p> 	 <p>Do not drive or operate machinery if dizzy or faint</p>
<p>Warning stickers (page 310): 12, 16</p>	
<p>Check</p>	 <p>Blood test if taking for more than 6 months — antinuclear antibodies (ANA), FBC before starting and during treatment</p>

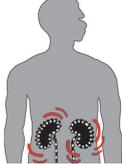
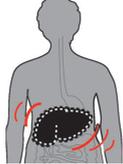
<p>Active ingredients (generic names)</p>	<p>METHYLDOPA (meth-il-do-pa)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Hypertension (high BP) in pregnancy • High BP in pregnant women with pre-existing diabetes
<p>How it works</p>	<ul style="list-style-type: none"> • Works in brain to send nerve signals which relax blood vessels — this reduces pressure of blood flow
<p>Side effects</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Sleepy</p> </div> <div style="text-align: center;">  <p>Dry mouth</p> </div> <div style="text-align: center;">  <p>Fever</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> </div>

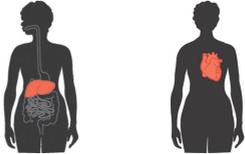
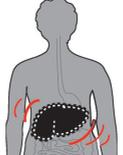
 <p>Warnings</p>	 <p>Kidney trouble</p>  <p>Liver trouble</p>  <p>Depression</p>
<p>Tell the patient</p> 	 <p>Do not drive or operate machinery if sleepy or dizzy</p> <ul style="list-style-type: none"> • Stand up slowly if they make you dizzy
<p>Check</p>	 <p>Blood test Check FBC, liver function tests (LFT) within 6–12 weeks of starting</p>

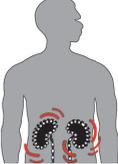
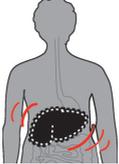
<p>Active ingredients (generic names)</p>	<p>GLYCERYL TRINITRATE (glis-er-al tri-nite-trate) ISOSORBIDE DINITRATE (i-so-sor-bide die-nie-trate) ISOSORBIDE MONONITRATE (i-so-sor-bide mon-o-nie-trate)</p>  <p>Common name: GTN, nitrates</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chest pain — acute • Chest pain — angina • Pulmonary oedema (fluid in lungs) • Doctor may ask for patch to be put on person with really high BP who needs to be sent to hospital
<p>How it works</p>	<ul style="list-style-type: none"> • Opens up blood vessels and reduces work heart has to do to pump blood • Glyceryl trinitrate spray and isosorbide dinitrate sublingual tablets and spray work fast to stop chest pain • Glyceryl trinitrate patches and isosorbide mononitrate tablets work slowly to prevent chest pain. They won't stop chest pain once it starts 
<p>Side effects</p>	<ul style="list-style-type: none"> • Palpitations  <p>Headache Dizzy Flushing Swollen ankles</p>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Low BP</p> <p>Interactions — Do not use together without medical consult</p> <p>NITRATES with</p> <ul style="list-style-type: none"> • Medicines for impotence (eg <i>sildenafil</i>) • Medicines for BP
<p>Tell the patient</p> 	<p>Slow acting</p> <ul style="list-style-type: none"> • Put patches on clean dry skin, on chest or upper arm <ul style="list-style-type: none"> ▶ Do not leave patches on all the time. Put on at night and take off in morning <i>OR</i> put on in morning and take off at night • Slow-release tablets must be swallowed whole. Only take 1 a day <p>Fast acting</p> <ul style="list-style-type: none"> • Sit or lie down when taking tablets or spray, then rest for 15–30 minutes, or you may get dizzy • Keep tablet bottle closed and in a cool place • Take isosorbide dinitrate tablets back to clinic 3 months after you open them (they will be out of date)  <p>Sublingual tablets — Do not swallow fast acting tablet. Put under tongue, spit out when chest pain stops — helps stop side effects</p>  <p>Return to clinic straight away if 2 doses in 10 minutes doesn't stop the pain. You may be having a heart attack</p> <p>Warning stickers (page 310): Glyceryl trinitrate 16 – patches also 13, 21 Isosorbide dinitrate 16 Isosorbide mononitrate 16, A</p>
<p>Check</p>	<ul style="list-style-type: none"> • Make sure person has fast-acting nitrate spray or tablets at home and knows how to use it  <p>Blood pressure</p>

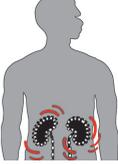
<p>Active ingredients (generic names)</p>	<p>SPIRONOLACTONE (spir-on-o-lac-tone)</p>  <p>Other aldosterone antagonists Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Eplerenone
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chronic heart failure in combination with other medicines
<p>How it works</p>	<ul style="list-style-type: none"> • Aldosterone is one of the hormones in the kidney that works to control BP and keep kidney working. Too much aldosterone upsets balance of hormones and causes fluid build up, increases BP • Spironolactone works against aldosterone and balances hormones 
<p>Side effects</p>	<ul style="list-style-type: none"> • Muscle weakness due to hyponatraemia (sodium too low) • Breast pain • Hyperkalaemia (potassium too high) <ul style="list-style-type: none"> ▸ Signs are: slow heartbeat, muscle twitch, numbness, sore head, nausea, vomiting  <p>Headache</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult SPIRONOLACTONE with</p> <ul style="list-style-type: none"> • NSAIDs • Potassium • Trimethoprim • Digoxin
<p>Check</p>	<p>Warning stickers (page 310): 11, 12, 16, B</p> <div style="text-align: center; margin-top: 20px;">  <p>Blood test</p> </div> <p>Check potassium levels frequently when starting, check how often with Doctor and add to recall</p>

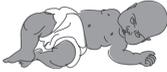
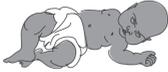
<p>Active ingredients (generic names)</p>	<p>ATORVASTATIN (a-tor-va-sta-tin) ROSUVASTATIN (row-soo-va-sta-tin) SIMVASTATIN (sim-va-sta-tin)</p>  <p>Common name: statins Other statins Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Fluvastatin • Pravastatin <p>Combination medicines Not included in this monograph — see <i>AMH</i> for information or separate monograph</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Managing cardiovascular risk and abnormal blood fats • Reducing risk of heart attack in coronary artery disease
<p>How it works</p>	<ul style="list-style-type: none"> • Stops liver making too much cholesterol. Cholesterol can block blood vessels and cause heart attack or stroke 
<p>Side effects</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;">  <p>Sore muscles</p> </div> <div style="text-align: center; margin: 10px;">  <p>Nausea</p> </div> <div style="text-align: center; margin: 10px;">  <p>Dizzy</p> </div> <div style="text-align: center; margin: 10px;">  <p>Trouble sleeping</p> </div> <div style="text-align: center; margin: 10px;">  <p>Headache</p> </div> <div style="text-align: center; margin: 10px;">  <p>Liver trouble — Medicine can cause a change in liver function</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Liver trouble — use lower dose (rosuvastatin)</p> </div> </div>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Statins interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine • Important to exercise and eat low fat food as well as taking tablets • Will need regular blood tests to make sure medicine is working and there are no side effects • If taking atorvastatin or simvastatin — do not drink grapefruit juice. Can increase amount of medicine in bloodstream and chance of getting side effects <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not stop taking medicine — you may not feel different, but medicine will help stop heart attack and stroke</p> </div> <div style="text-align: center;">  <p>Take at night (simvastatin)</p> </div> <div style="text-align: center;">  <p>Return to clinic if you get sore or tired muscles OR your urine is dark</p> </div> </div>
	<p>Warning stickers (page 310): Atorvastatin, simvastatin 18</p>
<p>Check</p>	<div style="text-align: center;">  <p>Blood test</p> <p>Check LFT and CK before starting medicine, repeat if indicated clinically</p> </div>

<p>Active ingredients (generic names)</p>	<p>INDAPAMIDE (in-dap-a-mide) HYDROCHLOROTHIAZIDE + IRBESARTAN (hy-dro-chlo-ro-thi-a-zide + ir-be-sar-tan) INDAPAMIDE + PERINDOPRIL (in-dap-a-mide + per-in-doe-pril)</p>  <p>Other thiazide diuretics Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Chlorthalidone • Hydrochlorothiazide (HCT) <p>Combination medicines Not included in this monograph — see <i>AMH</i> for information or separate monographs:</p> <ul style="list-style-type: none"> • Enalapril + HCT • Fosinopril + HCT • Quinapril + HCT <p>Other ARB & thiazide diuretic combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Candesartan + HCT • Eprosartan + HCT • Olmesartan + HCT • Telmisartan + HCT • Valsartan + HCT
<p>What it is used for</p>	<ul style="list-style-type: none"> • High BP (hypertension) • Reducing fluid build up caused by heart failure or kidney problems
<p>How it works</p>	<ul style="list-style-type: none"> • In low doses — opens up blood vessels to lower BP • In high doses — helps kidneys to remove extra fluid from body  
<p>Side effects</p>	<ul style="list-style-type: none"> • The higher the dose the greater the risk of side effects • Weak muscles or cramps • Body salts (electrolytes) out of balance (eg low potassium, low magnesium)  <p>Dizzy</p>  <p>Dehydration</p>

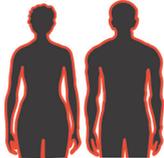
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Gout</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Slow-release tablets must be swallowed whole • You may wee more to start but this will be much better after a few days <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Take in the morning to reduce night time waking</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> </div>
<p>Check</p>	<div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Blood test</p> <p>Check BGL and kidney function and electrolytes (UEC) before starting medicine, then every 6–12 months</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

<p>Active ingredients (generic names)</p>	<p>BENZYL BENZOATE (benz-el benz-o-ate) CROTAMITON (crow-ta-mi-ton) PERMETHRIN (per-meth-rin)</p>  <p>Common name: scabies medicines</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Chickenpox — for itch (crotamiton) • Crusted scabies (benzyl benzoate, permethrin) • Scabies (benzyl benzoate, permethrin)
<p>How it works</p>	<ul style="list-style-type: none"> • Kills the mites
<p>Side effects</p>	<ul style="list-style-type: none"> • Stings when first applied (benzyl benzoate)  <p>Itchy rash and swelling — may get worse before it gets better</p>

 <p>Warnings</p>	 <p>Babies under 2 months (permethrin)</p>  <p>Babies under 6 months (benzyl benzoate)</p>  <p>Old people (benzyl benzoate)</p> <ul style="list-style-type: none"> • Do not put crotamiton on whole body of children under 3 years and only use once a day • Dilute benzyl benzoate with water before applying to children <ul style="list-style-type: none"> ▶ Children 6–23 months — 3 parts water to 1 part benzyl benzoate ▶ Children 2–12 years and sensitive adults — equal parts water and benzyl benzoate • Test benzyl benzoate on small area of skin first — wait for 10 minutes
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Apply on dry skin of whole body excluding face and head and wash off after 8-14 hours (permethrin) 24 hours (benzyl benzoate) with warm soapy water, rinse thoroughly • Do not use on eyes, lips, mouth or inside nose • If scabies rash is still itchy after applying benzyl benzoate or permethrin cream — use soothing cream (eg sorbolene) • Permethrin and benzyl benzoate — repeat treatment after 7 days • Wash clothes and bed linen in hot water and hang to dry in the sun  <p>Return to clinic if still itchy in 2–3 weeks</p>  <p>Treat all people living in the house</p>
<p>Check</p>	<ul style="list-style-type: none"> • If patient immunocompromised or on immunosuppressants they are more susceptible to crusted scabies

<p>Active ingredients (generic names)</p>	<p>DIMETICONE (di-met-i-cone)</p>  <p>Common name: head lice treatment</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Head lice (nits)
<p>How it works</p>	<ul style="list-style-type: none"> • Kills the lice by affecting its ability to regulate water balance • Does not kill eggs 
<p>Side effects</p>	<ul style="list-style-type: none"> • Skin discolouration  <p>Itch</p>

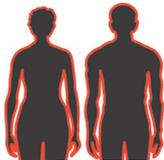
 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not get on eyes, mouth, inside nose
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Treatment for adults and children is the same • For lotion — completely cover dry hair, allow to dry, leave on overnight • For fast-acting gel spray — completely cover dry hair, leave on for at least 15 minutes • Wash out, then use fine tooth comb to remove eggs and dead lice • Wash clothes and bed linen in hot water (60°C) and hang to dry in sun • Repeat treatment after 7 days • Remove lice between treatments using ordinary hair conditioner on dry hair and fine tooth comb <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Treat all people living in the house</p> </div> <div style="text-align: center;">  <p>Return to clinic if still itchy in 2–3 weeks</p> </div> </div>
<p>Check</p>	

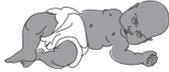
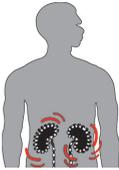
<p>Active ingredients (generic names)</p>	<p>HYDROCORTISONE (hy-dro-cor-ti-sone)</p>  <p>Other corticosteroids Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Betamethasone • Desonide • Methylprednisolone • Mometasone • Triamcinolone • Clobetasone <p>Corticosteroid combinations</p> <ul style="list-style-type: none"> • Topical corticosteroids can be combined with topical antifungals
<p>What it is used for</p>	<ul style="list-style-type: none"> • Severe nappy rash • Inflammation of the skin
<p>How it works</p>	<ul style="list-style-type: none"> • Helps to reduce redness (inflammation) and itching from various skin conditions. Some brands are stronger than others 
<p>Side effects</p>	<ul style="list-style-type: none"> • Short term use — usually none • Long term use — skin damage can occur

 <p>Warnings</p>	<ul style="list-style-type: none"> • Diabetes — apply enough to cover the affected area and use for the shortest time possible • Make sure area to be treated is not infected • Use lowest strength to treat first <i>OR</i> use higher strength for shortest time • In children use higher strength for a shorter time • Do not use on face unless advised by doctor (hydrocortisone) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Children under 2 years (Hydrocortisone)</p> </div> <div style="text-align: center;">  <p>Children under 12 years</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than a short time (over a week)</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Use a small amount — not like moisturiser • Use moisturisers as well (eg sorbolene) • If using long term (greater than 14 days) — return to clinic for review
<p>Check</p>	<ul style="list-style-type: none"> • Try to find underlying cause of skin rash (eg fungal infection)

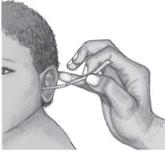
<p>Active ingredients (generic names)</p>	<p>PODOPHYLLOTOXIN (po-do-fill-o-toxin) Other medicines for warts Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Podophyllum resin • Salicylic acid
<p>What it is used for</p>	<ul style="list-style-type: none"> • Genital warts
<p>How it works</p>	<ul style="list-style-type: none"> • Stops spread of warts to other areas of body and to other people
<p>Side effects</p>	<div data-bbox="370 1394 473 1557" data-label="Image"> </div> <p>Itchy, burning</p>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding</p>  <p>Children under 2 years</p> <ul style="list-style-type: none"> • Do not use on broken skin
<p>Tell the patient</p> 	 <p>Wash hands (before and after use)</p> <ul style="list-style-type: none"> • Wash skin with soap and water and let dry before applying • Do not use on or near hairline, eyes, ears, nose or lips — unless doctor tells you to • Apply with applicator to wart only, can burn skin
<p>Check</p>	<p>Warning stickers (page 310): K</p>  <p>Return to clinic if not getting better <i>OR</i> symptoms come back</p>

<p>Active ingredients (generic names)</p>	<p>NANOCRYSTALLINE SILVER DRESSING (nan-no-cris-ta-line sil-ver) SILVER SULFADIAZINE (sil-ver sul-fa-di-a-zeen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Partial thickness burns at risk of infection <ul style="list-style-type: none"> ▸ Use dressing if available, rather than ointment/cream • Treating infected leg ulcers and pressure sores
<p>How it works</p>	<ul style="list-style-type: none"> • Stops bacteria from growing on damaged skin 
<p>Side effects</p>	<ul style="list-style-type: none"> • Skin discolouration  <p>Itchy, swelling, redness</p>

 <p>Warnings</p>	 <p>Pregnant — late term (sulfadiazine)</p>  <p>Babies under 6 months — medical or burns unit consult (sulfadiazine)</p>  <p>Kidney trouble</p>  <p>Medical consult if needed for more than a short time OR if burn infected</p> <ul style="list-style-type: none"> • Allergy to sulfonamides • For ointment/cream (not dressing) <ul style="list-style-type: none"> ▶ ONLY use for deep burns ▶ Do not use on burns being sent to hospital. Makes it hard to assess burn and delays further treatment ▶ Do not use same tube/container for more than 1 person
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Burns and ulcers must be cleaned and have dressings changed regularly • Do not wash cream off with soap — use normal saline • May darken or discolour skin  <p>Return to clinic if wound doesn't heal</p>
<p>Check</p>	<ul style="list-style-type: none"> • Procedure for silver coated dressing

<p>Active ingredients (generic names)</p>	<p>DEXAMETHASONE + FRAMYCETIN + GRAMICIDIN (dex-a-meth-a-son-e + fra-my-cet-in + gram-i-ci-din) TRIAMCINOLONE + NEOMYCIN + NYSTATIN + GRAMICIDIN (tri-am-sin-o-lone + ne-o-my-sin + ny-stat-in + gram-i-ci-din)</p>  <p>Other antibacterial + steroid combinations Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Flumethasone + clioquinol (eg <i>Locacorten Vioform</i>) • Hydrocortisone + ciprofloxacin (eg <i>Ciproxin HC</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Inflammation of the ear canal (otitis externa)
<p>How it works</p>	<ul style="list-style-type: none"> • Kills germs causing ear infection, reduces inflammation 
<p>Side effects</p>	<ul style="list-style-type: none"> • May cause redness (dermatitis) in ear if used for long time

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use if eardrum has a hole (perforation)  <p>Medical consult if needed for more than a short time (over a week)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not touch ear with tip of bottle when putting in drops <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Use plastic top to squeeze drops out, if any unused drops 28 days after opening — take bottle back to clinic</p> </div> <div style="text-align: center;">  <p>Dry mop ears — drops work best if pus is cleaned out of ears first by dry mopping</p> </div> <div style="text-align: center;">  <p>Return to clinic if you still have discharge after 5–7 days OR you have ringing in your ears, hearing loss, or feel unsteady</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Check drops not used for more than 5–7 days and any left over is returned to clinic • If discharge continues — ENT specialist consult

<p>Active ingredients (generic names)</p>	<p>CIPROFLOXACIN (sip-row-flox-a-sin)</p>  <p>Ciprofloxacin and steroid combination drops Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Hydrocortisone + ciprofloxacin (eg <i>Ciproxin HC</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Ear infection <ul style="list-style-type: none"> ▶ Acute otitis media with perforation ▶ Ongoing ear infection with discharge (chronic suppurative otitis media) ▶ Inflammation of ear canal (otitis externa) • Discharging grommets
<p>How it works</p>	<ul style="list-style-type: none"> • Antibiotic that stops bacteria from making DNA
<p>Side effects</p>	<ul style="list-style-type: none"> • May cause skin irritation

 <p>Warnings</p>	 <p>Medical consult if hole in ear drum (perforation) or grommets</p>
<p>Tell the patient</p> 	 <p>Dry mop ears — drops work best if pus is cleaned out of ears first by dry mopping</p> <ul style="list-style-type: none"> • Shake bottle before using • Avoid touching ear with tip of bottle or dropper • Keep bottle away from light • If any unused drops 28 days after opening — take bottle back to clinic
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>DOCUSATE (doc-u-sate) SODIUM BICARBONATE SOLUTION</p>  <p>Other wax softeners Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Carbamide peroxide • Dichlorobenzene + chlorbutanol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Softening wax before removal
<p>How it works</p>	<ul style="list-style-type: none"> • Softens wax so it is easier to clean or drain from ear 
<p>Side effects</p>	<ul style="list-style-type: none"> • May cause irritation or itch in ear

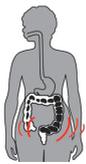
 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use if sore, red ears or hole (perforation) in eardrum
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not use cotton buds in the ears, they push the wax further down  <p>Return to clinic Use for 2 days then come to clinic to have ears syringed</p>
<p>Check</p>	

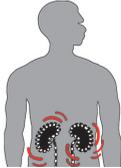
<p>Active ingredients (generic names)</p>	<p>OXYMETAZOLINE (ox-ee-me-taz-o-leen) XYLOMETAZOLINE (zy-low-me-ta-zo-leen)</p>  <p>Other nasal decongestants Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Ephedrine • Phenylephrine • Tramazoline
<p>What it is used for</p>	<ul style="list-style-type: none"> • Colds • Hayfever • Sinus problems
<p>How it works</p>	<ul style="list-style-type: none"> • Narrows swollen blood vessels in nose to open up blocked nose • Dries up runny nose 
<p>Side effects</p>	<ul style="list-style-type: none"> • Might sting when first put in • Nasal discharge may increase when first used • If used for more than 4–5 days — nose may become blocked again and be worse than before (rebound congestion)

 <p>Warnings</p>	 <p>Do not give to children under 6 years. Only give to children 6–11 years if told to by doctor or pharmacist</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not use for more than 5 days without talking to doctor • Try using saline drops for children with blocked noses • How to use nose drops <ul style="list-style-type: none"> ▶ Blow nose, tip head back and put drops in nose while sniffing gently. Repeat with other nostril. Keep head back for a few minutes ▶ For children (if advised by doctor or pharmacist) — lay child on lap with head tilted back and down, put drops in nose ▶ Rinse dropper after use, don't share with other people • How to use nasal spray <ul style="list-style-type: none"> ▶ Blow nose, shake bottle, put nozzle just inside nostril aiming towards outside wall while blocking the other nostril ▶ Squirt 1–2 times while sniffing gently. Repeat in other nostril <p>Note: May need to be primed, check manufacturer's instructions</p>
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>PHENYLEPHRINE (fen-il-eff-rin)</p>  <p>Combinations</p> <ul style="list-style-type: none"> • Used in some cold and flu tablets
<p>What it is used for</p>	<ul style="list-style-type: none"> • Colds • Hayfever • Sinus problems
<p>How it works</p>	<ul style="list-style-type: none"> • Narrows swollen blood vessels in nose to open up blocked nose • Dries up runny nose 
<p>Side effects</p>	 <p>Can increase BP Shaking, nervous Dizzy Trouble sleeping</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Do not give to children under 6 years. Only give to children 6–11 years if told to by doctor or pharmacist</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>High BP</p> </div> </div> <p>Interactions — Do not use together without medical consult PHENYLEPHRINE with</p> <ul style="list-style-type: none"> • Atropine (IV or 10% eye drops)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not use for more than 4 days • Do not give to children under 12 unless the doctor tells you to
<p>Check</p>	 <p>Blood pressure</p>

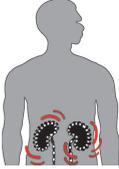
<p>Active ingredients (generic names)</p>	<p>CALCITRIOL (cal-cit-ree-ol)</p>  <p>Other vitamin D substances Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Colecalciferol • Ergocalciferol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Low vitamin D levels, especially if chronic kidney disease • With calcium to treat weak bones
<p>How it works</p>	<ul style="list-style-type: none"> • Helps make bones stronger by increasing absorption of calcium and phosphate from intestines, and reducing loss from kidneys 
<p>Side effects</p>	<ul style="list-style-type: none"> • If level of calcium in blood is too high (hypercalcaemia) <ul style="list-style-type: none"> ▶ Frequent urination (weeing a lot) — early warning sign ▶ Other signs: <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Constipation</p> </div> <div style="text-align: center;">  <p>Sleepy</p> </div> <div style="text-align: center;">  <p>Thirsty</p> </div> <div style="text-align: center;">  <p>Sweating</p> </div> </div>

 <p>Warnings</p>	 <p>Kidney trouble</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult CALCITRIOL with</p> <ul style="list-style-type: none"> • Calcium — needs careful monitoring • Digoxin — needs careful monitoring • Thiazide diuretics — needs careful monitoring <p>• Do not take supplements that contain calcium or vitamin D unless prescribed by a doctor — risk of too much calcium (hypercalcaemia)</p>  <p>Return to clinic if nausea, vomiting, constipation, headache, thirst or tiredness</p> <p>Warning stickers (page 310): 5</p>
<p>Check</p>	 <p>Blood test Check calcium and phosphate levels every 3 months</p>

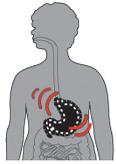
<p>Active ingredients (generic names)</p>	<p>CALCIUM CARBONATE (cal-see-um car-bo-nate) CALCIUM GLUCONATE (cal-see-um glue-co-nate)</p>  <p>Other calcium salts Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Calcium chloride • Calcium citrate <p>Calcium combinations</p> <ul style="list-style-type: none"> • Calcium is in many vitamin supplements and antacids
<p>What it is used for</p>	<ul style="list-style-type: none"> • Calcium deficiency, osteoporosis, other bone diseases • Life threatening heart arrhythmias (eg patients who have missed dialysis) (calcium gluconate) • Magnesium overdose (eg when treating severe preeclampsia) (calcium gluconate) • Reducing phosphate levels in chronic kidney disease (CKD) • Can be an ingredient in antacids
<p>How it works</p>	<ul style="list-style-type: none"> • Replaces calcium if deficient in body • Calcium binds to phosphate in stomach and stops it being absorbed by body. This reduces high phosphate levels 
<p>Side effects</p>	 <p>Wind (burping and farting)</p> <ul style="list-style-type: none"> • If calcium in blood too high (hypercalcaemia) <ul style="list-style-type: none"> ▶ Passing urine more often than usual (frequency) ▶ Other signs:  <p>Nausea</p>  <p>Headache</p>  <p>Constipation</p>  <p>Sleepy</p>  <p>Thirsty</p>  <p>Sweating</p>

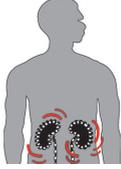
 <p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>CALCIUM CARBONATE or CALCIUM GLUCONATE with</p> <ul style="list-style-type: none"> • Digoxin — needs careful monitoring • Iron tablets, doxycycline, alendronate, sotalol, ciprofloxacin — can take 2 hours before or after calcium tablets • Thyroxine tablets — can take 4 hours before or after calcium tablets
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If taking for kidney trouble and you skip a meal, skip calcium tablets too • If taking calcium for bone trouble <ul style="list-style-type: none"> ▶ Take at night (bedtime) so more will be absorbed into bones ▶ Tell doctor or health worker if you become pregnant or finish menopause as dose may need to be changed <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Return to clinic if nausea, vomiting, constipation, headache, thirst or tiredness</p> </div> <div style="text-align: center;">  <p>Take with food or milk if kidney trouble</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Tablets come in different forms — some can be chewed, some need to be swallowed whole, some are dissolved in water. Make sure person understands how to take theirs <div style="text-align: center;">  <p>Blood test Regular checks for calcium and phosphate levels</p> </div>

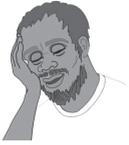
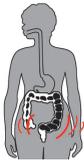
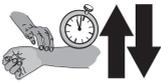
<p>Active ingredients (generic names)</p>	<p>DULAGLUTIDE (dew-lag-loo-tide) SEMAGLUTIDE (sem-a-gloo-tide)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Type 2 diabetes • Metabolic syndrome in non-diabetics
<p>How it works</p>	<ul style="list-style-type: none"> • Acts like (mimics) a hormone (GLP-1) that releases insulin into body after a meal, and slows down glucose absorption • Delays stomach emptying after a meal and reduces appetite
<p>Side effects</p>	<ul style="list-style-type: none"> • Blood glucose too low (hypoglycaemia or 'hypo') <ul style="list-style-type: none"> ▶ More likely to happen if patient is not eating enough food or dose too high or combination with other medicines for diabetes specially with insulin + sulfonylureas ▶ Warning signs — sweating, hunger, shaking (tremor), confusion, loss of consciousness <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Stomach trouble (pancreatitis)</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Stomach trouble — pancreatitis and gall bladder disease</p> </div> </div>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult DULAGLUTIDE or SEMAGLUTIDE with</p> <ul style="list-style-type: none"> • Other blood glucose lowering medicines — may increase risk of hypo (hypoglycaemia) <ul style="list-style-type: none"> • Inject once a week, ideally on the same day each week • What to do if they have a hypo, and to come to the clinic straight away if treatment doesn't work <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Eat healthy food</p> </div> <div style="text-align: center;">  <p>Exercise every day</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 6 Dulaglutide also 7b (14 days), 13 Semaglutide also 7b (42 days), 10a, 20, 21</p> <ul style="list-style-type: none"> • Are combined checks for chronic conditions up to date
	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Blood test Check kidney function (UEC)</p> </div> <div style="text-align: center;">  <p>Regular blood glucose (BGL) tests</p> </div> </div>

Endocrine (diabetes, thyroid, calcium regulation)

<p>Active ingredients (generic names)</p>	<p>LINAGLIPTIN (lin-a-glip-tin) SAXAGLIPTIN (sax-a-glip-tin) SITAGLIPTIN (si-ta-glip-tin) VILDAGLIPTIN (vil-da-glip-tin) ALOGLIPTIN (alo-glip-tin)</p>  <p>Common name: Gliptins DPP 4 combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Linagliptin + metformin (eg <i>Trajentamet</i>) • Sitagliptin + metformin (eg <i>Janumet, Janumet XR</i>) • Vildagliptin + metformin (eg <i>Galvumet</i>) • Alogliptin + metformin (eg <i>Nesina Met</i>) • Saxagliptin + dapagliflozin (eg <i>Qtern</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Type 2 diabetes
<p>How it works</p>	<ul style="list-style-type: none"> • Increases concentration of a hormone (GLP-1) that releases insulin into body after a meal, slows down glucose absorption
<p>Side effects</p>	<ul style="list-style-type: none"> • Muscle pain  <p>Headache</p>  <p>Stomach trouble (pancreatitis)</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Kidney trouble (not linagliptin)</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <p>GLIPTINS with</p> <ul style="list-style-type: none"> • ACE inhibitors — need to be closely monitored • Other blood glucose lowering medicines — may increase risk of hypo (hypoglycaemia)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take more than 1 aspirin tablet a day unless the doctor tells you to • If symptoms of hypoglycaemia (low blood sugar level) sweating, hunger, shaking (tremor), confusion, loss of consciousness — take some sugar in fruit juice or other sugary drink, honey or lollies. Return to clinic if feeling unwell. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Eat healthy food</p> </div> <div style="text-align: center;">  <p>Exercise every day</p> </div> <div style="text-align: center;">  <p>Take combination tablets (+ metformin) with or after food or milk so medicine won't make you feel sick</p> </div> </div> <p>Warning stickers (page 310): 10a</p>
<p>Check</p>	<ul style="list-style-type: none"> • Are combined checks for chronic conditions up to date

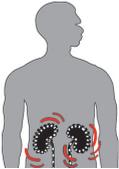
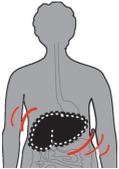
<p>Active ingredients (generic names)</p>	<p>GLUCAGON (glue-ca-gon)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Reversing low blood glucose <ul style="list-style-type: none"> ▶ Low blood glucose (hypoglycaemia) ▶ Low blood glucose in newborn babies
<p>How it works</p>	<ul style="list-style-type: none"> • Increases blood glucose by causing liver to make more glucose and slow digestion 
<p>Side effects</p>	<p>If swollen face and throat make it hard to breathe — think of allergy</p>  <p>Nausea and vomiting</p>  <p>Allergic reaction</p> <ul style="list-style-type: none"> • Large doses of glucagon can lead to low blood potassium levels (hypokalaemia). This causes many side effects <ul style="list-style-type: none"> ▶ Muscle weakness (low potassium) ▶ Other signs:  <p>Fatigue</p>  <p>Constipation</p>  <p>Irregular pulse (heart rate)</p>

 <p>Warnings</p>	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Make sure you always know where your glucagon is • Make sure any person who may need to give glucagon knows how and when to give it • It will take about 10 minutes for you to respond to the glucagon <ul style="list-style-type: none"> ▶ Have a light meal (eg sandwich or some stew) as soon as you can to stop the hypo coming back ▶ If they want more information — see Hypoglycaemia (low blood glucose)
<p>Check</p>	

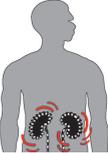
<p>Active ingredients (generic names)</p>	<p>INSULIN (in-su-lin)</p> <ul style="list-style-type: none"> • INSULIN — LONG-ACTING or INTERMEDIATE (basal) Glargine 100 units/mL (eg <i>Optisulin</i>), 300 units/mL (eg <i>Toujeo</i>) Isophane (eg <i>Humulin NPH, Protaphane</i>), Detemir (eg <i>Levemir</i>) • INSULIN — SHORT or RAPID ACTING (bolus) Neutral (eg <i>Actrapid, Humulin</i>) Aspart (eg <i>NovoRapid</i>), Glulisine (eg <i>Apidra</i>), Lispro (eg <i>Humalog</i>), faster-acting insulin aspart (eg <i>Fiasp</i>) • INSULIN — MIXED, ANALOGUES (biphasic) (eg <i>Humalog Mix 25, Humulin 30/70, Mixtard 30/70, NovoMix 30</i>) Insulin aspart + degludec (eg <i>Ryzodeg</i>)  <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>There are different forms of insulin. If you are not sure which form patient is taking — ask doctor or diabetes educator</p> </div>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Type 1 and Type 2 diabetes • Diabetes in pregnancy
<p>How it works</p>	<ul style="list-style-type: none"> • Natural insulin is a hormone made by the pancreas <ul style="list-style-type: none"> ▶ Helps glucose in the blood enter body cells to be used as energy ▶ Helps store excess glucose in the liver or muscles • Insulin (medicine) replaces natural insulin and helps control blood glucose levels in people with diabetes <ul style="list-style-type: none"> ▶ In Type 1 diabetes — body doesn't make insulin ▶ In Type 2 diabetes — body is insulin resistant and doesn't make or use insulin well 
<p>Side effects</p>	<ul style="list-style-type: none"> • Blood glucose too low (hypoglycaemia or 'hypo') <ul style="list-style-type: none"> ▶ More likely to happen if person not eating enough food or dose too high or combination with other medicines for diabetes ▶ Warning signs: sweating, hunger, shaking (tremor), confusion, loss of consciousness  <p style="text-align: center;">Weight gain</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • More insulin may be needed when person is sick (eg infection), even if not eating much • Medical consult if person has a hypo — medical/diabetes educator consult <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • A lot of medicines affect blood glucose and will affect how well insulin works — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Injections can be given in abdomen or thigh <ul style="list-style-type: none"> ▶ Injections in abdomen are more evenly absorbed ▶ Use different place each time to stop skin getting sore ▶ Use new needle each time, put old needle in sharps container • Pre-mixed and intermediate insulins — gently mix first (not <i>Ryzodeg</i>) • Do not inject rapid insulin if not eating • Rapid or short acting, or mixed insulin — eat straight after injection • Most insulins must be given at the same time each day (not <i>Ryzodeg</i>) • If insulin not kept in fridge use-by/expiry date will be sooner, it won't work as well <ul style="list-style-type: none"> ▶ Take any left after 1 month back to clinic — it will be out of date <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Store in fridge (not freezer)</p> </div> <div style="text-align: center;">  <p>Eat healthy food</p> </div> <div style="text-align: center;">  <p>Exercise every day</p> </div> </div> <div style="text-align: center; margin-top: 10px;">  <p>Do not drink alcohol (grog) Drinking alcohol makes you more likely to have a hypo, and less likely to know you are having one</p> </div>
<p>Warning stickers (page 310): 6 (except vial in use), 7b (28 days), 10a</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Are combined checks for chronic diseases up to date • Does patient or carer know how to give injection (see pamphlet inside insulin box or ask for advice) • Does patient (and carer, friends and family) know what to do if they have a hypo, and to come to clinic straight away if treatment doesn't work <div style="display: flex; align-items: center; margin-top: 10px;">  <div style="margin-left: 10px;"> <p>Regular blood glucose (BGL) tests</p> </div> </div>

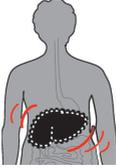
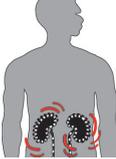
<p>Active ingredients (generic names)</p>	<p>METFORMIN (met-for-min)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Type 2 diabetes — alone or in combination with other blood glucose controlling medicines
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces glucose made by liver and causes more glucose to be used in other tissues • Can take 2 weeks to start working 
<p>Side effects</p>	<ul style="list-style-type: none"> • Lactic acidosis — rare but serious. Occurs mainly in patients with kidney trouble or heart failure <ul style="list-style-type: none"> ▸ Early symptoms — stomach cramps, nausea, vomiting, losing weight, feeling really bad, loss of appetite • Body absorbs less vitamin B12 <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea is worse if dose increased too quickly</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Severe illness or trauma <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Heart failure</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • A lot of medicines affect blood glucose and will affect how well metformin works — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take more than 1 aspirin tablet a day, unless the doctor tells you to • You can cut tablets in half if they have a line on them — but do not cut, crush or chew slow-release tablets • If you stop taking tablets for more than 2 weeks — talk to clinic about starting again slowly so it won't make you sick <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine suddenly</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Eat healthy food</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> <div style="text-align: center;">  <p>Exercise every day</p> </div> </div>
	<p>Warning stickers (page 310): 10a, A, B</p>
<p>Check</p>	<ul style="list-style-type: none"> • Are combined checks for chronic diseases up to date

<p>Active ingredients (generic names)</p>	<p>DAPAGLIFLOZIN (dap-a-glif-lo-zin) EMPAGLIFLOZIN (emp-a-glif-lo-zin) ERTUGLIFLOZIN (ert-u-glif-lo-zin) Common name: SGLT2 inhibitors MOA tablets MOA slow-release medicine SGLT2 inhibitor combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Dapagliflozin + metformin (eg <i>Xigduo XR</i>) • Saxagliptin + dapagliflozin (eg <i>Qtern</i>) • Empagliflozin + linagliptin (eg <i>Glyxambi</i>) • Empagliflozin + metformin (eg <i>Jardimet</i>) • Ertugliflozin + metformin (eg <i>Segluromet</i>) • Ertugliflozin + sitagliptin (eg <i>Steglujan</i>)
<p>What it is used for</p>	<p>Type 2 diabetes</p>
<p>How it works</p>	<ul style="list-style-type: none"> • Lowers blood glucose levels by blocking glucose reabsorption in the kidney. It does this by inhibiting sodium-glucose co-transporter 2 which increases glucose excretion into the urine
<p>Side effects</p>	<ul style="list-style-type: none"> • Frequent urination (weeing a lot) • Urinary tract and genital infections • Ketoacidosis — excessive thirst, nausea, vomiting, abdominal pain, feeling really bad, hard to breathe <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Dehydration</p> </div> </div>

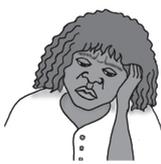
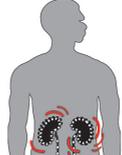
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <p style="text-align: right; color: red;">Medical consult if person has a hypo — medical/diabetes educator consult</p> <p>Interactions — Do not use together without medical consult SGLT2 inhibitors with</p> <ul style="list-style-type: none"> • Diuretics, particularly loop diuretics — needs to be closely monitored • Other blood glucose lowering medicines — may increase risk of hypo (hypoglycaemia)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not take more than 1 aspirin tablet a day, unless the doctor tells you to • If nausea, vomiting, abdominal pain, thirst or tiredness — return to clinic • What to do if they have a hypo, and to come to clinic straight away if treatment doesn't work <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> <div style="text-align: center;">  <p>Eat healthy food</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Exercise every day</p> </div> <div style="text-align: center;">  <p>Drink lots of water</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 10a, 16, 21, A</p> <ul style="list-style-type: none"> • Are combined checks for chronic diseases up to date
<p>Check</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Blood test Check kidney function (UEC)</p> </div> <div style="text-align: center;">  <p>Regular blood glucose (BGL) tests</p> </div> </div>

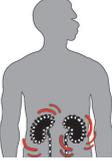
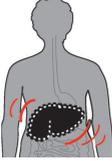
<p>Active ingredients (generic names)</p>	<p>GLICLAZIDE (glick-laz-ide) GLIMEPIRIDE (gli-mep-ir-ide)</p>  <p>Other sulfonylureas Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Glibenclamide • Glipizide
<p>What it is used for</p>	<ul style="list-style-type: none"> • Type 2 diabetes
<p>How it works</p>	<ul style="list-style-type: none"> • Increases release of natural insulin from pancreas to help cells use glucose. This helps to control blood glucose levels in people with diabetes 
<p>Side effects</p>	<ul style="list-style-type: none"> • Blood glucose too low (hypoglycaemia or ‘hypo’) <ul style="list-style-type: none"> ▶ More likely to happen if patient is not eating enough food or dose too high or combination with other medicines for diabetes ▶ Warning signs — sweating, hunger, shaking (tremor), confusion, loss of consciousness  <p>Weight gain</p>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding</p>  <p>Liver trouble</p>  <p>Kidney trouble — use lower dose</p>  <p>Medical consult if person has a hypo — medical/diabetes educator consult</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • A lot of medicines affect blood glucose and will affect how well sulfonylureas work — always check with doctor or pharmacist before adding another medicine • Do not take more than 1 aspirin tablet a day unless doctor tells you to • What to do if they have a hypo, and to come to clinic straight away if treatment doesn't work  <p>Take with food or milk (to avoid hypo)</p>  <p>Exercise every day</p>  <p>Eat healthy food</p>  <p>Do not drink alcohol (grog) Drinking alcohol makes you more likely to have a hypo, and less likely to know you are having one</p>
	<p>Warning stickers (page 310): Gliclazide 10a, A, B Glimepiride 10a, F</p>
<p>Check</p>	<ul style="list-style-type: none"> • Are combined checks for chronic conditions up to date  <p>Regular blood glucose (BGL) tests</p>

<p>Active ingredients (generic names)</p>	<p>LEVOTHYROXINE (levo-thi-rox-een)</p>  <p>Other thyroid hormones Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Liothyronine • Eltroxin is not bioequivalent to other brands
<p>What it is used for</p>	<ul style="list-style-type: none"> • Thyroid hormone too low (hypothyroidism) • Thyroid gland not working properly or has been removed, or partly removed
<p>How it works</p>	<ul style="list-style-type: none"> • Replaces thyroid hormones when not enough in body <ul style="list-style-type: none"> ▸ Thyroid hormones help many parts of body grow and work properly 
<p>Side effects</p>	<ul style="list-style-type: none"> • Dose can be reduced if signs of too much thyroid hormone (hyperthyroidism) — overdose • Signs of overdose <ul style="list-style-type: none"> ▸ Weight loss ▸ Other signs: <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Fast pulse (heart rate)</p> </div> <div style="text-align: center;">  <p>Sweating</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> <div style="text-align: center;">  <p>Trouble sleeping</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Dose often needs to be adjusted (depending on symptoms)  <p>Heart trouble</p> <p>Interactions — Do not use together without medical consult</p> <p>LEVOTHYROXINE with</p> <ul style="list-style-type: none"> • Antiepileptics • Ciprofloxacin — can take 6 hours before or after levothyroxine • Digoxin • Iron + calcium, antacids — can take 4 hours before or after thyroxine • Proton pump inhibitors • Warfarin
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Can take up to 6 weeks to work • Will need regular blood tests especially when starting and to get dose right • For infants or young children — mix crushed tablet in spoonful of water or milk (not soy milk) • If not kept in fridge use-by/expiry date will be sooner, it won't work as well <ul style="list-style-type: none"> ▶ 1 strip can be kept out of fridge or in dose aid for up to 2 weeks <div style="display: flex; justify-content: space-around;"> <div data-bbox="448 1119 596 1246">  <p>Take on empty stomach usually before breakfast</p> </div> <div data-bbox="834 1113 976 1252">  <p>Do not stop taking medicine — take medicine as instructed to stop symptoms coming back</p> </div> </div>
<p>Warning stickers (page 310): 3b, 4a,</p>	
<p>Check</p>	 <p>Blood test</p> <p>Thyroid function 6 weeks after changing dose, then once a year when stable</p>

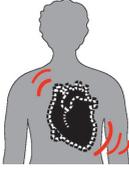
<p>Active ingredients (generic names)</p>	<p>ACETAZOLAMIDE (a-seet-a-zole-a-mide)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Acute glaucoma
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces eye (intraocular) pressure by reducing production of fluid (aqueous humour) in the eye 
<p>Side effects</p>	<ul style="list-style-type: none"> • Tingling (paraesthesia) in hands, face, feet • Problems with sex (eg low sex drive) • Bitter or metallic taste • Metabolic acidosis, changes in body salts (electrolytes) • Skin reactions (eg Stevens Johnson Syndrome) <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;">  <p>Diarrhoea</p> </div> <div style="text-align: center; margin: 10px;">  <p>Sleepy</p> </div> <div style="text-align: center; margin: 10px;">  <p>Depression</p> </div> <div style="text-align: center; margin: 10px;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center; margin: 10px;">  <p>Abdominal pain</p> </div> <div style="text-align: center; margin: 10px;">  <p>Kidney trouble (kidney stones)</p> </div> </div>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Breastfeeding</p>  <p>Old people</p>  <p>Kidney trouble — use lower dose</p>  <p>Liver trouble</p>  <p>Gout</p>
<p>Interactions — Do not use together without medical consult ACETAZOLAMIDE with:</p> <ul style="list-style-type: none"> • High dose aspirin • Cyclosporin • Lithium 	
<p>Tell the patient</p> 	 <p>Take with food or milk — so medicine doesn't make you feel sick</p>
<p>Warning stickers (page 310): 10a, 12, B</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Avoid use if allergy to sulphonamides  <p>Blood test Regular checks for kidney function (UEC), FBC</p>

<p>Active ingredients (generic names)</p>	<p>KETOTIFEN (key-to-tif-fen) OLOPATADINE (oh-loe-pa-ta-deen)</p>  <p>Other antihistamines (eye) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Azelastine • Levocabastine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Allergic conjunctivitis • Fly bite
<p>How it works</p>	<ul style="list-style-type: none"> • Histamines produced by the body cause most allergy symptoms. Antihistamines can <ul style="list-style-type: none"> ▶ Block the action of histamine by binding to histamine receptors. Ketotifen and olopatadine bind to H₁ receptors (selective H₁ antagonists) ▶ Stabilising the mast cells that produce histamines — reducing the amount of histamine released
<p>Side effects</p>	<ul style="list-style-type: none"> • Mild eye irritation, stinging when put in • Dry eye (olopatadine) • Engorgement or inflammation of the eye (olopatadine)  <p>Headache Dry mouth Sleepy Blurred vision</p>

 <p>Warnings</p>	 <p>Children under 3 years</p> <hr/> <p>Interactions — Do not use together without medical consult ANTIHISTAMINES (eye) with</p> <ul style="list-style-type: none"> • Vasoconstrictor eye drops
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not share with other people • May sting when first put in • Only use 1 drop for each dose <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Wash hands</p> </div> <div style="text-align: center;">  <p>Give eye drops — do not touch eye with nozzle</p> </div> <div style="text-align: center;">  <p>Take it back to the clinic after 1 month — will be out of date</p> </div> </div> <p>Warning stickers (page 310): 7b</p>
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>APRACLONIDINE (a-pra-clar-ni-deen)</p>  <p>Other alpha₂ agonists Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Brimonidine (eye)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Glaucoma <ul style="list-style-type: none"> ▸ Acute ▸ Chronic
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces eye (intraocular) pressure by reducing production and increasing outflow of fluid (aqueous humour) in eye 
<p>Side effects</p>	<ul style="list-style-type: none"> • Dry mouth and nose • Taste disturbance <div style="display: flex; justify-content: space-around;"> <div data-bbox="378 1361 535 1525">  <p>Eye irritation — if allergic to preservative or drops in ointment</p> </div> <div data-bbox="636 1361 793 1525">  <p>Headache</p> </div> </div>

 <p>Warnings</p>	 <p>Pregnant</p>  <p>Heart trouble</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not share with other people  <p>Wash hands</p>  <p>Give eye drops — do not touch eye with nozzle Push inner eye (tear duct) after each dose</p>  <p>Take it back to the clinic after 1 month — will be out of date</p>
<p>Check</p>	<p>Warning stickers (page 310): 7b</p>

<p>Active ingredients (generic names)</p>	<p>CHLORAMPHENICOL (clor-am-fen-i-col)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Eye infections with pus and eyelids stuck together in morning <ul style="list-style-type: none"> ▶ Bacterial conjunctivitis ▶ Eye surface ulcer or infection • Prevent eye infection if <ul style="list-style-type: none"> ▶ Eye damaged ▶ Something in eye ▶ Flash burn
<p>How it works</p>	<ul style="list-style-type: none"> • Kills bacteria that causes some common eye infections • Can be used as drops or ointment 
<p>Side effects</p>	<ul style="list-style-type: none"> • Bad taste if drops run into back of mouth • Ointment and drops can sting or burn — need to close eyes for 5 minutes

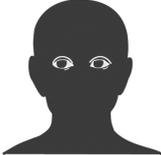
 <p>Warnings</p>	 <p>Medical consult if infection only in 1 eye OR If not better at end of usual treatment time</p>
<p>Tell the patient</p> 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Wash hands</p> </div> <div style="text-align: center;">  <p>Take it back to the clinic after 1 month — will be out of date</p> </div> <div style="text-align: center;">  <p>Return to clinic if not better at end of treatment time</p> </div> </div> <ul style="list-style-type: none"> • Do not use on other people, you might give them your infection • Drops <ul style="list-style-type: none"> ▶ Only use 1 drop for each dose ▶ Press inside corner of eye to stop drops running into mouth so you don't get bad taste ▶ If using both drops and ointment, use drops before ointment <div style="text-align: center;">  <p>Give eye drops — do not touch eye with nozzle</p> </div> <ul style="list-style-type: none"> • Ointment <ul style="list-style-type: none"> ▶ Lasts longer but can make vision blurry for a short time ▶ Use at night time <div style="text-align: center;">  <p>Apply eye ointment — Pull bottom eyelid down and put thin layer of ointment along the inside. Do not touch eye with nozzle</p> </div>
<p>Check</p>	<p>Warning stickers (page 310): 7b</p> <ul style="list-style-type: none"> • Follow-up when treatment finished to make sure infection is gone. If not — medical consult

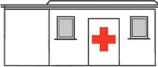
<p>Active ingredients (generic names)</p>	<p>DEXAMETHASONE (dex-a-meth-a-son-e) PREDNISOLONE 1% + PHENYLEPHRINE 0.12% (pred-nis-o-lone + fen-al-ef-rine)</p>  <p>Other corticosteroids (eye) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Fluorometholone • Hydrocortisone (eye) • Prednisolone (eye)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Acute glaucoma • Allergic and inflammatory conditions of the eye
<p>How it works</p>	<ul style="list-style-type: none"> • Corticosteroid reduces body’s inflammatory response, reducing pain and swelling • Vasoconstrictor (phenylephrine) narrows small blood vessels in eye, reduces redness and pain 
<p>Side effects</p>	<ul style="list-style-type: none"> • Eye damage can occur with longer term use <ul style="list-style-type: none"> ▶ Do not use for more than 2 weeks without supervision by ophthalmologist

 <p>Warnings</p>	<ul style="list-style-type: none"> • Person wears contact lenses <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Pregnant — if needed for more than 5 days (phenylephrine)</p> </div> <div style="text-align: center;">  <p>Babies under 6 months (prednisolone + phenylephrine)</p> </div> <div style="text-align: center;">  <p>Blurred vision (prednisolone + phenylephrine)</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Children (dexamethasone)</p> </div> <div style="text-align: center;">  <p>Eye trouble — infection</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not share with other people • Do not stop taking eye drops abruptly, talk to Doctor when you want to stop <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Wash hands</p> </div> <div style="text-align: center;">  <p>Give eye drops — do not touch eye with nozzle</p> </div> <div style="text-align: center;">  <p>Take it back to the clinic after 1 month — will be out of date</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 7b</p>

<p>Active ingredients (generic names)</p>	<p>EYE LUBRICANTS (loo-bri-cants)</p>  <p>Common name: artificial tears</p> <ul style="list-style-type: none"> • Lubricant drops may contain: carmellose, hypromellose, hydroxyethylcellulose, polyvinyl alcohol, polyethylene glycol, propylene glycol, sodium hyaluronate • Ointments may contain: paraffin, wool fat (lanolin)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Conjunctivitis — allergic and viral • Dry eye • Fly bite • Mild eye irritation (eg dust)
<p>How it works</p>	<ul style="list-style-type: none"> • Works like tears to soothe dry eyes 
<p>Side effects</p>	 <p>Eye irritation — if allergic to preservative or drops in ointment</p>

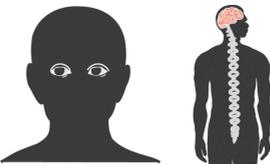
 <p>Warnings</p>	<ul style="list-style-type: none"> • Consider cause of sore eyes — damage, infection, chronic disease, medicines (eg benztropine, ipratropium)  <p>Medical consult if needed for more than a short time (over a week)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not share with other people. If you have an infection you will pass it on • Wash hands before use • Use as often as needed  <p>Give eye drops — do not touch eye with nozzle</p>  <p>Take it back to the clinic after 1 month — will be out of date</p>  <p>Return to clinic if needed for more than a short time</p>
<p>Warning stickers (page 310): 7a or 7b</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Check for cause of irritation — see <i>Warnings</i>

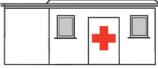
<p>Active ingredients (generic names)</p>	<p>FLUORESCEIN (floor-res-sin)</p>  <p>Other stains (eye) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Lissamine green • Rose bengal <p>Local anaesthetic and stain (eye) combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Lidocaine (lignocaine) + fluorescein
<p>What it is used for</p>	<ul style="list-style-type: none"> • Finding damage on eye surface <ul style="list-style-type: none"> ▶ Dry eye ▶ Eye assessment ▶ Ulcers or infection
<p>How it works</p>	<ul style="list-style-type: none"> • Colours damaged or injured parts of eye surface so they can be seen 
<p>Side effects</p>	<ul style="list-style-type: none"> • Skin around eye may go yellow, but this washes off • Nasal discharge or tears may change colour

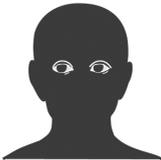
 <p>Warnings</p>	<ul style="list-style-type: none"> • Soft contact lenses may be stained  <p>Only use in clinic — Do not give to person to use at home</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Might sting when drops go in • Has no effect apart from helping to see damage
<p>Check</p>	

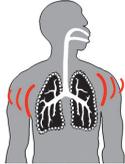
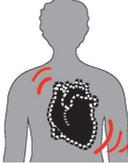
<p>Active ingredients (generic names)</p>	<p>NAPHAZOLINE (na-faz-o-leen)</p>  <p>Other decongestants (eye) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Phenylephrine • Tetrahydrozoline (tetryzoline) <p>Decongestant & antihistamine (eye) combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Naphazoline + antazoline (eg <i>Albalon-A</i>) • Naphazoline + pheniramine (eg <i>Naphcon-A, Visine Allergy with Antihistamine</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Allergic reaction to pollens, smoke, dust, insect bites (with antihistamine) • Sore, red, itchy eyes with no pus
<p>How it works</p>	<ul style="list-style-type: none"> • Narrows small blood vessels in eye, reduces redness and pain 
<p>Side effects</p>	<ul style="list-style-type: none"> • Stinging when drops put in • Redness may come back after drops wear off  <p>Blurred vision</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use eye decongestant for more than 5 days as your red eyes will come back <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Children under 6 years</p> </div> <div style="text-align: center;">  <p>Medical consult if eyes no better after 2 days</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May sting when drops go in • Only use 1 drop for each dose • Do not share with other people <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Wash hands</p>  <p>Take it back to the clinic after 1 month — will be out of date</p> </div> <div style="text-align: center;">  <p>Give eye drops — do not touch eye with nozzle</p>  <p>Return to clinic if needed for more than 5 days</p> </div> </div>
<p>Warning stickers (page 310): 7b</p>	
<p>Check</p>	<ul style="list-style-type: none"> • Is eye infected • Is something (foreign body) in eye causing irritation

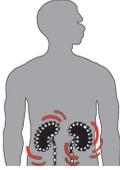
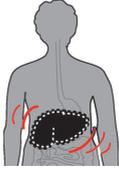
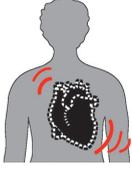
<p>Active ingredients (generic names)</p>	<p>OXYBUPROCAINE (oxy-bu-pro-cane) TETRACAINE (AMETHOCAINE) (tet-ra-cane [a-meth-o-cane])</p>  <p>Other local anaesthetics (eye) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Proxymetacaine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Numbing the eye to <ul style="list-style-type: none"> ▶ Check for injury ▶ Do double eversion of eyelid ▶ Examine flash burns ▶ Remove foreign body ▶ Wash out burning chemical • Removing tick from ear
<p>How it works</p>	<ul style="list-style-type: none"> • Blocks nerves in eye so pain messages can't be sent to brain 
<p>Side effects</p>	<ul style="list-style-type: none"> • Tiny ulcers (sores) on eyes if used too much

 <p>Warnings</p>	 <p>Only use in clinic — do not give to person to use at home</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Stings when first put in. Close eyes for a little while • Do not go outside until effects wear off to prevent damage to eye (10–20 minutes) <ul style="list-style-type: none"> ▸ If not able to stay in clinic — cover with pad  <p>Do not rub eyes after drops put in</p>
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>TIMOLOL (tim-ol-ol)</p>  <p>Other beta-blockers (eyes) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Betaxolol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Acute glaucoma • High blood pressure in the eye
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces production of fluid (aqueous humour) in the eye 
<p>Side effects</p>	<ul style="list-style-type: none"> • Stinging when drops put in  <p>Slow pulse (heart rate)</p>  <p>Blurred vision</p>

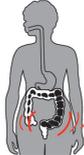
 <p>Warnings</p>	 <p>Pregnant</p>  <p>Old people</p>  <p>Children</p>  <p>Breathing trouble — asthma</p>  <p>Heart trouble</p>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <p>TIMOLOL with:</p> <ul style="list-style-type: none"> • Adrenaline (epinephrine) • Beta₂ agonists • Beta-blockers (oral) • Clonidine • Ergometrine • Isoprenaline • NSAIDs – low dose aspirin OK • Verapamil <ul style="list-style-type: none"> • May sting when drops go in • Store gel drops upside down so bubbles don't form when applied • Close their eyes and apply punctal occlusion (hold down on corners of eyes) after drop administration • Do not share with other people  <p>Wash hands</p>  <p>Give eye drops — do not touch eye with nozzle</p>  <p>Take it back to the clinic after 1 month — will be out of date</p> <p>Warning stickers (page 310): 7b</p>
<p>Check</p>	

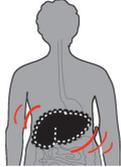
<p>Active ingredients (generic names)</p>	<p>ANTACIDS (ant-acids)</p>  <p>Usually combinations of aluminium hydroxide, calcium carbonate, magnesium hydroxide.</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Eases pain of stomach upset <ul style="list-style-type: none"> ▸ Gastritis, reflux, indigestion ▸ Heartburn in pregnancy ▸ Stomach ulcers
<p>How it works</p>	<ul style="list-style-type: none"> • Neutralises stomach acid to prevent pain if stomach acid comes back up oesophagus 
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually none if taken for short time <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Constipation — if a lot of aluminium or calcium</p> </div> <div style="text-align: center;">  <p>Diarrhoea — if a lot of magnesium</p> </div> </div>

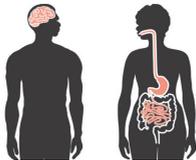
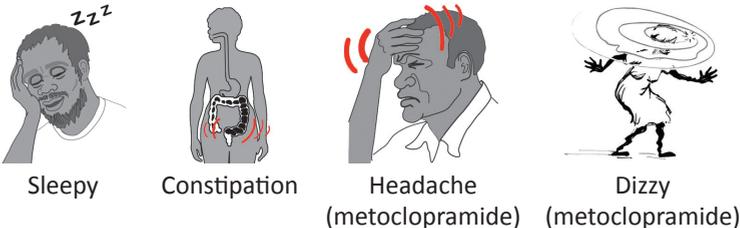
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Kidney trouble (antacids with sodium)</p> </div> <div style="text-align: center;">  <p>Liver trouble (antacids with sodium)</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Heart failure — do not use antacids with sodium</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than one week</p> </div> </div>
<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Antacids should not be taken at same time as other oral medicines. Leave 2 hours between taking an antacid and another medicine 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Only use when you have symptoms • Take between meals and at bedtime, or when needed • Shake bottle before taking mixture • Tablets work best if chewed but can be swallowed whole <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — makes symptoms worse</p> </div> <div style="text-align: center;">  <p>Return to clinic if not getting better OR symptoms come back</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Check for underlying problem (eg heart trouble, stomach ulcer)

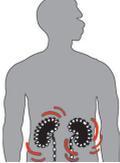
<p>Active ingredients (generic names)</p>	<p>DOCUSATE (doc-u-sate) POLOXAMER (pol-ox-a-mer) DOCUSATE + SENNA (doc-u-sate + sen-na)</p>  <p>Other faeces softeners Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Liquid paraffin
<p>What it is used for</p>	<ul style="list-style-type: none"> • Constipation caused by some medicines <ul style="list-style-type: none"> ▸ Opioids ▸ Palliative care medicines • Postnatal constipation • Preventing straining following rectal surgery and in acute perianal disease
<p>How it works</p>	<ul style="list-style-type: none"> • Softens faeces by gathering moisture from body into bowels 
<p>Side effects</p>	<ul style="list-style-type: none"> • Excessive loss of body salts (electrolytes)  <p>Abdominal pain</p>  <p>Diarrhoea — if dose too high</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Use for short time only • Seek help with diet if constipated for a long time  <p>Dehydration</p>  <p>Medical consult if needed for more than one week</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Takes 1–3 days to work when taken orally, 5–20 minutes to work when given rectally  <p>Children under 3 years — use poloxamer (Coloxyl Drops)</p>  <p>Return to clinic</p>  <p>Drink lots of water — helps stop constipation</p>  <p>Eat healthy food — plenty of fruit and vegetables. Helps stop constipation</p>
<p>Check</p>	<ul style="list-style-type: none"> • Check for cause of constipation

<p>Active ingredients (generic names)</p>	<p>LOPERAMIDE (lo-per-a-mide)</p>  <p>Other opioid antidiarrhoeals Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Diphenoxylate
<p>What it is used for</p>	<ul style="list-style-type: none"> • Stopping diarrhoea in adults <ul style="list-style-type: none"> ▸ Alcohol withdrawal
<p>How it works</p>	<ul style="list-style-type: none"> • Slows down gastrointestinal movements and increases absorption of fluid from the bowel into the body 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Abdominal pain</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Constipation</p> </div> </div>

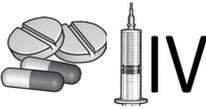
 <p>Warnings</p>	<ul style="list-style-type: none"> • Intestinal obstruction (blocked bowel or gut)  <p>Urgent medical consult if large fluid loss OR person can't tolerate fluid replacement</p>  <p>Medical consult if needed for more than a few days — may be another problem</p>  <p>Children — use ORS</p>  <p>Liver trouble</p>
<p>Tell the patient</p> 	 <p>Return to clinic if needed for more than a few days</p>  <p>Drink lots of water</p>
<p>Check</p>	<ul style="list-style-type: none"> • Does person have signs of dehydration • Check for cause of diarrhoea

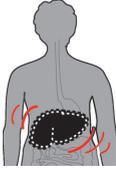
<p>Active ingredients (generic names)</p>	<p>METOCLOPRAMIDE (me-to-clo-pra-mide) PROCHLORPERAZINE (pro-chlor-per-a-zeen)</p>  <p>Other dopamine antagonists Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Domperidone • Droperidol • Haloperidol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Increasing gastrointestinal movement after operations • Nausea and vomiting (adult) <p>Metoclopramide</p> <ul style="list-style-type: none"> • Nausea and vomiting (adult) with: opioid withdrawal, palliative care, pregnancy <p>Prochlorperazine</p> <ul style="list-style-type: none"> • Dizziness and vertigo
<p>How it works</p>	<ul style="list-style-type: none"> • Acts on dopamine hormone receptors in brain and gut to reduce nausea and vomiting and increase gastrointestinal movement 
<p>Side effects</p>	<ul style="list-style-type: none"> • Restlessness • Agitation • Muscle spasm • Oculogyric crisis 

 <p>Warnings</p>	<ul style="list-style-type: none"> • People with Parkinson’s disease <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Children</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Kidney trouble (metoclopramide)</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Dehydration — may need oral rehydration salts</p> </div> <div style="text-align: center;">  <p>Depression</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than a short time (one week)</p> </div> </div>
<p>Tell the patient</p> 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> <div style="text-align: center;">  <p>Drink lots of water</p> </div> <div style="text-align: center;">  <p>Return to clinic if still sick in 1–2 days</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Does patient have signs of dehydration • Check for cause of vomiting

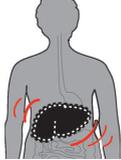
<p>Active ingredients (generic names)</p>	<p>NIZATIDINE (ni-za-ti-deen)</p>  <p>Other H₂ antagonists Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Famotidine • Ranitidine
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain of stomach upset <ul style="list-style-type: none"> ▸ Heartburn, indigestion in pregnancy • Stomach ulcer
<p>How it works</p>	<ul style="list-style-type: none"> • The stomach makes acid to help digest food. Acid can sometimes irritate stomach lining. H₂ antagonists reduce the secretion of acid in the stomach 
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually none if taken for short time

 <p>Warnings</p>	 <p>Medical consult if needed for more than a short time — may be another problem (eg heart trouble)</p>
<p>Tell the patient</p> 	 <p>Do not drink alcohol (grog) — makes symptoms worse</p>  <p>Return to clinic if not getting better OR symptoms come back</p>
<p>Check</p>	<ul style="list-style-type: none"> • Does person still need it after taking for a long time • Investigate reason for using

<p>Active ingredients (generic names)</p>	<p>OMEPRAZOLE (o-mep-ra-zol)</p>  <p>Other proton pump inhibitors (PPIs) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Esomeprazole • Lansoprazole • Pantoprazole • Rabeprazole
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain from stomach upset <ul style="list-style-type: none"> ▸ Gastritis, reflux, indigestion ▸ Stomach ulcers • Preventing stomach irritation caused by taking NSAIDs
<p>How it works</p>	<ul style="list-style-type: none"> • Stomach makes acid to help digest food. Acid can irritate stomach lining. PPIs reduce amount of acid in stomach 
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually none for first 2 months  <p>Headache</p>  <p>Nausea</p>  <p>Diarrhoea</p>

 <p>Warnings</p>	  <p>Liver trouble — with higher doses</p> <p>Medical consult if needed for more than a short time — may be another problem (eg heart trouble)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Swallow tablets whole. Do not crush or chew  <p>Return to clinic if needed for more than 1–2 months</p> <p>Warning stickers (page 310): 13, A</p>
<p>Check</p>	<ul style="list-style-type: none"> • Does person still need it after taking it for long time

<p>Active ingredients (generic names)</p>	<p>ONDANSETRON (on-dan-set-ron)</p>  <p>Other 5HT3 antagonists Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Granisetron • Palonosetron • Tropisetron
<p>What it is used for</p>	<ul style="list-style-type: none"> • Nausea and vomiting • Persistent vomiting with diarrhoea (children)
<p>How it works</p>	<ul style="list-style-type: none"> • Stops nausea and vomiting by blocking central and peripheral 5HT3 receptors (a type of serotonin receptor)
<p>Side effects</p>	 <p>Constipation Headache Dizzy</p>

	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Breastfeeding — OK for 1-2 doses</p> </div> <div style="text-align: center;">  <p>Children under 2 years</p> </div> <div style="text-align: center;">  <p>Liver trouble — use lower dose</p> </div> </div>
<p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>ONDANSETRON with</p> <ul style="list-style-type: none"> • Apomorphine • Rifampicin • Tramadol — reduces analgesic effect of tramadol
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If too nauseous to swallow tablets or medicine mixture — dissolve wafer on the tongue
<p>Check</p>	<ul style="list-style-type: none"> • For cause of nausea

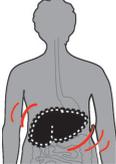
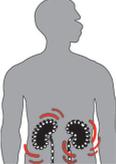
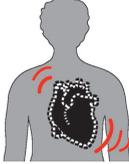
ORAL REHYDRATION SALTS	
Active ingredients (generic names)	 <p>Common name: ORS</p>
What it is used for	<ul style="list-style-type: none"> • Replacing fluid, body salts (electrolytes), glucose lost when person at risk of or dehydrated due to <ul style="list-style-type: none"> ▶ Diarrhoea ▶ Vomiting ▶ Sweating a lot
How it works	<ul style="list-style-type: none"> • Provides replacement fluid, body salts (electrolytes), glucose 
Side effects	<ul style="list-style-type: none"> • Usually none if taken for short time

 <p>Warnings</p>	 <p>Children (watch for signs of dehydration)</p>  <p>Medical consult if needed for more than a few days May be another problem</p>  <p>Urgent Medical consult if large fluid loss OR person can't tolerate fluid replacement</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Important to measure right amount of clean drinking water before mixing <ul style="list-style-type: none"> ▶ Usually 2 tablets or 1 sachet in 200mL of water • Children may take ORS better if frozen and given as an ice block
<p>Check</p>	<ul style="list-style-type: none"> • Dose given according to body weight and severity of diarrhoea  <p>Making ORS Dissolve sachet or tablets with right amount of water before use</p>

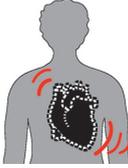
<p>Active ingredients (generic names)</p>	<p>TOPICAL ANORECTAL (a-no-rec-tal)</p>  <p>May contain combinations of adrenaline (epinephrine), aluminium acetate, allantoin, balsam peru, benzocaine, cinchocaine, lidocaine (lignocaine), hydrocortisone, prednisolone, zinc oxide, benzyl benzoate</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Relieving pain and bleeding of haemorrhoids (piles) • Inflammation or itchiness around anus • Tear or split in lining of anus (fissure)
<p>How it works</p>	<ul style="list-style-type: none"> • Contains local anaesthetic and corticosteroids to stop pain, adrenaline (epinephrine) to help stop small blood vessels bleeding, ingredients to soothe skin
<p>Side effects</p>	<ul style="list-style-type: none"> • May cause redness and irritation

 <p>Warnings</p>	<ul style="list-style-type: none"> • Itching around anus could be caused by threadworms  <p>Medical consult if needed for more than a short time (one week)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Preventing constipation will help stop you straining when you go to the toilet. Straining causes haemorrhoids and makes them worse (painful or bleeding) <ul style="list-style-type: none"> ▶ Drink lots of water and eat lots of fibre • Use faeces softener if needed (eg docusate) • Keep area clean  <p>Drink lots of water — helps stop constipation</p>  <p>Eat healthy food — plenty of fruit and vegetables. Helps stop constipation</p>  <p>Return to clinic if you need to use for more than a short time OR symptoms come back</p>
<p>Check</p>	<ul style="list-style-type: none"> • Does person need treatment for worms or constipation

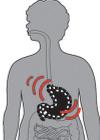
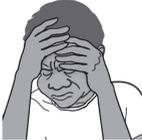
<p>Active ingredients (generic names)</p>	<p>SILDENAFIL (sil-den-a-fil) TADALAFIL (ta-dal-a-fil) VARDENAFIL (var-den-a-fil) AVANAFIL (ava-na-fil)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Erectile dysfunction • Pulmonary arterial hypertension (sildenafil and tadalafil)
<p>How it works</p>	<ul style="list-style-type: none"> • Chemical messengers increase flow of blood to penis during sexual stimulation and cause an erection. This medicine helps stops these messengers breaking down so that they work better to help erection • In pulmonary hypertension it helps open up blood vessels in lungs to reduce pressure 
<p>Side effects</p>	<ul style="list-style-type: none"> • Blocked nose <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Rash</p> </div> <div style="text-align: center;">  <p>Flushing</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> </div>

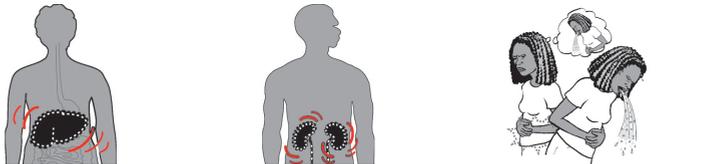
 <p>Warnings</p>	 <p>Old people — start with low dose</p>  <p>Liver trouble</p>  <p>Kidney trouble</p>  <p>Heart trouble</p>  <p>Eye trouble</p>
	<p>Interactions — Do not use together without medical consult</p> <p>SILDENAFIL, TADALAFIL, VARDENAFIL, AVANAFIL with</p> <ul style="list-style-type: none"> • Nitrates (Glyceryl trinitrate, Isosorbide dinitrate) • Some medicines that lower BP (eg prazosin, tamsulosin, terazosin) <ul style="list-style-type: none"> ▶ Can take 4 hours before or after sildenafil, tadalafil ▶ Can take 6 hours before or after vardenafil, avanafil
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take sildenafil about 1 hour before you want it to work. May take longer to work if you take it with food • Take vardenafil 30–60 minutes before you want it to work. May take longer to work if you take it with a fatty meal • Take tadalafil 30 minutes to 12 hours before you want it to work • Take avanafil 15–30 minutes before you want it to work. May take longer to work if you take it with food • If taking sildenafil for pulmonary hypertension — must take it regularly as directed • Maximum of one dose per 24 hours  <p>Do not drive or operate machinery if dizzy or blurred vision</p>  <p>Return to clinic straight away if you can't see OR hear properly</p>
	<p>Warning stickers (page 310): 5, 16</p>
<p>Check</p>	<ul style="list-style-type: none"> • Does patient have any heart or eye problems

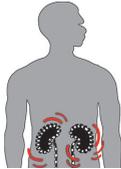
<p>Active ingredients (generic names)</p>	<p>URINARY ALKALINISERS (ur-in-ary alk-al-in-i-sers)</p>  <p>May contain combinations of citric acid, tartaric acid, sodium bicarbonate, sodium citrotrate, sweetener.</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Relieving burning from infections of kidney, bladder, urine • Some types of kidney stones
<p>How it works</p>	<ul style="list-style-type: none"> • Decreases levels of acid in urine and relieves pain, burning and discomfort of urinary tract infections (UTIs) or infections of kidney or bladder • Doesn't kill bacteria that causes infection, but can help discomfort caused by UTIs 
<p>Side effects</p>	 <p>Diarrhoea</p>

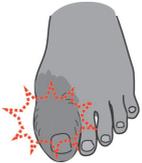
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Kidney trouble — Do not use if fluid or salt overload a problem</p> </div> <div style="text-align: center;">  <p>Heart failure — Do not use if fluid or salt overload a problem</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>High BP — Do not use if fluid or salt overload a problem</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than one week</p> </div> </div>
<p>Interactions — Do not use together without medical consult</p> <p>URINARY ALKALINISERS with</p> <ul style="list-style-type: none"> • Nitrofurantoin • Lithium • Fosfomycin and methenamine hippurate 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May make you wee more often <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Sachet Mix sachet with glass of water before use</p> </div> <div style="text-align: center;">  <p>Return to clinic if needed for more than a short time</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Test for diabetes if patient gets lots of UTIs • Check for signs of fluid or salt overload <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Blood pressure</p> </div> <div style="text-align: center;">  <p>Weight</p> </div> </div>

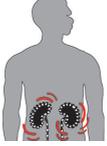
<p>Active ingredients (generic names)</p>	<p>DEXAMETHASONE (deks-a-meth-a-sonē) HYDROCORTISONE (hy-dro-cor-ti-zone) PREDNISOLONE (pred-nis-o-lone)+</p>  <p>Other corticosteroids Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Betamethasone • Cortisone • Methylprednisolone • Prednisone • Triamcinolone
<p>What it is used for</p>	<ul style="list-style-type: none"> • Asthma or chronic lung disease <ul style="list-style-type: none"> ▶ Hydrocortisone: severe child asthma, moderate/severe adult asthma, acute COPD ▶ Prednisolone: mild/moderate child asthma, mild/moderate adult asthma, acute COPD • Meningitis (dexamethasone) • Croup (dexamethasone) • Immunosuppressant (eg after kidney transplant) • Other severe inflammatory or immune disorders
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces inflammation by blocking body's natural response to infection or injury
<p>Side effects</p>	<ul style="list-style-type: none"> • Blood glucose disturbance (hyperglycaemia), sleep disturbance • Long term — many side effects including bone density loss, muscle weakness, mood disturbance, skin atrophy, weight gain, infection

 <p>Warnings</p>	<ul style="list-style-type: none"> • Blood glucose levels can increase in people with diabetes • Do not use soon after chickenpox, shingles or measles infections <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Stomach trouble</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>High BP</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Mental health problems</p> </div> <div style="text-align: center;">  <p>Medical consult if needed for more than one week</p> </div> </div>
<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Corticosteroids interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If taking for more than 3 weeks — do not stop suddenly, follow instructions for slowly reducing dose • If taking for a long time — make sure you tell other doctors and health people that you are taking this medicine • Can increase risk of infections (eg thrush) • If possible take in the morning to avoid sleep disruption • Different steroids are not interchangeable <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Take with food or milk</p> </div> <div style="text-align: center;">  <p>Return to clinic if needed for more than a short time</p> </div> </div> <p>Warning stickers (page 310): 9, B, prednisolone also 6 (some oral products)</p>
<p>Check</p>	<ul style="list-style-type: none"> • If using for more than 3 months — bone density test for possible damage to bones (steroid-induced osteoporosis) <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Blood pressure</p> </div> <div style="text-align: center;">  <p>Blood test — Check kidney function (UEC), LFT BGL before giving medicine, then once a week for the first month of treatment</p> </div> </div>

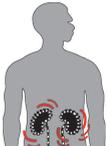
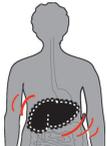
<p>Active ingredients (generic names)</p>	<p>IMMUNOSUPPRESSANTS (imm-u-no-su-press-ants)</p>  <p>Immunosuppressants include</p> <ul style="list-style-type: none"> • Corticosteroids (eg dexamethasone, prednisolone) • Calcineurin inhibitors (eg ciclosporin, tacrolimus) • Cytotoxic immunosuppressants • Immunosuppressant antibodies • Sirolimus derivatives • Mycophenolate
<p>What it is used for</p>	<ul style="list-style-type: none"> • Autoimmune and inflammatory diseases — rheumatoid arthritis, psoriasis, ulcerative colitis, Crohn’s disease • Organ transplants (kidney transplant) so body won’t reject the new organ
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces effectiveness of the body’s immune system • Suppresses over-active immune reactions (where immune system reacts more than needed) • Stops reactions against transplanted organs
<p>Side effects</p>	<ul style="list-style-type: none"> • Easier for patients to get infections • Increased risk of some cancers (eg skin cancer, lymphoma) <p>There are many side effects — see the <i>AMH</i> for complete list</p>  <p>Liver damage Kidney damage Nausea and vomiting</p>

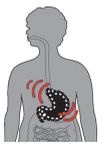
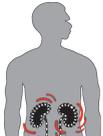
 <p>Warnings</p>	 <p>Pregnant</p>  <p>Kidney trouble</p>
	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Immunosuppressants interact with a lot of different medicines including herbal medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Increased risk of skin cancers — have regular checks and protect from the sun • If you forget to take a dose at the usual time — take it as soon as you remember. Don't skip a dose • Always stick with the same brand and formulation  <p>Keep out of the sun</p>
	<p>Warning stickers (page 310): 8</p>
<p>Check</p>	 <p>Blood pressure</p>  <p>Regular blood tests needed (FBC, LFT, UEC)</p> <ul style="list-style-type: none"> • Screen for infection before starting (including latent TB and HBV) • Grapefruit juice can cause some immunosuppressants to build up in body — ask doctor or pharmacist about this • Does person needs antibacterial prophylaxis before dental work • Has person had flu vaccination and all vaccines up to date

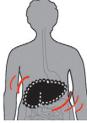
<p>Active ingredients (generic names)</p>	<p>ALLOPURINOL (al-o-pure-i-nole)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Preventing gout attacks. Not a treatment for acute gout attack and acute flare of gout
<p>How it works</p>	<ul style="list-style-type: none"> • Gout is caused by build up of uric acid crystals in joints and connective and subcutaneous tissue • Long-term use of allopurinol prevents gout attacks by reducing the amount of uric acid made by body 
<p>Side effects</p>	<p>Taste disturbance (metallic taste)</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Itchy rash</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> <div style="text-align: center;">  <p>Swollen ankles</p> </div> </div>

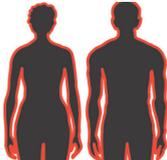
 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not start (or restart) during gout attack, but may be continued if patient already taking regularly <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Kidney trouble — use lower dose</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • If you stop tablets you will need to start again at low dose (starting at high dose may cause gout attack and increase risk of hypersensitivity reactions) • If you have not taken them for a while and you get a gout attack do not take these tablets. Talk to doctor or clinic about different medicine until attack settles down • Stop drug if rash occurs or other signs of allergy <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Take with food or milk</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine Take medicine as instructed to stop symptoms coming back</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if dizzy or faint</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Drink lots of water — helps stop build up of uric acid, can prevent kidney stones</p> </div> <div style="text-align: center;">  <p>Return to clinic if you get a rash, swollen lips or mouth, or fever OR sore throat that doesn't go away. Stop taking the medicine</p> </div> </div>
	<p>Warning stickers (page 310): 12, B</p>
<p>Check</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Blood test</p> <p>Check liver function tests (LFT) and renal function Check uric acid levels 2-5 weeks after starting medicine or changing dose, then every 6 months during maintenance</p> </div> </div>

<p>Active ingredients (generic names)</p>	<p>COLCHICINE (col-chi-seen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain in gout attacks if NSAIDs can't be used • Preventing gout attacks
<p>How it works</p>	<ul style="list-style-type: none"> • When uric acid crystal builds up in joints and connective and subcutaneous tissue, the body sometimes reacts with pain, swelling, redness • Colchicine stops this reaction to uric acid to prevent or treat a gout attack
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Diarrhoea — if dose too high</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> </div>

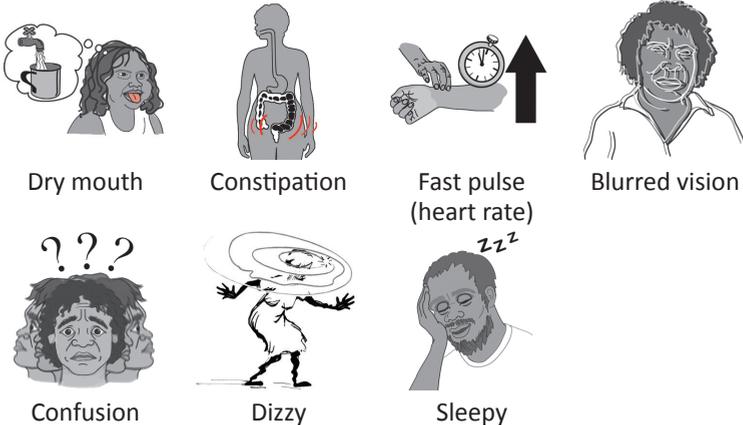
 <p>Warnings</p>	<ul style="list-style-type: none"> • Pre-existing eye infections <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding — Take after breastfeed to minimise infant exposure</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Liver trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Stomach trouble</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Interactions — Do not use together without medical consult • Colchicine interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine • When using for gout attack, do not take more than 3 tablets for one course. Stop for 3 days in between courses. If you have liver or kidney problems you may have to wait longer in between courses • Do not drink grapefruit juice — can increase amount of medicine in your blood and chance of getting side effects • Return to clinic if after completing your course your symptoms haven't improved <div style="text-align: center; margin-top: 10px;">  </div> <p style="text-align: center; margin-top: 10px;">Return to clinic if you get diarrhoea, muscle pain, tingling in fingers or toes, bruising or bleeding, infection — stop taking medicine</p>
<p>Check</p>	<div style="text-align: center; margin-bottom: 10px;">  </div> <p style="text-align: center;">Blood test if using for prevention — check uric acid Check FBC and CK before starting medicine, after 1 month and 6 months, then once a year</p>

<p>Active ingredients (generic names)</p>	<p>IBUPROFEN (i-bu-pro-fen) INDOMETACIN (in-doe-met-a-sin)</p>  <p>Other NSAIDs (Cox 1 and Cox 2 inhibitors) Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Aspirin • Celecoxib • Diclofenac • Etoricoxib • Ketoprofen • Ketorolac • Mefenamic acid • Meloxicam • Naproxen • Piroxicam
<p>What it is used for</p>	<ul style="list-style-type: none"> • Dental pain • Fever (ibuprofen) • Gout (indometacin) • Kidney stone (renal colic) • Mild to moderate pain <ul style="list-style-type: none"> ▸ May be used with other pain medicines (eg morphine, paracetamol) • Period pain (ibuprofen) • Reducing swelling and inflammation in arthritis, sprains and injuries
<p>How it works</p>	<ul style="list-style-type: none"> • Prostaglandins in body cause redness, swelling (inflammation), pain at site of injury. NSAIDs stop body making prostaglandins
<p>Side effects</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;">  <p>Nausea</p> </div> <div style="text-align: center; margin: 10px;">  <p>Stomach trouble (eg bleeding ulcer)</p> </div> <div style="text-align: center; margin: 10px;">  <p>Headache</p> </div> <div style="text-align: center; margin: 10px;">  <p>Dizzy</p> </div> <div style="text-align: center; margin: 10px;">  <p>Kidney trouble</p> </div> <div style="text-align: center; margin: 10px;">  <p>High BP — can make worse</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • People who get asthma when they take aspirin <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>High BP</p> </div> <div style="text-align: center;">  <p>Stomach trouble or ulcer before</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>Bleeding or bruising</p> </div> </div> <p style="text-align: right; color: red;">Medical consult if needed for more than one week</p>
	<p>Interactions — Do not use together without medical consult</p> <p>NSAID with</p> <ul style="list-style-type: none"> • Blood thinning medicines (aspirin, clopidogrel, warfarin, rivaroxaban, apixaban) • ARB • Alendronate • Diuretics • Lithium • ACE inhibitor <div style="text-align: center; margin: 10px 0;">  <p>Triple Whammy!</p> </div> <p style="text-align: right;">Dangerous medicine combination that can cause kidney failure.</p> <p>ACE inhibitor/ARB + diuretic + NSAID</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Use lowest dose for shortest period of time • Work best when taken at the same time as regular paracetamol (for chronic pain) • OK to take with low dose aspirin <ul style="list-style-type: none"> ▶ Separate by 30 minutes ▶ Talk to your Doctor if wanting to use NSAIDs <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  <p>Take with food or milk</p> </div> <div style="text-align: center;">  <p>Drink lots of water</p> </div> <div style="text-align: center;">  </div> </div> <p style="text-align: right;">Return to clinic if needed for more than a short time (may given another medicine to protect stomach) OR you have very dark/ blood-coloured vomit or faeces (guna), swollen ankles, trouble breathing OR you have chest pain, irregular heartbeat, sore leg veins and feel faint (CV adverse effects)</p>
<p>Check</p>	<ul style="list-style-type: none"> • Any symptoms of reflux and heartburn, may need medicine to help <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="text-align: center;">  <p>Blood test</p> </div> <div style="text-align: center;"> <p>If using for a long time — check kidney function (UEC), liver function tests (LFT), FBC before starting medicine, then at least once a year</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

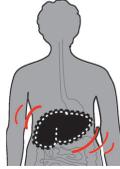
<p>Active ingredients (generic names)</p>	<p>RUBBING MEDICINE</p>  <p>Usually contains eucalyptus and/or methyl salicylate</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Pain of strains or sprains — start applying on day 3 after injury
<p>How it works</p>	<ul style="list-style-type: none"> • Mildly irritates skin to give a feeling of warmth or coolness to sooth pain 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Itchy, burning</p> </div> <div style="text-align: center;">  <p>Rash</p> </div> </div>

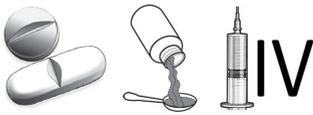
 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not use in first 2 days after injury — apply on day 3 • Use RICE (rest, ice, compression, elevation) for first 2 days— see Sprains and strains (CPM)  <p>Allergy to aspirin or NSAIDs (methyl salicylate)</p>  <p>Medical consult if needed for more than one week</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Keep away from eyes and face • Do not use on broken skin • Works better if massaged in  <p>Wash hands (after rubbing in)</p>
<p>Check</p>	

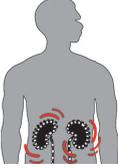
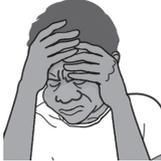
<p>Active ingredients (generic names)</p>	<p>BENZTROPINE (benz-tro-peen)</p>  <p>Other anticholinergic medicines Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Trihexyphenidyl (Benzhexol)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Controlling side effects of antipsychotic medicines, eg haloperidol, depot antipsychotics <ul style="list-style-type: none"> ▸ Mental health emergency ▸ Psychosis ▸ Oculogyric crisis • Parkinson’s disease
<p>How it works</p>	<ul style="list-style-type: none"> • Works in brain to block cholinergic neurotransmitter receptors. This reduces some symptoms of Parkinson’s disease (tremor, rigidity, too much saliva) and side effects of antipsychotics 
<p>Side effects</p>	<ul style="list-style-type: none"> • Urinary retention (can’t pass urine properly)  <p>Dry mouth Constipation Fast pulse (heart rate) Blurred vision</p> <p>Confusion Dizzy Sleepy</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Bladder and bowel trouble • Dementia <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> <div style="text-align: center;">  <p>Eye trouble (glaucoma)</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <p>BENZATROPINE with</p> <ul style="list-style-type: none"> • Other anticholinergic medicines (eg amitriptyline, chlorpheniramine, promethazine, chlorpromazine, olanzapine, oxybutynin, tiotropium)
<p>Tell the patient</p> 	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Do not stop taking medicine Take medicine as instructed to stop symptoms coming back</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy or blurred vision</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> </div>
	<p>Warning stickers (page 310): 1, 9 (if taking for a long time)</p>
<p>Check</p>	<div style="text-align: center;">  <p>Blood pressure</p> </div>

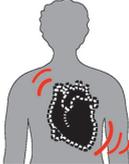
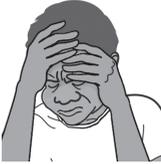
<p>Active ingredients (generic names)</p>	<p>CARBAMAZEPINE (car-ba-maz-e-peen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Epilepsy (fitting) • Nerve (neuropathic) pain • Bipolar disorder — to even out mood swings
<p>How it works</p>	<ul style="list-style-type: none"> • Changes pattern of electrical activity in brain. May be useful where electrical activity is disturbed (eg epilepsy, bipolar disorder, nerve [neuropathic] pain) 
<p>Side effects</p>	<div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>Sleepy — when starting medicine</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Blurred vision</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Rash</p> </div> </div>

	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> </div> <p style="text-align: right;">Monitor infant for drowsiness, poor feeding, allergic skin reaction and jaundice</p>
<p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Carbamazepine interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May stop combined oral or injected contraceptives (pill or implant) from working properly. Use condoms while taking medicine and for 4 weeks after treatment • You will feel tired for first few weeks • Do not drink grapefruit juice — can increase amount of medicine in your bloodstream and chance of getting side effects • Swallow slow-release medicines whole <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;">  <p>Take with food or milk</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> </div> <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy or blurred vision</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine Take medicine as instructed to stop symptoms coming back</p> </div> </div> <div style="margin-top: 10px;">   <p>Return to clinic straight away if you get rash, sore throat, fever, mouth ulcers, bruising OR bleeding OR you are very sleepy</p> </div>
	<p>Warning stickers (page 310): 5, 9, 12, 13, 18, A (slow-release), B</p>
<p>Check</p>	<ul style="list-style-type: none"> • If used long term — consider bone mineral density test <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Blood test — Check FBC before starting medicine If using to treat epilepsy — check carbamazepine levels</p> </div> </div>

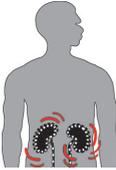
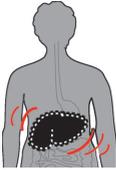
<p>Active ingredients (generic names)</p>	<p>LEVETIRACETAM (lee-ve-tyr-ra-se-tam)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Epilepsy (fitting) • Preventing fitting after head injury
<p>How it works</p>	<ul style="list-style-type: none"> • Exact mechanism unknown. May change the way messages are transmitted by the nerves (neurotransmission) 
<p>Side effects</p>	<ul style="list-style-type: none"> • Loss of appetite  <p>Dizzy</p>  <p>Depression</p>  <p>Aggression</p>  <p>Sleepy</p>  <p>Trouble sleeping</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Kidney trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Pregnant</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Mental health problems</p> </div> </div> <p>Interactions — Do not use together without medical consult LEVETIRACETAM with</p> <ul style="list-style-type: none"> • Methotrexate
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Can dilute mixture in a glass of water <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy or dizzy</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine suddenly</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — medicine increases the effects</p> </div> </div> <p>Warning stickers (page 310): 1, 9</p>
<p>Check</p>	<ul style="list-style-type: none"> • Monitor for changes in mood/behaviour

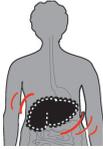
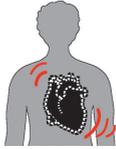
<p>Active ingredients (generic names)</p>	<p>LEVODOPA + BENSERAZIDE (le-vo-doe-pa + ben-ser-a-zide) LEVODOPA + CARBIDOPA (le-vo-doe-pa + car-be-do-pa)</p>  <p>Other dopaminergic combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Levodopa + carbidopa + entacapone (eg <i>Stalevo</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Parkinson's disease — levodopa • Benserazide or carbidopa added to reduce side effects like nausea, vomiting, low BP (hypotension)
<p>How it works</p>	<ul style="list-style-type: none"> • Dopamine is an important chemical messenger in the brain. Parkinson's disease happens when not enough dopamine. Levodopa increases dopamine in the brain 
<p>Side effects</p>	<ul style="list-style-type: none"> • Agitation • Hallucinations • Dyskinesia (strange movements) • Anorexia (loss of appetite) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Sleepy</p> </div> <div style="text-align: center;">  <p>Trouble sleeping</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Dizzy when standing up</p> </div> <div style="text-align: center;">  <p>Depression</p> </div> <div style="text-align: center;">  <p>Confusion</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Eye trouble (glaucoma)</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Mental health problems</p> </div> <div style="text-align: center;">  <p>Pregnant</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <p>BENSERAZIDE with</p> <ul style="list-style-type: none"> • Antiemetics (eg metoclopramide, prochlorperazine), domperidone OK • Antipsychotics (eg haloperidol, risperidone) • Iron — can take 2 hours before or after medicine • Methyl dopa • Nutritional supplement drinks — give medicine first • Phenytoin • Antacids — can take 2 hours before or after medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Swallow whole. Do not chew <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Take at same time every day</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine suddenly</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> </div>
	<p>Warning stickers (page 310): 4 (cross out dairy and calcium), 9, 16, A</p>
<p>Check</p>	<ul style="list-style-type: none"> • For abnormal body movements <div style="text-align: center; margin-top: 20px;">  <p>Blood pressure</p> </div>

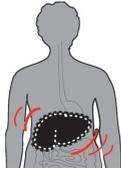
<p>Active ingredients (generic names)</p>	<p>MIDAZOLAM (mi-daz-o-lam)</p>  <p>Solution for injections can be trickled between the cheek and teeth (buccal), given in the nose, or given rectally</p> <p>Other benzodiazepines (neurological)</p> <p>Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Clobazam • Clonazepam • Diazepam • Nitrazepam
<p>What it is used for</p>	<ul style="list-style-type: none"> • Acute treatment of fits <ul style="list-style-type: none"> ▶ Includes seizures associated with poisoning, drug or alcohol withdrawal, high temperature (febrile), long lasting seizures (status epilepticus) • Sedation in mental health emergency • Palliative care
<p>How it works</p>	<ul style="list-style-type: none"> • Works in the brain to stop or prevent fits, and causes sedation 
<p>Side effects</p>	<ul style="list-style-type: none"> • Irritability and hyperactivity — mainly in children and the elderly  <p>Sleepy</p>  <p>Aggression</p>  <p>Confusion</p>  <p>Breathing trouble — may be slow</p>

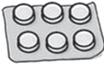
 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant — during labour</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Kidney trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> <div style="text-align: center;">  <p>Breathing trouble</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>Warning Do not use if person drank alcohol in last 6–8 hours</p> </div>
	<p>Interactions — Do not use together without medical consult</p> <p>MIDAZOLAM with</p> <ul style="list-style-type: none"> • Diazepam — unless able to manage airway and breathing • Olanzapine short acting IM with IV Midazolam — unless able to manage airway and breathing • Magnesium sulfate — unless able to manage airway and breathing
<p>Tell the patient</p> 	 <p>Do not drive or operate machinery if sleepy</p>
	<p>Warning stickers (page 310): 1 or 1a</p>
<p>Check</p>	<ul style="list-style-type: none"> • Remember to sign the drug register

<p>Active ingredients (generic names)</p>	<p>PHENYTOIN (fen-i-toyn)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Epilepsy (fitting) • Preventing fitting
<p>How it works</p>	<ul style="list-style-type: none"> • Works in the brain to stop or prevent fits 
<p>Side effects</p>	<ul style="list-style-type: none"> • Signs of overdose — agitation, blurred vision, clumsy walking, jerking of eyes  <p>Nausea</p>  <p>Sore or swollen gums</p>  <p>Sleepy</p>  <p>Confusion</p>  <p>Trouble sleeping</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Diabetes — risk of high blood glucose (hyperglycaemia) <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Liver trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Heart trouble (phenytoin IV)</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Phenytoin interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May stop combined oral or injected contraceptives (pill or implant) from working properly. Use condoms or other contraception while taking medicine and for 4 weeks after treatment • Have regular checks with dentist <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine. Take medicine as instructed to stop symptoms coming back</p> </div> <div style="text-align: center;">  <p>Brush teeth — If gums swell, keep mouth and gums clean. Brush teeth very gently</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy or blurred vision</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if you get fever, sore throat, rash, mouth ulcers, bruising or bleeding</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 5, 9, 12, 13</p> <ul style="list-style-type: none"> • Capsules, tablets and liquid are not all equal — check you have the right phenytoin <div style="text-align: center;">  <p>Blood test Check phenytoin levels, BGL</p> </div>

<p>Active ingredients (generic names)</p>	<p>VALPROATE (val-pro-ate)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Epilepsy (fitting) • Bipolar (mood) disorder • Preventing migraine when other medicines have not worked
<p>How it works</p>	<ul style="list-style-type: none"> • Works in the brain to stop or prevent fits and to help even out moods 
<p>Side effects</p>	<ul style="list-style-type: none"> • Drowsiness at beginning of treatment  <p>Nausea and vomiting</p>  <p>Weight gain</p>  <p>Bleeding or bruising</p>  <p>Tremor</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Pancreatitis <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Valproate interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Swallow tablets whole. Do not chew them • Do not take more than 1 aspirin a day — low dose (100mg) • If you are pregnant or planning on becoming pregnant — discuss this with the doctor <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div style="text-align: center;">  <p>Do not stop taking medicine Take medicine as instructed to stop symptoms coming back</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drink alcohol (grog) (medicine increases the effects)</p> </div> <div style="text-align: center;">  <p>Return to clinic straight away if you have fever, abdominal pain, vomiting, yellowing of skin or eyes, bruising or bleeding</p> </div> </div> <p>Warning stickers (page 310): 9, 10a, 12, 13, A, B</p>
<p>Check</p>	<ul style="list-style-type: none"> • Women of child bearing age are using effective contraception due to risk of birth defects (teratogenic risk) <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Weight</p> </div> <div style="text-align: center;">  <p>Blood test Check liver function tests (LFT), FBC</p> </div> </div>

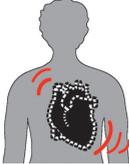
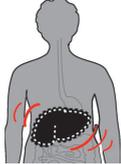
<p>Active ingredients (generic names)</p>	<p>LEVONORGESTREL + ETHINYLESTRADIOL (lee-vo-nor-jess-trel + eth-in-ill-ess-tra-dye-ol)</p>  <p>Common name: the Pill, COC</p> <p>Other progesterone & oestrogen combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Cyproterone + ethinylestradiol (eg <i>Brenda, Diane, Estelle</i>) • Desogestrel + ethinylestradiol (eg <i>Marvelon</i>) • Dienogest + ethinylestradiol (eg <i>Valette</i>) • Drospirenone + ethinylestradiol (eg <i>Yasmin, Yaz</i>) • Gestodene + ethinylestradiol (eg <i>Minulet</i>) • Nomegestrol + estradiol (eg <i>Zoely</i>) • Norethisterone + ethinylestradiol (eg <i>Brevinor, Norimin</i>) • Norethisterone + mestranol (eg <i>Norinyl</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Contraception (stopping pregnancy) • Painful or heavy periods • Discomfort just before period (PMS) • Acne
<p>How it works</p>	<ul style="list-style-type: none"> • Stops release of egg from ovary (ovulation), decreases chance of egg attaching to the uterus and helps thicken mucus to form a barrier to sperm 
<p>Side effects</p>	<ul style="list-style-type: none"> • Increases risk of blood clots — need to check risk factors for clots before giving • Bleeding between periods (spotting) • Mood change <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Sore breasts</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Women who have had blood clot, stroke, cancer <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Greater risk of blood clot from smoking if person older or has diabetes</p> </div> </div> <p>Interactions — Do not use together without medical consult Combined oral contraceptives interact with a lot of different medicines that can stop them working as a contraceptive — always check with doctor or pharmacist before adding another medicine</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Which tablet to start with and when • Use condoms for 7 days <ul style="list-style-type: none"> ▶ When first starting this medicine (unless changing over from another COC) ▶ If you have vomiting or severe diarrhoea for more than 24 hours • Need to take the Pill every day <ul style="list-style-type: none"> ▶ Best to take at same time, and makes it easier to remember ▶ See <i>AMH</i> for what to do about missed pills <div style="text-align: right; margin-top: 10px;">  </div> <p>Return to clinic if you notice possible signs of thrombosis (eg severe and sudden pain in chest, severe headache, sudden blurred vision or loss of sight, unexplained tenderness or pain and swelling in one leg)</p>
<p>Check</p>	<ul style="list-style-type: none"> • Adult Health Check <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Weight</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

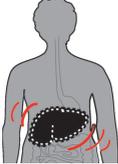
<p>Active ingredients (generic names)</p>	<p>LEVONORGESTREL (lee-vo-nor-jess-trel) <i>Note:</i> This monograph only applies to use of levonorgestrel for emergency contraception ULIPRISTAL (ul-li-pris-tal)</p>  <p>Common names: emergency contraceptive pill, ECP, morning after pill</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Emergency contraception (stopping pregnancy) after unprotected sex <ul style="list-style-type: none"> ▶ Ulipristal (UPA-ECP) works for up to 120 hours (5 days) ▶ Levonorgestrel (LNG-ECP) works best in first 72 hours (3 days)
<p>How it works</p>	<ul style="list-style-type: none"> • Stops release of egg from ovary (ovulation), decreases chance of egg attaching to the uterus, and helps thicken mucus to form a barrier to sperm 
<p>Side effects</p>	<ul style="list-style-type: none"> • Vaginal bleeding or spotting <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Sore breasts</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Nausea</p> </div> <div style="text-align: center;">  <p>Vomiting</p> </div> </div> <p>If woman vomits after taking tablets</p> <ul style="list-style-type: none"> • Ulipristal — vomits within 3 hours • Levonorgestrel — vomits within 2 hours <p>Give the emergency contraceptive medicine again If an antiemetic is needed, wait about 30 minutes before giving the emergency contraceptive medicine again</p>

 <p>Warnings</p>	 <p>Do not breastfeed for 7 days after taking ulipristal</p> <p>Interactions — Do not use together without medical consult</p> <p>ULIPRISTAL with</p> <ul style="list-style-type: none"> • Levonorgestrel ECP • Liver enzyme-inducing medicines <p>LEVONORGESTREL ECP with</p> <ul style="list-style-type: none"> • Ulipristal • Liver enzyme-inducing medicines — use higher dose of emergency contraceptive pills or copper IUD
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • The sooner it is taken after unprotected sex, the better it works. <ul style="list-style-type: none"> ▶ Ulipristal works for up to 120 hours (5 days) ▶ Levonorgestrel best taken in first 72 hours (3 days) • Return to clinic for pregnancy test if next period more than 1 week late or unusually light • Wait 5 days before starting a hormonal contraceptive (ulipristal) • Next period likely to be on time but may be slightly early or late  <p>Return to clinic if you vomit after taking tablets — you will need another dose</p>
<p>Check</p>	<ul style="list-style-type: none"> • Is woman already using contraception <ul style="list-style-type: none"> ▶ Can quick start any contraceptive after using levonorgestrel. It will take 7 days before contraception is effective. Use condoms or abstain from sex during this time ▶ Wait 5 days after taking ulipristal before starting hormonal contraceptive. Use other form of contraception during this time (eg condoms) • STI check

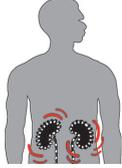
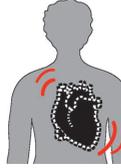
<p>Active ingredients (generic names)</p>	<p>ERGOMETRINE (er-go-met-reen)</p>  <p>Other oxytocic medicines Not included in this monograph — see individual monograph or <i>AMH</i> for more information:</p> <ul style="list-style-type: none"> • Oxytocin • Carbetocin
<p>What it is used for</p>	<ul style="list-style-type: none"> • To stop bleeding (haemorrhage) during and after childbirth <ul style="list-style-type: none"> ▶ Primary postpartum haemorrhage (PPH) ▶ Manual removal of placenta
<p>How it works</p>	<ul style="list-style-type: none"> • Causes uterus to contract and blood vessels to narrow, reducing blood flow to the uterus
<p>Side effects</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Can increase BP</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Mother carrying more than one baby • Severe fibroids • NOT for inducing labour <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>High BP (if pregnant)</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div>
<p>Tell the patient</p> 	
<p>Check</p>	

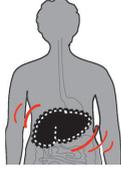
<p>Active ingredients (generic names)</p>	<p>ETONOGESTREL (et-oh-no-jes-trel)</p>  <p>Common name: <i>Implanon</i></p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Long-term contraception (stopping pregnancy)
<p>How it works</p>	<ul style="list-style-type: none"> • Stops sperm reaching egg by thickening cervical mucus • Stops release of egg from ovary (ovulation) • Decreases chance of egg attaching to the uterus 
<p>Side effects</p>	<ul style="list-style-type: none"> • Bruising, pain when inserted or removed • No periods, irregular periods, heavy periods <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Sore breasts</p> </div> <div style="text-align: center;">  <p>Depression</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Breast or liver cancer • Any unexplained vaginal bleeding must be investigated before starting this medicine • Must be inserted by someone who is trained <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Etonogestrel interacts with a lot of different medicines that can stop it working as a contraceptive — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Ensure that you can feel implant — if you cannot, use additional contraception and contact doctor • Can be removed at any time by someone trained to do it. Pregnancy is possible as soon as removed • Stops working after 3 years. Work out date next implant is due with woman and record in file notes <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;"> <p>Return to clinic if menstrual bleeding is heavy OR doesn't stop after 5 days</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Adult Health Check <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Urine pregnancy test before giving</p> </div> <div style="text-align: center;">  <p>Weight</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

<p>Active ingredients (generic names)</p>	<p>MAGNESIUM SULFATE (mag-nee-see-um sul-fate)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Fits in the second half of pregnancy • Preventing fits if very high BP in pregnancy. See <ul style="list-style-type: none"> ▸ Preeclampsia ▸ Stopping labour (tocolysis) • Arrhythmia (irregular heartbeat) • Severe acute asthma
<p>How it works</p>	<ul style="list-style-type: none"> • Believed to protect nerves from injury caused by lack of oxygen, dilation of blood vessels may be involved
<p>Side effects</p>	 <p>Nausea and vomiting</p>  <p>Flushing</p> <ul style="list-style-type: none"> • If too much magnesium <ul style="list-style-type: none"> ▸ Loss of tendon reflexes <i>AND</i>:  <p>Thirsty</p>  <p>Headache</p>  <p>Low BP</p>  <p>Dizzy</p>  <p>Breathing trouble — may be slow</p>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Kidney trouble — use lower dose</p> </div> <div style="text-align: center;">  <p>Heart trouble</p> </div> </div> <ul style="list-style-type: none"> • Must have calcium gluconate injection ready in case person gets too much magnesium <p>Interactions — Do not use together without medical consult</p> <p>MAGNESIUM SULFATE with</p> <ul style="list-style-type: none"> • Nifedipine — may increase effects of magnesium but is often used with it • Neuromuscular blockers — used under doctor's supervision in general anaesthesia and may increase effects of magnesium • Aminoglycosides (eg gentamicin) — may increase risk of loss of tendon reflexes
<p>Tell the patient</p> 	
<p>Check</p>	<ul style="list-style-type: none"> • During infusion — monitor <ul style="list-style-type: none"> ▶ BP ▶ Pulse ▶ Respiratory rate ▶ O₂ sats ▶ Urine output ▶ Knee or other tendon reflex

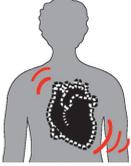
<p>Active ingredients (generic names)</p>	<p>MEDROXYPROGESTERONE (me-drox-ee-pro-jes-ter-own)</p>  <p>Common name: <i>Depo</i></p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Contraception (stopping pregnancy)
<p>How it works</p>	<ul style="list-style-type: none"> • Stops sperm reaching egg by thickening cervical mucus • Stops release of egg from ovary (ovulation) • Decreases chance of egg attaching to the uterus 
<p>Side effects</p>	<ul style="list-style-type: none"> • No periods, irregular periods • May be hard to get pregnant for 12 months after stopping this medicine • Decreased bone mineral density (thinner, weaker bones)  <p>Sore breasts</p>  <p>Weight gain</p>  <p>Depression</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Any unexplained vaginal bleeding must be investigated before starting this medicine • Long-term use weakens bones (loss of bone mineral density) <ul style="list-style-type: none"> ▶ Avoid use if under 18 years or over 45 years ▶ Do not use if over 50 years • See <i>AMH</i> for full list of warnings <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Next injection due in 12 weeks. Work out with woman date of next injection and record in file notes (can be given up to 2 weeks early or 2 weeks late without need for additional contraceptive protection) • May be hard to become pregnant for up to 12 months after injection • When first starting — use condoms for 7 days after injection • Can't be withdrawn once it has been given <p>Warning stickers (page 310): 12</p>
<p>Check</p>	<ul style="list-style-type: none"> • Adult Health Check <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Urine pregnancy test before giving</p> </div> <div style="text-align: center;">  <p>Weight</p> </div> <div style="text-align: center;">  <p>Blood pressure</p> </div> </div>

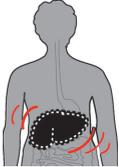
<p>Active ingredients (generic names)</p>	<p>MISOPROSTOL (my-so-pros-tol)</p>  <p>Other prostaglandins Not included in the monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Dinoprostone • Gemeprost
<p>What it is used for</p>	<ul style="list-style-type: none"> • Bleeding in early pregnancy (eg miscarriage) • Heavy bleeding after birth — primary postpartum haemorrhage
<p>How it works</p>	<ul style="list-style-type: none"> • Softens and dilates the cervix and causes contractions
<p>Side effects</p>	<ul style="list-style-type: none"> • Back pain    <p>Nausea and vomiting Headache Diarrhoea</p>    <p>High BP OR Low BP Breathing trouble — makes airways narrow</p>

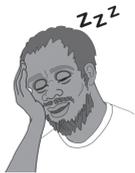
 <p>Warnings</p>	<ul style="list-style-type: none"> • Untreated pelvic infection • Previous caesarean section or uterine surgery  <p>Asthma (aspirin)</p>  <p>High BP</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Oral tablet can be used in rectum or vagina
<p>Check</p>	

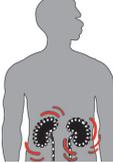
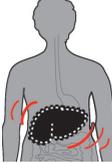
<p>Active ingredients (generic names)</p>	<p>OXYTOCIN (ox-e-toe-sin)</p>  <p>Other oxytocic medicines not included in the monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Ergometrine • Carbetocin
<p>What it is used for</p>	<ul style="list-style-type: none"> • To contract the uterus and stop it bleeding <ul style="list-style-type: none"> ▶ Primary postpartum haemorrhage (PPH) ▶ Secondary postpartum haemorrhage ▶ Uterine inversion • To help deliver the placenta <ul style="list-style-type: none"> ▶ Final stage of normal labour — Labour and birth, Birth of twins ▶ Retained placenta • To start or strengthen contractions during labour — hospital only
<p>How it works</p>	<ul style="list-style-type: none"> • Causes muscles of the uterus to tighten (contract)
<p>Side effects</p>	 <p>Nausea and vomiting — rare</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Fluid retention • Women has had multiple pregnancies or births • Woman has had caesarean section  <p>Heart trouble</p>
<p>Tell the patient</p> 	
<p>Check</p>	<p>Fluid balance if used in high doses with large volumes of fluid to prevent water intoxication as may lead to maternal/ neonatal hyponatraemia</p>

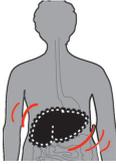
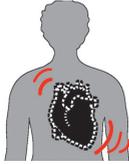
<p>Active ingredients (generic names)</p>	<p>LEVONORGESTREL (lee-vo-nor-jess-trel) NORETHISTERONE (nor-eth-is-ter-own)</p>  <p>Common name: mini pill, POP</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Contraception (stopping pregnancy) • Better choice if woman <ul style="list-style-type: none"> ▸ Breastfeeding ▸ Can't take combined oral contraceptive pill
<p>How it works</p>	<ul style="list-style-type: none"> • Stops sperm reaching egg by thickening cervical mucus • Makes uterus unsuitable to keep a fertilised egg • Stops release of egg from ovary (ovulation) in some women 
<p>Side effects</p>	<ul style="list-style-type: none"> • Irregular periods or prolonged periods • Bleeding between periods (spotting)  <p>Depression</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Women with breast and liver cancer • Any unexplained vaginal bleeding must be investigated before starting this medicine  <p>Liver trouble</p> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Progesterone interacts with a lot of different medicines that can stop it working as a contraceptive — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Can start POP anywhere in packet • Use condoms for 2 days <ul style="list-style-type: none"> ▶ When you first start this medicine ▶ If you are more than 3 hours late taking the pill ▶ If you have have persistent vomiting or severe diarrhoea • See <i>AMH</i> for what to do about missed pills • Take another pill if there is vomiting within 2 hours of taking one  <p>Take pill at same time every day (within 3 hours)</p>
<p>Check</p>	<ul style="list-style-type: none"> • Adult Health Check  <p>Weight</p>  <p>Blood pressure</p>

<p>Active ingredients (generic names)</p>	<p>DIAZEPAM (dye-az-e-pam) TEMAZEPAM (te-maz-e-pam)</p>  <p>Other benzodiazepines (psychotropic) Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Alprazolam • Clonazepam • Lorazepam • Nitrazepam • Oxazepam
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anxiety disorders • Acute behavioural disturbances • Depression • Drug withdrawal <ul style="list-style-type: none"> ▶ Alcohol withdrawal ▶ Cannabis withdrawal ▶ Volatile substance withdrawal • Insomnia — to help patient sleep (temazepam) • Sedation in a mental health emergency
<p>How it works</p>	<ul style="list-style-type: none"> • Acts on specific place (receptor) in brain and makes person feel calm, sleepy, relaxed, less worried 
<p>Side effects</p>	<ul style="list-style-type: none"> • Memory loss • Slurred speech • Unsteady on feet or dizzy — risk of falls (especially old people) • Irritability and hyperactivity (mainly children and old people)  <p>Sleepy</p>  <p>Confusion</p>  <p>Breathing trouble — may be slow</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> If person has been taking benzodiazepines for a long time, stopping suddenly can cause serious withdrawal symptoms <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="461 232 564 402">  <p>Pregnant</p> </div> <div data-bbox="709 232 829 402">  <p>Breastfeeding</p> </div> <div data-bbox="950 232 1105 402">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="452 438 571 607">  <p>Kidney trouble</p> </div> <div data-bbox="709 438 829 607">  <p>Liver trouble</p> </div> <div data-bbox="967 438 1087 607">  <p>Breathing trouble</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> Benzodiazepines interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> This medicine is only for short-term use and needs to be used as part of a plan (talk about plan with patient) If taken regularly for more than 2–4 weeks it will not work as well. Need to be stopped slowly as you may become addicted. Talk to a doctor about stopping this medicine <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="430 1008 597 1153">  <p>Do not drive or operate machinery if sleepy</p> </div> <div data-bbox="687 1008 855 1153">  <p>Do not drink alcohol (grog)</p> </div> </div> <p>Warning stickers (page 310): 1 or 1a, 9</p>
<p>Check</p>	<ul style="list-style-type: none"> Look for cause of symptoms Remember to sign the drug register

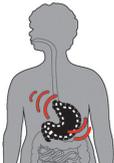
<p>Active ingredients (generic names)</p>	<p>DROPERIDOL (dro-per-i-dol) HALOPERIDOL (hal-o-per-i-dol)</p>  <p>Haloperidol — long-acting depot injection available if people can't take tablets every day</p> <p>Other typical antipsychotics Not included in this monograph — see <i>AMH</i> for more information:</p> <ul style="list-style-type: none"> • Chlorpromazine • Flupenthixol • Pericyazine • Zuclophenthixol
<p>What it is used for</p>	<ul style="list-style-type: none"> • Agitation due to alcohol withdrawal (haloperidol with benztropine) • Psychotic symptoms in mental health emergency (haloperidol with benztropine) • Schizophrenia, perinatal psychosis, conduct disorder, agitation due to dementia (short-term use only)
<p>How it works</p>	<ul style="list-style-type: none"> • When people behave in strange or violent ways, or think strange thoughts, a brain chemical (dopamine) can be out of balance. Sometimes this is caused by using alcohol, cannabis, or sniffing volatile substances • Antipsychotics can help bring back the balance by blocking dopamine. This helps the patient deal with these thoughts and behaviours and get healthy 
<p>Side effects</p>	<ul style="list-style-type: none"> • Problems with sex (eg decreased sex drive) • Strange uncontrollable movements of mouth, eyes, head or body • Neuroleptic malignancy syndrome — life threatening reaction presenting with mental status change, rigidity (stiffness), fever, and increase heart rate, BP and breathing 

 <p>Warnings</p>	<ul style="list-style-type: none"> • Do not put person on stomach after giving haloperidol — risk of throat (laryngeal) spasm • Parkinson’s disease • Diabetes <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="455 311 571 475">  <p>Pregnant</p> </div> <div data-bbox="722 311 812 475">  <p>Children</p> </div> <div data-bbox="950 311 1108 475">  <p>Old people</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="455 516 571 680">  <p>Liver trouble</p> </div> <div data-bbox="705 516 834 680">  <p>Heart trouble</p> </div> <div data-bbox="945 566 1112 633">  <p>Epilepsy (fits)</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Antipsychotics interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take tablets every day, or come to clinic for regular injections, to prevent symptoms coming back • Do not use cannabis (gunja) <div style="display: flex; justify-content: space-around; text-align: center; margin-top: 10px;"> <div data-bbox="455 1015 580 1179">  <p>Return to clinic if strange body movements</p> </div> <div data-bbox="692 1026 855 1161">  <p>Do not drive or operate machinery if sleepy or blurred vision</p> </div> <div data-bbox="950 1026 1112 1172">  <p>Do not drink alcohol (grog)</p> </div> </div> <p>Warning stickers (page 310): 1, haloperidol also 16</p>
<p>Check</p>	<ul style="list-style-type: none"> • Long-acting (depot) antipsychotic injections need to be stored and given correctly. <ul style="list-style-type: none"> ▶ Check you know what is needed for the medicine you are giving ▶ Check when the last depot was given to confirm correct recall date • Do combined checks for chronic diseases and put on recall list

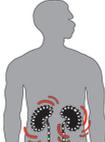
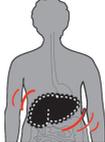
<p>Active ingredients (generic names)</p>	<p>MIRTAZAPINE (mir-taz-a-peen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Major depression • Helping people with depression to sleep
<p>How it works</p>	<ul style="list-style-type: none"> • Blocks specific receptors in the brain to improve the effects of serotonin and noradrenaline <ul style="list-style-type: none"> ▸ Serotonin helps control mood, emotions, eating and sleep ▸ Noradrenaline helps control energy, motivation, alertness and sleep • People who are depressed and sad may not have enough of these • Mirtazapine stops serotonin and noradrenaline going inside nerve cells so there is more left in the brain to help patient with building spirit and being strong again
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Weight gain</p> </div> <div style="text-align: center;">  <p>Sleepy</p> </div> <div style="text-align: center;">  <p>Swollen ankles</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Bipolar disorder <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Children and teenagers</p> </div> <div style="text-align: center;">  <p>Epilepsy (fits)</p> </div> </div>
<p>Interactions — Do not use together without medical consult</p> <p>MIRTAZAPINE with</p> <ul style="list-style-type: none"> • Carbamazepine • Fluvoxamine • Phenytoin • MAOI antidepressants • Phenelzine • Tranylcypromine 	
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • May take about 4 weeks for full effect, but you should start to feel a bit better after 1–2 weeks • Do not stop medicine suddenly — may get withdrawal symptoms. See <i>AMH</i> for details <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not stop taking medicine</p> </div> <div style="text-align: center;">  <p>Do not drink alcohol (grog) medicine increases the effects</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Return to clinic if you feel worse</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> </div>
<p>Warning stickers (page 310): 1, 9, 13, non-disintegrating tablet also A</p>	
<p>Check</p>	<ul style="list-style-type: none"> • The patient after first few weeks of treatment, especially if young • Mental health assessment

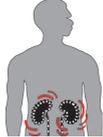
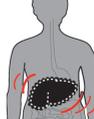
<p>Active ingredients (generic names)</p>	<p>NICOTINE – for nicotine replacement therapy (NRT) (nic-o-teen)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">Gum</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">Inhaler</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">Lozenge</div> <div style="margin: 5px;">  </div> <div style="margin: 5px;">  </div> </div>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Stopping smoking <ul style="list-style-type: none"> ▸ Person should also have counselling
<p>How it works</p>	<ul style="list-style-type: none"> • Nicotine (in gum, skin patch, etc) is released into blood stream and goes to nicotine receptors in brain. Replaces nicotine usually supplied by smoking cigarettes and helps reduce withdrawal symptoms and craving • Nicotine is an addictive drug but small amounts are less dangerous to body than inhaling cigarette smoke <div style="text-align: right; margin-top: 20px;">  </div>
<p>Side effects</p>	<ul style="list-style-type: none"> • Usually mild and don't last long • Vivid dreams <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;"> <div style="text-align: center;">  <p>Dizzy</p> </div> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Heart trouble</p> </div> <div style="text-align: center;">  <p>Stomach trouble or ulcer</p> </div> <div style="text-align: center;">  <p>Asthma — don't use nicotine inhaler</p> </div> </div> <ul style="list-style-type: none"> • Sore throat — use skin patches not oral forms of NRT • Skin trouble — don't use skin patches • Not for long-term use <p>Interactions — Do not use together without medical consult</p> <p>NICOTINE with</p> <ul style="list-style-type: none"> • Cigarette smoking
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Do not smoke — you will get too much nicotine, you will feel sick and your heart will beat too fast • Do not use gum if you have dentures. Use lozenge or skin patch • If pregnant — gum, lozenges, inhalator best • Make sure you use medicine properly <ul style="list-style-type: none"> ▶ Gum — chew until bitter taste and rest gum between teeth and cheek. When taste gone, chew again in the same way until gum makes no more taste ▶ Skin patch — put on clean dry skin on upper body or outer arm, remove at night ▶ Lozenge — do not swallow or chew, let it dissolve in your mouth (takes about 30 minutes). Do not eat or drink during this time ▶ Sublingual tablet — place 1–2 tablets under tongue and let them dissolve slowly ▶ Inhaler — takes about 20 minutes of puffing to work properly <div style="text-align: center;">  <p>Return to clinic if you feel unwell — may need dose reduced</p> </div> <p>Warning stickers (page 310): 21 (patches)</p>
<p>Check</p>	

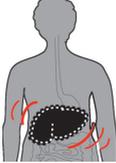
<p>Active ingredients (generic names)</p>	<p>OLANZAPINE (o-lan-za-peen) PALIPERIDONE (pal-ee-per-i-done) RISPERIDONE (ris-per-i-done)</p>  <p>Other atypical antipsychotics Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Amisulpride • Clozapine • Sertindole • Aripiprazole • Quetiapine • Ziprasidone • Brexpiprazole
<p>What it is used for</p>	<ul style="list-style-type: none"> • Agitation due to withdrawal <ul style="list-style-type: none"> ▸ Amphetamines, cannabis, volatile substance misuse (olanzapine) • Psychotic symptoms in mental health emergency and long term prevention (olanzapine or risperidone) • Schizophrenia, bipolar disorder, perinatal psychosis, conduct disorder, agitation due to dementia (short-term use only) • Sedation in mental health emergency (olanzapine)
<p>How it works</p>	<ul style="list-style-type: none"> • When people behave in strange or violent ways, or think strange thoughts, a brain chemical (dopamine) can be out of balance. Sometimes this is caused by using alcohol, cannabis, or sniffing volatile substances • Antipsychotics can help bring back the balance by blocking dopamine. This helps the person deal with these thoughts and behaviours and get healthy 
<p>Side effects</p>	<ul style="list-style-type: none"> • Strange uncontrollable movements of mouth, head or body (happens less than with typical antipsychotics) • Problems with sex (eg decreased sex drive) • Neuroleptic malignancy syndrome — life threatening reaction presenting with mental status change, rigidity, fever, and increase heart rate, BP and breathing  <p>Dizzy when standing up Sleepy Trouble sleeping Anxiety (worry) Headache Weight gain</p>

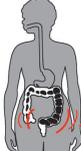
 <p>Warnings</p>	<ul style="list-style-type: none"> • Parkinson’s disease • Type 2 diabetes (olanzapine)  <p>Old people — use lower dose and short term only</p>  <p>Epilepsy (fits) (olanzapine)</p>  <p>Kidney trouble — use lower dose</p>  <p>Liver trouble</p> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Antipsychotics interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Take tablets every day, or come to clinic for regular injections, to prevent symptoms coming back • Do not use cannabis (gunja)  <p>Do not drink alcohol (grog)</p>  <p>Do not drive or operate machinery if sleepy or blurred vision</p>  <p>Return to clinic if strange body movements</p>
	<p>Warning stickers (page 310): Olanzapine 1, 8, 16, wafers also 13 Paliperidone 1, 16, A Risperidone 1, 16, A Risperidone wafers 1,13, 16</p>
<p>Check</p>	 <p>Weight</p>  <p>Blood test</p> <p>Check liver function tests (LFT), FBC</p> <ul style="list-style-type: none"> • Long-acting (depot) antipsychotic injections need to be stored and given correctly <ul style="list-style-type: none"> ▶ Check you know what is needed for the medicine you are giving ▶ Check when the last depot was given to confirm correct recall date • Do combined checks for chronic diseases, and put on recall list

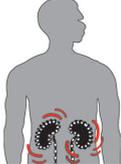
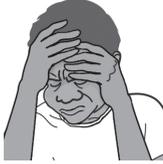
<p>Active ingredients (generic names)</p>	<p>DESVENLAFAXINE (des-ven-la-fax-een) VENLAFAXINE (ven-la-fax-een)</p>  <p>Common name: SNRIs Other SNRIs Not included in this monograph — see <i>AMH</i> for information: • Duloxetine</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Depression • Other stress related conditions (eg anxiety, panic disorder)
<p>How it works</p>	<ul style="list-style-type: none"> • Serotonin and noradrenaline are chemicals in the brain • Serotonin helps control mood, emotions, eating, sleep • Noradrenaline helps control energy, motivation, alertness, sleep • People who are depressed and sad might not have enough of these • SNRIs stop serotonin and noradrenaline going inside nerve cells so there are more left in the brain to help patient with building spirit and being strong again 
<p>Side effects</p>	<ul style="list-style-type: none"> • Problems with sex (eg low sex drive)  <p>Nausea and vomiting</p>  <p>Headache</p>  <p>Rash</p>  <p>Dizzy</p>  <p>Sweating</p>  <p>Tremor</p>  <p>High BP</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Poisonous (toxic) in overdose — avoid use if high risk of overdose • Bipolar disorder • High risk of bleeding (eg old people, previous upper GI bleeding) • Risk of increased suicidal thoughts in young people <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="461 365 555 502">  <p>Pregnant</p> </div> <div data-bbox="731 365 808 502">  <p>Children</p> </div> <div data-bbox="976 365 1079 502">  <p>Kidney trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="461 538 555 657">  <p>Liver trouble</p> </div> <div data-bbox="705 538 838 657">  <p>High BP</p> </div> <div data-bbox="956 566 1096 620">  <p>Epilepsy (fits)</p> </div> </div> <p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • Venlafaxine interacts with a lot of different medicines — always check with doctor or pharmacist before adding another medicine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Swallow whole. Do not crush or chew sustained release (XR) capsules • May take about 4 weeks for full effect, but you should start to feel a bit better after 1–2 weeks • Do not stop medicine suddenly — you may get withdrawal symptoms. See AMH for details <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="455 1039 593 1148">  <p>Take with food or milk — so medicine doesn't make you feel sick</p> </div> <div data-bbox="683 1030 819 1157">  <p>Do not stop taking medicine</p> </div> <div data-bbox="941 1030 1057 1166">  <p>Return to clinic if you feel strange after starting medicine OR if your mental health symptoms worsen</p> </div> </div> <div style="display: flex; justify-content: space-around; text-align: center;"> <div data-bbox="558 1284 700 1394">  <p>Do not drive or operate machinery if sleepy</p> </div> <div data-bbox="945 1284 1087 1394">  <p>Do not drink alcohol (grog)</p> </div> </div> <p>Warning stickers (page 310): 5, 9, 12, A, B</p>
<p>Check</p>	<ul style="list-style-type: none"> • Mental health assessment <div style="text-align: center;">  <p>BP especially venlafaxine</p> </div>

<p>Active ingredients (generic names)</p>	<p>CITALOPRAM (si-tal-o-pram) FLUOXETINE (flu-ox-e-teen) ESCITALOPRAM (es-kit-alo-pram) FLUVOXAMINE (flu-vox-a-mine) PAROXETINE (par-ox-e-teen) SERTRALINE (ser-tra-leen)</p>  <p>Common name: SSRIs Other SSRIs</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anxiety disorders (eg obsessive compulsive disorder) • Bulimia nervosa • Depression • Perinatal anxiety and depression • Post-traumatic stress disorder • Premenstrual dysphoric disorder (fluoxetine, sertraline)
<p>How it works</p>	<ul style="list-style-type: none"> • Serotonin is a chemical in the brain. It helps control mood, emotions, eating and sleep. People who are depressed and sad may not have enough serotonin • SSRIs stop serotonin going inside nerve cells so there is more left in the brain to help patient with building spirit and being strong again 
<p>Side effects</p>	<ul style="list-style-type: none"> • Agitation • Problems with sex (eg decreased sex drive)  <p>Sleepy</p>  <p>Trouble sleeping</p>  <p>Diarrhoea</p>  <p>Nausea</p>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Bipolar disorder • People at high risk of bleeding <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Children and teenagers</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Epilepsy (fits)</p> </div> <div style="text-align: center;">  <p>Liver trouble</p> </div> </div>
<p>Tell the patient</p> 	<p>Interactions — Do not use together without medical consult</p> <ul style="list-style-type: none"> • SSRIs interact with a lot of different medicines — always check with doctor or pharmacist before adding another medicine <ul style="list-style-type: none"> • May take about 4 weeks for full effect, but you should start to feel a bit better after 1–2 weeks • Do not stop medicine suddenly — you may get withdrawal symptoms (see <i>AMH</i> for details) • Make sure you tell other doctors or health people you are taking this medicine <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drink alcohol (grog)</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not stop taking medicine</p> </div> <div style="text-align: center;">  <p>Return to clinic if you feel strange after starting medicine OR if your mental health symptoms worsen</p> </div> </div>
	<p>Warning stickers (page 310): 5, 9, 12</p>
<p>Check</p>	<ul style="list-style-type: none"> • Mental health assessment after 2 weeks of treatment

<p>Active ingredients (generic names)</p>	<p>VARENICLINE (ver-en-e-kleen)</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Stopping smoking <ul style="list-style-type: none"> ▶ Person should also have counselling
<p>How it works</p>	<ul style="list-style-type: none"> • Stops nicotine binding to nicotine receptors in brain so smoking is no longer enjoyable, reduces withdrawal symptoms 
<p>Side effects</p>	<p>Side effects may be caused by giving up smoking not medicine</p> <ul style="list-style-type: none"> • Indigestion <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Nausea and vomiting</p> </div> <div style="text-align: center;">  <p>Constipation</p> </div> <div style="text-align: center;">  <p>Trouble sleeping</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Dizzy</p> </div> </div>

 <p>Warnings</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>Breastfeeding</p> </div> <div style="text-align: center;">  <p>Kidney trouble</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Mental health problems</p> </div> <div style="text-align: center;">  <p>Medical consult if depressed or suicidal thoughts</p> </div> </div> <p>Interactions — Do not use together without medical consult VARENICLINE with</p> <ul style="list-style-type: none"> • Nicotine replacement therapy (NRT – eg gum, skin patches) — may increase risk of nausea and other side effects • Medicines that increase the risk of a fit (seizure). Includes antipsychotics, antidepressants (see <i>AMH</i> or ask doctor or pharmacist)
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Start taking medicine 7 days before you plan to stop smoking • Do not stop taking medicine suddenly. Need to stop gradually for it to work properly and so you won't feel sick • Do not crush or chew tablets • Do not use nicotine replacement therapy (NRT) <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>Do not drink alcohol (grog) — makes side effects worse</p> </div> <div style="text-align: center;">  <p>Do not drive or operate machinery if sleepy or dizzy</p> </div> <div style="text-align: center;">  <p>Return to clinic if nausea that doesn't go away or gets worse OR you feel agitated or depressed</p> </div> </div>
<p>Check</p>	<p>Warning stickers (page 310): 12, 13, A, B</p>

<p>Active ingredients (generic names)</p>	<p>BECLOMETASONE (be-clo-met-a-son-e) BUDESONIDE (bu-des-o-nide) CICLESONIDE (cic-les-o-nide) FLUTICASONE FUROATE (floo-tic-a-zone fuo-ro-ate) FLUTICASONE PROPIONATE (floo-tic-a-zone pro-pi-o-nate)</p>  <p>Common name: preventers</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Managing asthma — children, adults • Managing chronic lung disease — COPD (fluticasone propionate + salmeterol)
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces swelling of airways in lungs to help make breathing easier 
<p>Side effects</p>	<ul style="list-style-type: none"> • Hoarse voice • Thrush (fungal infection) of mouth or tongue — painful, often white coating • If dose high — can affect natural hormones, especially in children

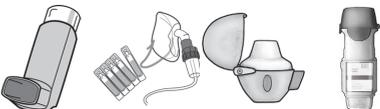
 <p>Warnings</p>	<ul style="list-style-type: none"> • Not suitable for relieving acute attack of asthma but should be continued if already using • Can be used with relievers, cromones or montelukast <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Children under 6 years (ciclesonide)</p> </div> <div style="text-align: center;">  <p>Children under 12 years (fluticasone furoate)</p> </div> <div style="text-align: center;">  <p>Pregnant (ciclesonide)</p> </div> </div>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Use every day, even if you feel better • Rinse mouth with water and spit out after each use • If using inhalation device <ul style="list-style-type: none"> ▶ Keep clean, especially nozzle ▶ Make sure you know how to use it properly • If using both preventer and reliever — use reliever first • Do not use more often than prescribed, especially in children <ul style="list-style-type: none"> ▶ Talk with doctor if you think you need more <div style="text-align: center;">  <p>Puffer works best with a spacer</p> </div>
<p>Check</p>	<p>Warning stickers (page 310): 14</p> <ul style="list-style-type: none"> • Is asthma or COPD action plan up to date • Can person use device properly and keep it clean <ul style="list-style-type: none"> ▶ Ask them to demonstrate • Is spacer being used with puffer — especially important for children and the elderly

<p>Active ingredients (generic names)</p>	<p>BUDESONIDE + FORMOTEROL (EFORMOTEROL) (bu-des-o-nide + for-mo-te-rol) FLUTICASONE FUROATE + VILANTEROL (floo-tic-a-zone fur-o-ate + vil-an-te-rol) FLUTICASONE PROPRIONATE + FORMOTEROL (EFORMOTEROL) (floo-tic-a-zone pro-pi-o-nate + for-mo-te-rol) FLUTICASONE PROPRIONATE + SALMETEROL (floo-tic-a-zone pro-pi-o-nate + sal-me-te-rol)</p>  <p>Common name: preventers</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Managing asthma <ul style="list-style-type: none"> ▸ Adults ▸ Children (budesonide + formoterol [eformoterol], fluticasone propionate + salmeterol) • Managing chronic lung disease — COPD (fluticasone propionate + salmeterol) • Can be used with inhaled relievers, montelukast, cromones
<p>How it works</p>	<ul style="list-style-type: none"> • Reduces swelling of airways in lungs to help make breathing easier 
<p>Side effects</p>	<ul style="list-style-type: none"> • Hoarse voice (salmeterol + fluticasone propionate, formoterol [eformoterol] + budesonide) • Thrush (fungal infection) of mouth or tongue — painful, often white coating • If dose high — can affect natural hormones, especially in children

 <p>Warnings</p>	 <p>Children under 12 years (fluticasone furoate)</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Use every day, even if you feel better • Rinse mouth with water and spit out after each use • If using inhalation device — <ul style="list-style-type: none"> ▸ Keep clean, especially nozzle ▸ Make sure you know how to use it properly • If using both preventer and reliever — use reliever first • Do not use more often than prescribed, especially in children. Talk with doctor if you think you need more  <p>Puffer works best with a spacer</p>
<p>Check</p>	<p>Warning stickers (page 310): 14</p> <ul style="list-style-type: none"> • Is asthma or COPD action plan up to date • Can person use device properly and keep it clean <ul style="list-style-type: none"> ▸ Ask them to demonstrate • Is spacer being used with puffer — especially important for children and the elderly

<p>Active ingredients (generic names)</p>	<p>FORMOTEROL (EFORMOTEROL) (for-mo-te-rol) SALMETEROL (sal-mee-ter-all)</p>  <p>Common name: LABA Other beta₂ agonists (long-acting) Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Indacaterol <p>Beta₂ agonist combinations</p> <ul style="list-style-type: none"> • See Corticosteroids (inhaled) and beta2 agonists (long acting)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Maintenance treatment of asthma if also using inhaled or oral corticosteroids
<p>How it works</p>	<ul style="list-style-type: none"> • Opens up small air passages in lungs to help make breathing easier and prevent asthma attacks 
<p>Side effects</p>	 <p>Headache</p>  <p>Fast pulse (heart rate)</p>  <p>Tremor</p>

	<ul style="list-style-type: none"> • Do not use salmeterol as reliever in acute asthma attack. Use salbutamol • Formoterol (eformoterol) may be used in acute asthma attack, as well as for prevention of asthma
<p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>SALMETEROL with</p> <ul style="list-style-type: none"> • Beta-blockers
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • For asthma — must be used with preventer • For COPD — can be used alone • Do not use salmeterol to treat acute asthma attack • Use every day, even if you feel better • After using inhaler with corticosteroid (preventer), rinse mouth and throat with water and spit out • Keep inhalation device clean, especially nozzle <ul style="list-style-type: none"> ▶ Make sure you know how to use properly  <p>Return to clinic if wheeze gets worse</p>
<p>Check</p>	<ul style="list-style-type: none"> • Is asthma action plan up to date • Can person use device properly and keep it clean <ul style="list-style-type: none"> ▶ Ask them to demonstrate

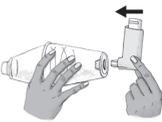
<p>Active ingredients (generic names)</p>	<p>Short-acting IPRATROPIUM (ip-ra-trop-ium) Long-acting TIOTROPIUM (tio-trop-ium) Tiotropium</p>  <p>Common name: relievers Other long-acting anticholinergics Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Acclidinium • Glycopyrronium • Umeclidinium <p>Long-acting anticholinergic combinations</p> <ul style="list-style-type: none"> • Acclidinium + formoterol (eformoterol) (eg <i>Brimica</i>) • Glycopyrronium + indacaterol (eg <i>Ultibro</i>) • Tiotropium + olodaterol (eg <i>Spiolto</i>) • Umeclidinium + vilanterol (eg <i>Anoro</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Severe asthma attack — children, adults (ipratropium) • Chronic lung disease (COPD) <ul style="list-style-type: none"> ▶ Exacerbation (acute episode) (ipratropium) ▶ Ongoing management (tiotropium)
<p>How it works</p>	<ul style="list-style-type: none"> • Opens airways so sputum easier to cough up 
<p>Side effects</p>	<ul style="list-style-type: none"> • Sore throat • Trouble passing urine (urinary retention), or worse symptoms if bladder obstruction  <p>Dry mouth</p>  <p>Dizzy (ipratropium)</p>  <p>Blurred vision (if using nebuliser)</p>

 <p>Warnings</p>	 <p>Eye trouble (glaucoma)</p>  <p>Medical consult if Ipratropium needed for more than a week</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • For COPD, use tiotropium every day • If using inhalation device — <ul style="list-style-type: none"> ▶ Keep clean, especially nozzle ▶ Make sure you know how to use it properly • If using nebuliser (ipratropium) — cover eyes during use  <p>Puffer works best with a spacer</p>  <p>Return to clinic if you need ipratropium more than 3–4 times a week — may need a preventer</p>
<p>Check</p>	<p>Warning stickers (page 310): Tiotropium 22</p>
<p>Check</p>	<ul style="list-style-type: none"> • Is asthma or COPD action plan up to date • Can person use device properly and keep it clean <ul style="list-style-type: none"> ▶ Ask them to demonstrate • Is spacer being used with puffer — especially important for children and the elderly

<p>Active ingredients (generic names)</p>	<p>MONTELUKAST (mon-te-loo-kast)</p>  <p>Common name: preventers</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Asthma <ul style="list-style-type: none"> ▸ Helps prevent symptoms — children, adults ▸ Prevention of exercise-induced asthma • Allergic rhinitis (blocked nose caused by allergies)
<p>How it works</p>	<ul style="list-style-type: none"> • Makes airways less sensitive • Decreases swelling of the lining of the airways 
<p>Side effects</p>	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Headache</p> </div> <div style="text-align: center;">  <p>Abdominal pain</p> </div> <div style="text-align: center;">  <p>Diarrhoea</p> </div> </div>

 <p>Warnings</p>	<ul style="list-style-type: none"> • Not for relieving acute asthma attack, but should be continued if already using
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Chew tablets well before swallowing • If using to prevent exercise-induced asthma — take 2 hours before exercise <ul style="list-style-type: none"> ▸ No more than 1 dose in 24 hour • Do not use montelukast to treat asthma attack  <p>Take at night</p>
<p>Check</p>	<ul style="list-style-type: none"> • Is asthma action plan up to date

<p>Active ingredients (generic names)</p>	<p>SALBUTAMOL (sal-bu-ta-mol) TERBUTALINE (ter-bu-ta-leen)</p>  <p>Common name: relievers</p>
<p>What it is used for</p>	<ul style="list-style-type: none"> • Asthma <ul style="list-style-type: none"> ▸ Adults ▸ Children ▸ Prevention of exercise induced asthma • Chest infection with a wheeze in child (salbutamol) • Chronic lung disease in adult (salbutamol) • High potassium levels caused by missed dialysis (salbutamol)
<p>How it works</p>	<ul style="list-style-type: none"> • Quickly opens up small air passages in lungs to help make breathing easier • Pushes potassium into cells (salbutamol) 
<p>Side effects</p>	 <p>Headache</p>  <p>Fast pulse (heart rate)</p>  <p>Tremor Hands may shake uncontrollably</p>

 <p>Warnings</p>	 <p>Medical consult if person using more than 3–4 times a week — may need a preventer</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Use when needed to help make breathing easier • Keep inhalation device clean, especially nozzle <ul style="list-style-type: none"> ▸ Make sure you know how to use properly • Make sure you know how to tell when inhaler is empty  <p>Puffer works best with a spacer</p>  <p>Return to clinic if you need salbutamol more than 3–4 times a week — may need a preventer</p>
<p>Check</p>	<p>Warning stickers (page 310): Salbutamol — capsules/nebules 22, if foil wrapping 7b</p> <ul style="list-style-type: none"> • Is asthma or COPD action plan up to date • Can person use device properly and keep it clean <ul style="list-style-type: none"> ▸ Ask them to demonstrate • Is spacer being used with puffer — especially important for children and the elderly

<p>Active ingredients (generic names)</p>	<p>IMMUNISATIONS</p>  <ul style="list-style-type: none"> • Refer to <i>The Australian Immunisation Handbook, AMH</i> or regional immunisation schedule for complete list of vaccines and more information • Some combination vaccines are available
<p>What it is used for</p>	<ul style="list-style-type: none"> • Protection against serious infectious diseases
<p>How it works</p>	<ul style="list-style-type: none"> • Immunisations help the body's natural defence mechanism (immune response) to make antibodies that protect against certain germs • If most people in a community are immunised, they can help to stop serious infection and sickness in people with low immunity, like babies and old people
<p>Side effects</p>	<ul style="list-style-type: none"> • May be different side effects for each immunisation — see <i>Australian Immunisation Handbook</i> or <i>AMH</i> • If acute febrile illness — postpone all vaccinations until patient is well • Pain, swelling or redness at injection site • Upset or cranky (babies) <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Fever</p> </div> <div style="text-align: center;">  <p>Anaphylaxis — severe allergic reaction (rare)</p> </div> </div>

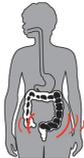
 <p>Warnings</p>	<ul style="list-style-type: none"> • Allergy to eggs, yeast, previous immunisations • Patient prone to infection — weakened immune system <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Pregnant</p> </div> <div style="text-align: center;">  <p>High fever</p> </div> </div>
	<p>Interactions — Do not use together without medical consult</p> <p>Treatment with immunoglobulins — may interfere with the immune response to some live virus vaccines — medical consult</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • OK to give dose of paracetamol to babies if upset or crying <div style="text-align: center;">  <p>Return to clinic if serious side effects</p> </div>
<p>Check</p>	<p>Warning stickers (page 310): 6</p> <ul style="list-style-type: none"> • Must have current qualification to give immunisations • Always have anaphylaxis kit with adrenaline (epinephrine) ready when giving vaccines • Check how to give IM injection so it won't hurt as much • Is immunisation documented in file notes and on register (eg <i>Australian Immunisation Register [AIR]</i>), if applicable <ul style="list-style-type: none"> ▶ Is hand held record updated (eg child health record) • See cold chain procedures for safely storing and transporting vaccines

<p>Active ingredients (generic names)</p>	<p>FOLIC ACID (foe-lik as-id) Also known as: folate, vitamin B9 FOLIC ACID + IRON (foe-lik as-id + i-on)</p>  <p>Other medicines for anaemia Not included in this monograph — see individual monograph or <i>AMH</i> for more information:</p> <ul style="list-style-type: none"> • Iron • Vitamin B12
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anaemia (weak blood) in pregnancy in combination with iron • Preventing birth defects — neural tube defects and spina bifida. Given in <ul style="list-style-type: none"> ▸ Antenatal (pregnancy) care ▸ Diabetes in pregnancy ▸ Epilepsy in pregnancy • Preventing folate deficiency during dialysis • To help prevent side effects in patients taking some medicines (eg methotrexate) • Treating folate deficiency in pregnancy
<p>How it works</p>	<ul style="list-style-type: none"> • Folic acid is needed by the body to make protein and build red blood cells, especially important for healthy development of foetus <ul style="list-style-type: none"> ▸ Higher doses are needed for pregnant women who have diabetes, epilepsy, BMI more than 30, have had a previous pregnancy with a neural tube defect • Replaces folate when levels are too low • Replaces folate lost when people take some medicines (eg methotrexate), so side effects less likely
<p>Side effects</p>	

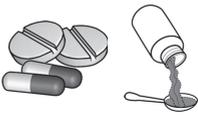
 <p>Warnings</p>	<ul style="list-style-type: none">• Folic acid should not be given on the same day as methotrexate
<p>Tell the patient</p> 	<ul style="list-style-type: none">• For women who are pregnant or planning to become pregnant — if possible take folic acid for at least 1 month before getting pregnant, and then for first 3 months of pregnancy
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>IODINE (i-o-dine)</p>  <p>Iodine combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Iodine + folic acid (eg <i>I-Folic</i>) • Iodine + multivitamins (eg <i>Elevit, Fabfol plus, I-Folic</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Makes sure both mother and baby have enough iodine during pregnancy and breastfeeding. Important for development of baby’s brain and nervous system <ul style="list-style-type: none"> ▶ Antenatal care ▶ Diabetes in pregnancy ▶ Postnatal care • Part of treatment for overactive thyroid (Graves’ disease)
<p>How it works</p>	<ul style="list-style-type: none"> • Replaces iodine needed to make thyroid hormones • Pregnant and breastfeeding women need it for good development of the baby’s brain and nervous system 
<p>Side effects</p>	<ul style="list-style-type: none"> • Allergic reaction (rare)

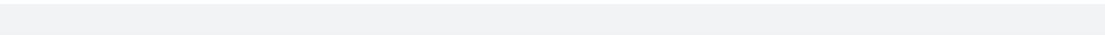
 <p>Warnings</p>	 <p>Thyroid problems</p>
<p>Tell the patient</p> 	<ul style="list-style-type: none">• Take once a day while pregnant and breastfeeding — unless you have a thyroid condition
<p>Check</p>	

<p>Active ingredients (generic names)</p>	<p>IRON (i-on)</p>  <p>Other medicines for anaemia Not included in this monograph — see individual monograph or <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Vitamin B12 • Folic acid <p>Anaemia medicine combinations Not included in this monograph — see <i>AMH</i> for information:</p> <ul style="list-style-type: none"> • Iron + folic acid (eg <i>FGF</i>, <i>Fefol</i>, <i>Ferro-F</i>) • Iron + Vitamin C (eg <i>Ferrograd C</i>)
<p>What it is used for</p>	<ul style="list-style-type: none"> • Anaemia (weak blood) in children and youth • Strengthens the blood in people who have low iron stores or iron deficiency anaemia (weak blood) <ul style="list-style-type: none"> ▶ Pregnant women ▶ Women who have heavy periods ▶ People who have lost a lot of blood from injury ▶ People with kidney failure ▶ People who don't get enough iron from food they eat
<p>How it works</p>	<ul style="list-style-type: none"> • Iron is needed to build red blood cells which carry oxygen to body's cells • Iron and folic acid normally come from red meat, eggs and leafy vegetables, but sometimes this isn't enough for the body's needs 
<p>Side effects</p>	<ul style="list-style-type: none"> • Black faeces  <p>Nausea</p>  <p>Abdominal pain</p>  <p>Constipation</p>

 <p>Warnings</p>	 <p>Anaphylaxis, (severe allergic reaction) — rare, with injection</p> <p>Interactions — Do not use together without medical consult</p> <p>IRON with</p> <ul style="list-style-type: none"> • Doxycycline (tetracyclines), antacids, calcium, zinc — take at least 2 hours before or after iron medicine • Quinolones (eg ciprofloxacin) — take at least 2 hours before taking iron medicine • Levodopa • Thyroxine
<p>Tell the patient</p> 	<ul style="list-style-type: none"> • Too much iron medicine is dangerous. Measure amounts carefully. Keep in a safe place out of reach of children • Do not take with tea — stops it working properly • Mixture can stain teeth. Mix with water and drink through straw • Causes dark stools • Some iron medicines need to be swallowed whole (eg slow-release or coated tablets) • Eat foods with lots of iron — red meat, leafy vegetables <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Lock up medicines</p> </div> <div style="text-align: center;">  <p>Take on empty stomach — unless upsets stomach</p> </div> <div style="text-align: center;">  <p>Eat healthy food</p> </div> </div>
<p>Check</p>	<ul style="list-style-type: none"> • Always have anaphylaxis kit with adrenaline (epinephrine) ready when giving iron injections • Check for and treat cause of anaemia (low iron) (eg heavy periods, NSAIDs, hookworm) <div style="text-align: center;">  </div> <p>Blood test — do fasting iron studies, if needed</p>

<p>Active ingredients (generic names)</p>	<p>ZINC</p> 
<p>What it is used for</p>	<ul style="list-style-type: none"> • Persistent diarrhoea in children
<p>How it works</p>	<ul style="list-style-type: none"> • Zinc increases body's immunity to infection and reduces inflammation
<p>Side effects</p>	 <p>Nausea</p>

 <p>Warnings</p>	<p>Interactions — Do not use together without medical consult</p> <p>ZINC with</p> <ul style="list-style-type: none"> • Calcium salts, iron medicine — may interfere with absorption of zinc. Take 2–3 hours before or after zinc • Quinolones (eg ciprofloxacin) — take at least 2 hours before taking zinc • Tetracyclines (eg doxycycline) — take at least 2 hours before taking zinc
<p>Tell the patient</p> 	 <p>Take with food or milk — if medicine upsets stomach</p>
<p>Check</p>	<p>Warning stickers (page 310): B</p> <ul style="list-style-type: none"> • Zinc is available in different strengths, you need to know the amount of elemental zinc in the medicine and check the dose in mg

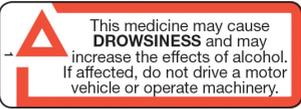
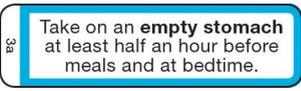
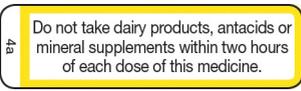
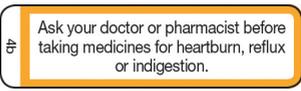
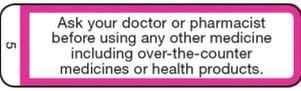
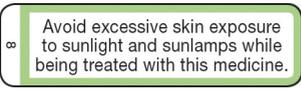
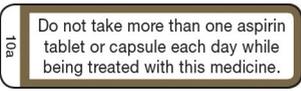
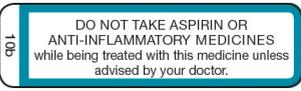
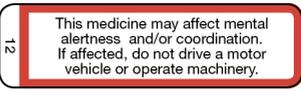


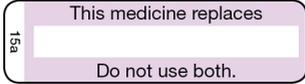
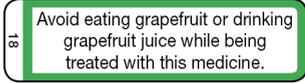
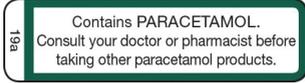
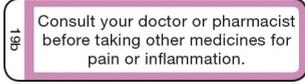
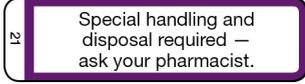
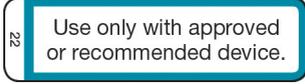
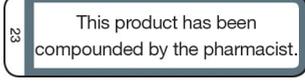
Reference section

Warning stickers.....	310
Abbreviations.....	312
Glossary.....	314
Anatomy dictionary.....	319
Calculating medicine doses and drip rates.....	323
Index.....	325

Warning stickers

- These warning stickers (or Cautionary Advisory Labels — CALs) help with legal requirements to correctly label medicines, especially those causing sedation. These stickers should be used if available
- See the *Australian Pharmaceutical Formulary and Handbook* for the complete list of approved CAL recommendations

1		1a	
2		3a	
3b		4a	
4b		5	
6		7a	
7b		8	
9		10a	
10b		11	
12		13	

14		15a	
15b		16	
18		19a	
19b		20	
21		22	
23		24	
A		B	
C		E	
F		G	
H		I	
J		K	
L		© Pharmaceutical Society of Australia. Reproduced with permission 2022	

Abbreviations

5ht3	5-hydroxytryptamine
ACE	angiotensin-converting enzyme
AMH	<i>Australian Medicines Handbook</i>
ARB	Angiotensin receptor blocker
ATSIHP	Aboriginal and Torres Strait Islander health practitioner
BP	blood pressure
CAD	coronary artery disease
cap	capsule
CARPA	Central Australian Rural Practitioners Association
CARPA STM	<i>CARPA Standard Treatment Manual</i>
CD	Controlled delivery
CDC	Centre for Disease Control
CKD	chronic kidney disease
CNS	central nervous system
COPD	chronic obstructive pulmonary disease
CPM	<i>Clinical Procedures Manual</i>
CPR	cardiopulmonary resuscitation
CR	controlled release
CSLD	chronic suppurative lung disease
CVS	cardiovascular system
Depo	medroxyprogesterone depot injection
DNA	deoxyribonucleic acid
DPP4	dipeptidyl peptidase-4
eg	exempli gratia – for example
ENT	ear, nose and throat
EPO	epoetin (medicine group)
ER	extended release
g	gram
GLP-1	glucagon-like peptide-1
HCT	hydrochlorothiazide
HIV	human immunodeficiency virus
IM	intramuscular (in the muscle)
IV	intravenous (in the vein)
kg	kilogram
L	litre

LNG-ECP	levonorgestrel emergency contraceptive pill
mg	milligram
MIMS	medicines information reference
min	minute
mL	millilitre
MRSA	Methicillin-resistant <i>Staphylococcus aureus</i>
NOAC	novel oral anticoagulant
NRT	nicotine replacement therapy
NSAID	non-steroid anti-inflammatory drug
O₂	Oxygen
OROS	osmotic-controlled release oral delivery system
ORS	oral rehydration salts
PHU	Public Health Unit
PID	pelvic inflammatory disease
PMS	pre-menstrual syndrome
qid	quarter in die – 4 times a day
SAS	special access scheme
SNRI	serotonin and noradrenaline reuptake inhibitor
SR	slow-release <i>OR</i> sustained release
SSRI	selective serotonin reuptake inhibitor
STI	sexually transmitted infection
TB	tuberculosis
UPA-ECP	ulipristal acetate emergency contraceptive pill
UTI	urinary tract infection
WBM	<i>Women's Business Manual</i>
XR	extended release
Blood tests	
BGL	blood glucose level
CK	creatinine kinase
FBC	full blood count
INR	international normalised ratio
LFT	liver function test
RF	rheumatoid factor
TFT	thyroid function test
UEC	urea, electrolytes and creatinine. Includes a kidney function test

Glossary

Active ingredient — chemical in a medicine that makes the desired changes in the body (eg aspirin reduces inflammation). Other non-active ingredients in medicines do not cause changes — these include wheat, sugar, colouring.

Acute — starts suddenly, usually lasts for a short time, can get worse quickly, may need urgent care.

Adrenaline (epinephrine) — hormone and neurotransmitter produced by the body, usually in response to stress. Increases heart rate, constricts blood vessels, and opens air passages. Also a medicine used to treat anaphylaxis, shock, cardiac arrest.

Allergic reaction — overly sensitive immune response to substances that are usually harmless (eg pollen).

Anaphylaxis (anaphylactic shock) — severe allergic reaction that needs urgent medical attention. Symptoms include difficult or noisy breathing, swelling of tongue or throat, loss of consciousness.

Angina — chest pain felt when the heart can't get enough blood and oxygen. Usually caused by coronary artery disease.

Antibiotic — medicine that kills or stops growth of certain bacteria. Antibiotics can attack a bacteria's cell wall, or stop it from reproducing.

Antibody — molecule made by body's immune system that can recognise and attack a specific invading germ. Created when person is infected with a germ or immunised against it. Can also pass from mother to child during breastfeeding, another good reason to breastfeed.

Antivirals — medicines that can slow growth of, but not kill, certain viruses. Used for treating viral diseases including HIV and herpes.

Arrhythmia — when the heart skips a beat, beats irregularly, beats too quickly or too slowly.

Autoimmune disorder — person's immune system mistakenly attacks its own body tissues and makes person unwell (eg rheumatoid arthritis).

Bacteria — single cell micro-organisms that exist everywhere. May be essential, helpful, harmless, or cause infections or disease.

Beta receptor — special molecule that responds to messages carried by central nervous system and hormones. Most found in the heart and blood vessels, where they can increase BP. Some medicines block beta receptors to reduce BP and the work load on the heart.

Bloating — swelling of the abdomen.

Cardiac arrest — heart is unable to contract properly so the blood stops circulating. Can be caused by a heart attack. Treatment is cardiopulmonary resuscitation (CPR) and defibrillation.

Cholesterol — fat-like substance made by the body and found in foods made from animals (eg meat, dairy products). Important for cell structure and function. Too much cholesterol will gradually clog blood vessels supplying the heart.

Chronic — illness or health condition that lasts for a long time.

Congenital — condition that a person is born with (eg a heart problem). It can be inherited (genetic) or caused by environmental factors.

Coronary artery disease (CAD) — blood vessels going to the heart are clogged and narrowed so the heart doesn't get enough oxygen and nutrients to function properly. People with CAD can have chest pain, can be short of breath, and are at risk of having a heart attack.

Diabetes — health condition where levels of glucose (sugar) in blood are too high. Pancreas can't make enough insulin to control blood glucose levels. Can lead to heart disease, kidney, eye or nerve damage

- **Type 1 diabetes** — autoimmune disease. Usually starts in childhood or adolescence, often in people who are otherwise healthy
- **Type 2 diabetes** — metabolic disease where some organs (eg pancreas, liver) become diseased or do not function normally. Usually starts in adulthood, contributed to by an unhealthy lifestyle (eg overweight, lack of physical activity).

Diuretic — medicine that increases urination and passing of water from body. Used to remove fluids that build up when the heart is not pumping properly.

Drug — substance that, when absorbed by body of a living organism, changes how the body normally functions. Called medicines when used to treat, cure, prevent, or diagnose disease, or to improve physical or mental wellbeing.

Electrolytes — electrically charged salts found in body fluids. Include sodium, potassium, magnesium, calcium. Help carry nerve impulses, help muscles contract. Kidney failure, severe vomiting, diarrhoea or dehydration can cause electrolytes to become unbalanced.

Full blood count (FBC) — laboratory blood test. Also called FBE – full blood examination, CBC – complete blood count, CBE – complete blood evaluation.

Fungus — an organism that's not a plant, animal or bacteria. Yeasts, moulds and mushrooms are all types of fungi. Some fungi grow on human skin and nails and cause infection — more common in moist conditions. Penicillin is made by a fungus.

Heart attack (myocardial infarction) — blockage of blood to the heart causing heart cells to die. Cardiac arrest occurs when the heart is unable to contract.

Histamine — produced as part of the body's immune response to a threat (eg from bacteria or viruses). It triggers inflammation that helps damaged body parts to heal, and acts as a neurotransmitter. Antihistamines or histamine antagonists inhibit the action of histamine and are used to treat allergic reactions (eg runny nose).

Hormone — chemical released in one part of the body that takes messages through the blood stream to cause changes in another part of the body.

Hyperglycaemia — blood glucose levels too high. Can indicate diabetes or impaired glucose tolerance. Happens when body doesn't make enough insulin or can't use it properly, or person with diabetes isn't taking enough blood glucose control medicine.

Hypoglycaemia (Hypo) — blood glucose level too low. Causes person to tremble, sweat, and become confused. Can happen if person gets too much insulin or has not been eating properly. Hypos range from minor to very serious.

Immunisation — receiving a vaccine and then becoming immune to a disease. Vaccines create immunity by enabling the body to build antibodies to fight the particular disease (eg polio, whooping cough).

Infection — invasion of micro-organisms (eg virus, bacteria, fungus) in a body part or tissue. Can cause damage or disease.

Inflammation — body's response to infection, damage or irritants. Caused by increased movement of plasma and white blood cells into damaged tissues, makes tissue look red and swollen.

International normalised ratio (INR) — test of how well blood clots. Mainly used to check warfarin therapy, which is used to thin the blood.

Liver enzyme-inducing medicines — medicines that cause liver to make more of some enzymes it normally produces. Extra enzymes change the way other medicines work (eg increasing or decreasing their effect). Medicines causing the liver to make more enzymes include:

- Strong effect — carbamazepine, enzalutamide, phenytoin, rifampicin, St John's wort
- Moderate effect — bosentan, efavirenz, etravirine, modafinil
- Other — aprepitant, corticosteroids, dabrafenib, nevirapine, phenobarbitone, rifabutin, ritonavir, tipranavir, vemurafenib

Medicine — drug used to treat, cure, prevent, diagnose disease, or to improve physical or mental wellbeing.

Metabolism — the chemical and physical processes in the body that use energy for growth and to maintain life. Hormone thyroxine helps determine how fast or slow the chemical reactions of metabolism happen in a person's body.

Micro-organism — organism that is too small to see without a microscope. Usually single cell organism such as bacteria.

Mood — emotional state, may last for longer than usual if person is unwell.

Methicillin-resistant *Staphylococcus aureus* (MRSA) — type of *Staphylococcus aureus* bacteria resistant to methicillin and some other antibiotics. Usual antibiotics don't work so infection harder to treat, more dangerous to the patient.

Neurotransmitter — chemical used by the brain and nerves to pass messages.

Opioid — medicine that binds to receptors in the brain, decreases pain and increases pain tolerance. Opioids include heroin, morphine, codeine.

Organism — living thing such as an animal, plant, fungus, bacteria.

Osteoporosis — condition where bones become thinner and weaker over time.

Pathogenic — something able to cause disease or infection (eg a germ).

Platelets — similar to cells, circulate in the blood. Not enough can lead to excessive bleeding, too many can cause unwanted blood clots.

Prophylaxis — use of a medicine or other treatment to prevent disease.

Receptor in the brain — sensory nerve ending that changes specific stimuli into nerve impulses.

Resistance (to antibiotic) — when antibiotic once used to kill a certain bacteria no longer does so (ie antibiotic stops working). For example mupirocin is no longer used on school sores as resistance quickly develops.

Serum sickness — body's immune system reacts to antibodies that come from animals (eg in antivenoms). Can take up to 2 weeks to develop. Usually includes rashes, itching, muscle or joint pain — but can be more serious.

Shock — when there is not enough blood being pumped around the body. Life threatening condition usually brought on by serious injury or illness.

Steroids — hormones that are important for metabolism, immune reactions, water and salt balance. Human body produces a range of steroids for different purposes. Steroids are also strong, effective medicines (cream, ointment, tablet, injection) for a variety of medical conditions (eg allergic reactions, asthma, skin conditions).

Stroke — supply of blood to the brain is disrupted because an artery is blocked or has burst. Lack of oxygen causes brain cells to be damaged or die.

Therapeutic — helps treat or improve illness.

Triple whammy — dangerous combination of 3 medicines: ACE inhibitor/ARB + diuretic + NSAID. Can cause kidney failure. Patients taking ACE inhibitors or ARBs **and** diuretics **should not** take NSAIDs.

- ACE inhibitor/ARB — decrease blood pressure and increase blood flow by widening the blood vessels, increases blood flow out of the kidneys
- Diuretic — acts on the kidneys, increases urination and passing of water from body
- NSAIDs — anti-inflammatory analgesics (eg aspirin, ibuprofen) restrict blood flow to the kidneys

Interaction is more dangerous if the kidneys are already starting to fail.

Urinary tract infection — infection of kidney, bladder or urinary tract.

Vaccination — having a vaccine, ie actually having the injection.

Virus — infectious agent that grows inside other organisms. Causes an immune response. Antibiotics can't fight viruses, but antiviral medicine can slow their growth, and vaccines help immunise the body against them.

Anatomy dictionary

Using this dictionary

This dictionary gives a brief overview of some body organs and systems.

- **First point** tells you what it does and how it works
- **Second point** tells you about things that can make it stronger or weaker
- **Third point** tells you how it is affected by medicines or other drugs

Brain



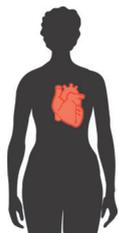
- The brain is the centre of the nervous system and controls all other organ systems in the body through electrical impulses or chemicals
- Affected by diseases such as epilepsy and mental illnesses (eg depression, schizophrenia). Damaged by impact (injury), lack of blood supply, chemicals in the blood (eg alcohol). Exercise helps keep a good blood supply to the brain and can improve depression
- Some medicines alter messages being sent within, and to and from the brain (eg pain messages). Medicines can help to control seizures, relieve anxiety and depression, make you sleep

Central nervous system (CNS)



- CNS is made up of the brain and spinal cord. Operates using electrical impulses or chemicals so all parts of the body can communicate
- Damaged by injury and infection. Damage can result in paralysis if messages from the brain can't pass along spinal cord
- Drugs such as alcohol and opioids can depress (slow) CNS so that the heart, breathing, or movements may slow or stop altogether. Some medicines act by stimulating or depressing the CNS or reducing pain messages

Heart



- The heart is a muscle that contracts regularly to pump blood around the body
- Regular exercise makes the heart strong. Damaged or weakened by smoking, lack of physical activity, fatty and/or salty foods. Blockages that stop blood reaching it can cause a heart attack. Affected by cardiovascular diseases such as high BP, problems with rhythm (arrhythmia), diabetes
- Medicines can help the heart by
 - ▶ Evening out the heartbeat (antiarrhythmics)
 - ▶ Thinning the blood (antiplatelets, warfarin)
 - ▶ Opening up or relaxing blood vessels and lowering BP (antihypertensives)
 - ▶ Removing excess fluid (diuretics)
 - ▶ Lowering fat (lipids) in the blood
 - ▶ Dissolving blood clots or stopping blood clots forming (thrombolytics)

Blood — circulatory/cardiovascular system (CVS)



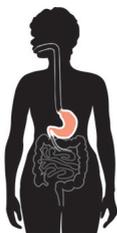
- CVS is made up of the heart and blood vessels (arteries, veins and capillaries)
- Good blood supply to all parts of the body needed for good health — blood provides nutrients and oxygen, removes waste. Damaged by smoking (kills small capillaries and blocks arteries), diabetes (damages walls of blood vessels), too much fatty food (blocks arteries)
- See *Heart* for how medicines affect the blood system

Lungs — respiratory system



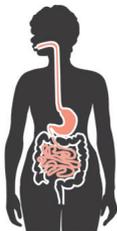
- Lungs put oxygen into the blood so it is circulated around the body
- Badly damaged by smoke, dust, infections (eg pneumonia), especially during childhood. Affected by conditions such as asthma and COPD. Lungs are kept healthy with exercise, good hygiene, not smoking, keeping out of dust and fire smoke
- Medicines help treat lung infections (eg antibiotics), control asthma, help breathing

Stomach



- The stomach is the main organ in the digestive system. It begins breakdown (digestion) of food by churning it with enzymes and acid
- Damaged by infections that cause ulcers, too much acid, too much alcohol, some medicines
- Medicines treat infections and help stop the stomach producing too much acid (eg proton pump inhibitors). Some medicines (eg NSAIDs) must be taken with food so they don't damage stomach lining

Digestive system



- Digestive system breaks down food, provides nutrition for the body, removes waste. Includes mouth, oesophagus, stomach, intestines, rectum
- Doesn't work well if not enough fibre (eg fruit, vegetables, grains) in food eaten or if person eats too much. Bowel cancer is associated with obesity
- Medicines can help reduce acid in the stomach, and relieve nausea (antiemetics), constipation (laxatives), diarrhoea

Kidneys — urinary system



- Kidneys help remove waste from the blood and regulate the body
- Affected by repeated urinary tract infections, skin infections, high BP, diabetes, too much alcohol (grog), old age
- Can be badly damaged by taking too much of some medicines. Other medicines help damaged kidneys function better and remove waste from the body

Liver



- The liver cleans the blood and helps with digestion
- Badly damaged by too much alcohol (grog), infections (eg hepatitis), too much of some medicines (eg paracetamol)
- Medicines can help treat infections and improve functioning

Pancreas



- Pancreas makes hormones (eg insulin) and enzymes that help to break down food in the small intestine
- Damaged by too much alcohol, gallstones, infections (eg mumps). If pancreas can't make enough insulin to break down sugar — person will develop diabetes
- Medicines can help increase the amount of insulin made by the pancreas to help control diabetes, and replace enzymes that break down food

Thyroid



- The thyroid is one of the largest glands in the body. Produces hormones that regulate metabolism and affect the growth and functioning of many other systems in the body
- Wrong amounts of thyroid hormones can make people very unwell
- Medicine (eg thyroxine) can help to control amount of thyroid hormone in the body

Reproductive system



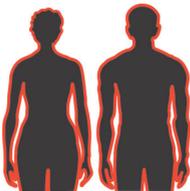
- In women — vagina, uterus, ovaries. In men — testes, penis
- Damaged by infections, especially STIs. Problems for women include having trouble getting pregnant, bleeding, cancer
- Medicines can prevent pregnancy (eg the Pill), help to control bleeding and ovulation, and treat infection. Some medicines can harm production of sperm, others can harm an unborn baby

Musculoskeletal system



- Musculoskeletal system gives us shape, lets us move by contracting the muscles to pull the bones
- Affected by injuries that break bones or tear muscles, bone infections, arthritis, osteoporosis. Physical activity and good nutrition when young build strong bones and muscles
- Some medicines can help build bones, others can damage them. Medicines can help to relieve pain associated with arthritis and inflammation, and treat infections

Skin



- The skin is the largest body organ. It helps regulate temperature, protects the body from germs and fluid loss, and stores water, fat and vitamin D. It allows us to feel sensations
- Damaged by injuries (especially burns), too much sun, smoking. Affected by dermatitis, eczema, allergies, infections
- Medicines can treat infections, reduce inflammation and allergies (eg cortisone creams)

Ears



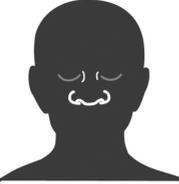
- The inner and outer ear let us hear by sensing movements in the air and converting them to signals that are sent to the brain. The inner ear also helps us to balance
- Structure of ear can be badly damaged by meningitis, chest and ear infections (especially when young) resulting in poor hearing, learning, language development
- Medicines can help treat meningitis, ear and respiratory infections

Eyes



- Eyes allow us to see by detecting light and converting it into a picture (image) in our brain
- Affected by allergies, infections, glaucoma. Badly damaged by too much sun (especially midday sun), diabetes, smoking, infections such as trachoma. Important to protect eyes by keeping them clean, out of bright light, eating good food, having regular eye checks
- Medicines can help treat eye infections, glaucoma, allergies

Nose



- The nose lets us smell and taste, cleans and warms the air we breathe in
 - Allergies and infections can irritate lining of the nose causing swelling and blockages, make the nose run
 - Medicines can treat allergies, or open a blocked nose (eg nasal sprays)
-

Calculating medicine doses and drip rates

Dose calculations

- Dosages often written as amount/kg/dose (eg 25mg/kg/dose)
 - This means a dose is made up of 25mg for each kg of body weight
- **Dose needed = amount of mg/kg × weight of person in kg**

Example

- Amount in mg/kg is 25mg/kg, weight of person is 12kg
- Dose needed = 25 (mg/kg) × 12 (kg) = 300mg

Table 6.4 Calculating doses

TABLETS	
Number of tablets needed = dose needed [a] ÷ strength of tablet [b]	<i>Example:</i> Dose needed is 15mg [a] Strength of tablet is 10mg [b] Number of tablets = 15mg ÷ 10mg = 1.5 = 1½ tablets
MIXTURES OR INJECTIONS — small volume IM or IV push	
Volume needed (mL) = (dose needed [a] ÷ strength of mixture or injection [b]) × volume this strength is in mL [c] OR $\frac{\text{dose needed (a)} \times \text{volume this strength is in mL (c)}}{\text{strength of mixture or injection (b)}}$	<i>Example 1:</i> Dose needed is 300mg [a] Strength is 250mg/5mL [b/c] Volume needed = (300 ÷ 250) × 5mL = 1.2 × 5 = 6mL OR Volume needed = $\frac{300 \times 5}{250}$ = 6mL
	<i>Example 2:</i> Dose needed is 20mg [a] Strength is 30mg/mL [b/c] Volume needed = (20 ÷ 30) × 1 = 0.67mg × 1 = 0.67mL

Dosage examples given in mg, but same formulas can be used for other strengths (eg microgram). Must use same unit for strength and for dose needed (eg mg and mg, microgram and microgram)

Quick calculations

- **Dose needed** = amount of medicine per kg × body weight (kg)
- **Number of tablets needed** = dose needed ÷ strength of tablet
- **Volume of mixture or injection needed (mL)** =
$$\frac{\text{dose needed}}{\text{strength of mixture or injection}} \times \text{volume this strength is in (mL)}$$

Drip rate and infusion rate calculations

Table 6.5 Calculating drip rates and infusion rates for IV fluids

GRAVITY ADMINISTRATION SET	
Remember: Check drop rate on infusion set packet (eg 20 drop/mL, 60 drop/mL)	
Rate (drops/minute) = (total volume of solution (mL) [a] × number of drops/mL [b]) ÷ time in minutes [c]	Example Volume of fluid to give is 1,000mL (1L) [a] Set delivers 20 drop/mL [b] Time to give is 5 hours = 5 × 60 = 300 minutes [c] Rate (drops/min) = (1,000mL × 20 drops/mL) ÷ 300min = 20,000 drops ÷ 300 = 67 drops/min
INFUSION PUMP — setting dials	
Remember: Always check instructions for your machine	
Rate (mL/hr) = total volume of solution (mL) [a] ÷ time in hours [b]	Example Volume of medicine is 5mL, volume of fluid is 1000mL (1L). Total volume of solution to give is 1,005mL [a] Time to give is 5 hours [b] Rate (mL/hr) = 1,005mL ÷ 5 hours = 201mL/hr

Units and concentrations

- 1 litre (L) = 1,000 millilitres (mL)
- 1 gram (g) = 1,000 milligrams (mg)
- 1 milligram (mg) = 1,000 micrograms
- 1% solution = 1g of solute dissolved in 100mL of solution
- 1:1,000 = 1g solute dissolved in 1,000mL of solution = 1mg solute dissolved in 1mL of solution

Converting units

- Grams (g) to milligrams (mg) = g × 1,000
 - OR Move decimal point 3 numbers to right (1g = 1.000g = 1,000mg)
- Milligrams (mg) to grams (g) = mg ÷ 1,000
 - OR Move decimal point 3 numbers to left (1mg = 0001.0mg = 0.001g)
- Milligrams (mg) to micrograms = mg × 1,000
 - OR Move decimal point 3 numbers to right (1mg = 1.000mg = 1,000microgram)
- Micrograms to milligrams (mg) = microgram ÷ 1,000
 - OR Move decimal point 3 numbers to left (1microgram = 0001.0microgram = 0.001mg)
- Litres (L) to millilitres (mL) = L × 1,000
 - OR Move decimal point 3 numbers to right (1L = 1.000L = 1,000mL)

Index

Symbols

5HT3 antagonists
ondansetron 216

A

Ace Inhibitors

perindopril 114

Acetazolamide 184

Aciclovir 50

Actrapid 174

Adrenaline 28

agonist (long acting) 288

budesonide + formoterol 288

fluticasone furoate + vilanterol 288

agonist (long acting) fluticasone propionate
+ formoterol 288

agonist (long acting) fluticasone propionate
+ salmeterol 288

agonists 188

apraclonidine 188

agonists (long acting) 290, 296

formoterol 290

salmeterol 290

agonists (short acting) 296

salbutamol 296

terbutaline 296

Albendazole 52

Aldosterone antagonists

spironolactone 138

Allergy and Anaphylaxis

adrenaline 28

antihistamines 30, 32

epinephrine 28

loratadine 30

promethazine 32

Allopurinol 230

Alogliptin 170

Alpha 188

Aminoglycosides

gentamicin 66

Amiodarone 116

Amlodipine 124

Amoxicillin 78

Amoxicillin and Clavulanic Acid 78

Ampicillin 78

Anaemia

darbopoetin 102

Anaesthetic

lidocaine 34

lignocaine 34

local anaesthetics 34

Analgesia

tramadol 42

tramadol and paracetamol 42

Analgesics

morphine 36

oxycodone 36

oxycodone and naloxone SR 36

Angina

nitrates 136

Antacids 204

antagonists 212

nizatidine 212

Anthelmintics

albendazole 52

ivermectin 68

pyrantel 82

Antiarrhythmics

amiodarone 116

atropine 120

digoxin 128

Antibacterials

antimycobacterials 84, 86

azithromycin 54

cephalosporins 56

ciprofloxacin 58

clindamycin 60

doxycycline 62

gentamicin 66

metronidazole 70

nitrofurantoin 74

penicillins 78

roxithromycin 54

trimethoprim 90

trimethoprim and sulfamethoxazole 90

vancomycin 92

Antibacterials (ears)

ciprofloxacin 156

- Antibacterials (skin)
 - nanocrystalline silver dressing 152
 - silver sulfadiazine 152
- Anticholinergic medicines
 - benzotropine 238
- Anticholinergics (inhaled)
 - ipratropium 292
 - tiotropium 292
- Anticoagulants
 - apixaban 98
 - dabigatran 100
 - enoxaprin 104
 - rivaroxaban 98
 - warfarin 112
- Antidepressants
 - citalopram 282
 - desvenlafaxine 280
 - fluvoxamine 282
 - mirtazapine 274
 - paroxetine 282
 - sertraline 282
 - venlafaxine 280
- Antidiarrhoeals
 - loperamide 208
 - opioid antidiarrhoeals 208
- Antidotes
 - naloxone 46
 - thiamine 48
- Antidotes and antivenoms
 - box jellyfish 44
 - red back spider 44
 - sea snakes 44
 - snakes 44
 - stonefish 44
- Antiemetics
 - metoclopramide 210
 - ondansetron 216
 - prochlorperazine 210
- Antiepileptics
 - benzodiazepines 246
 - carbamazepine 240
 - levetiracetam 242
 - midazolam 246
 - other antiepileptics 248
 - phenytoin 248
- Antifungals
 - fluconazole 64
 - miconazole 72
- Antifungals (*continued*)
 - nystatin 76
 - terbinafine 88
- Antihistamines
 - loratadine 30
 - promethazine 32
- Antihistamines (eye)
 - ketotifen 186
 - olopatadine 186
- Antihypertensives
 - ACE Inhibitors 114
 - beta blockers 122
 - calcium channel blockers 124, 126
 - hydralazine 132
 - hydrochlorothiazide and irbesartan 142
 - indapamide 142
 - indapamide and perindopril 142
 - irbesartan 118
 - irbesartan and hydrochlorothiazide 118
 - methyldopa 134
 - perindopril 114
 - sartans 118
 - telmisartan 118
 - thiazide diuretics 142
- Anti-infectives
 - probenecid 80
- Antimycobacterials
 - ethambutol 84
 - isoniazid 86
 - pyrazinamide 84
 - rifampicin 86
- Antiplatelet medicines
 - aspirin 96
 - aspirin and clopidogrel 96
 - clopidogrel 96
- Antipsychotics
 - droperidol 272
 - haloperidol 272
- Antipsychotics (atypical/2nd generation)
 - olanzapine 278
 - paliperidone 278
 - risperidone 278
- Antivirals
 - aciclovir 50
 - famciclovir 50
 - nirmatrelvir and ritonavir 94
 - valaciclovir 50
- Apixaban 98

Apraclonidine 188
 Aspirin 96
 Aspirin and clopidogrel 96
 Atenolol 122
 Atorvastatin 140
 Atropine 120
 Avanafil 222
 Azithromycin 54

B

Beclometasone 286
 Benzathine benzylpenicillin 78
 Benzatropine 238
 Benzodiazepines
 diazepam 270
 midazolam 246
 temazepam 270
 Benzyl benzoate 144
 Benzylpenicillin 78
 Beta 290, 296
 Beta Blockers
 atenolol 122
 bisoprolol 122
 carvedilol 122
 labetolol 122
 metoprolol 122
 nebivolol 122
 Beta-blockers (eye)
 timolol 202
 Bisoprolol 122
 Blood and electrolytes
 anticoagulants 98, 104, 112
 antiplatelet medicines 96
 haemostasis 108, 110
 medicines for Anaemia 102
 thrombolytics 106
 vitamin K 110
 Box jellyfish antivenom 44
 Bronchodilator 296
 beta 290, 296
 formoterol 290
 salmeterol 290
 terbutaline 296
 Budesonide 286
 Budesonide + formoterol 288

C

Calcitriol 164
 Calcium carbonate 166
 Calcium channel blockers
 amlodipine 124
 diltiazem 126
 felodipine 124
 lercanidipine 124
 nifedipine 124
 verapamil 126
 Calcium gluconate 166
 Calcium salts
 calcium carbonate 166
 calcium gluconate 166
 Carbamazepine 240
 Cardiovascular
 aldosterone antagonists 138
 angina 136
 antiarrhythmics 116, 120, 128
 antihypertensives 114, 118, 122, 124,
 126, 132, 134, 142
 heart failure 130, 138
 statins 140
 Carvedilol 122
 Cefalexin 56
 Cefalozin 56
 Ceftazidime 56
 Ceftraixone 56
 Cefuroxime 56
 Cephalosporins
 cefalexin 56
 cefazolin 56
 ceftazidime 56
 ceftraixone 56
 cefuroxime 56
 Cerumenolytics (wax softeners)
 docusate 158
 sodium bicarbonate 158
 Chloramphenicol 190
 Ciclesonide 286
 Ciprofloxacin 58, 156
 Citalopram 282
 Citravesent 224
 Clindamycin 60
 Clopidogrel 96
 Cochicine 232
 Codeine and paracetamol 40

Combination analgesics
 paracetamol and codeine 40
 Combined analgesia
 tramadol and paracetamol 42
 Combined oral contraceptives
 levonorgestrel + ethylestradiol 252
 Corticosteroids
 dexamethasone 226
 hydrocortisone 226
 prednisolone 226
 Corticosteroids (eye)
 dexamethasone 192
 prednisolone + phenylephrine 192
 Corticosteroids (inhaled)
 beclometasone 286
 budesonide 286
 ciclesonide 286
 fluticasone propionate 286
 Corticosteroids (inhaled) + beta 288
 Corticosteroids with anti-infectives
 dexamethasone + framycetin +
 gramicidin 154
 triamcinolone + neomycin + nystatin +
 gramicidin 154
 Covid19 Antivirals
 nirmatrelvir and ritonavir 94
 Crothamiton 144

D

Dabigatran 100
 Dapaglifozin 178
 Darbopoetin 102
 Dermatological
 benzyl benzoate 144
 crothamiton 144
 dimeticone 146
 hydrocortisone 148
 medicines for eczema 148
 medicines for other skin infections 152
 medicines for warts 150
 permethrine 144
 podophyllotoxin 150
 scabicides and pediculicides 144, 146
 Desvenlafaxine 280
 Dexamethasone 192, 226
 Dexamethasone + framycetin + gramicidin
 154
 Diazepam 270

Dicloxacillin 78
 Digoxin 128
 Diltiazem 126
 Dimeticone 146
 Dipeptidyl peptidase 170
 Diuretics
 frusemide 130
 furosamide 130
 Docusate 158, 206
 Docusate + senna 206
 Dopamine antagonists
 metoclopramide 210
 prochlorperazine 210
 Doxycycline 62
 Drip rate calculation
 intravenous infusion 324
 Droperidol 272
 Drug calculations
 medication administration 324
 Drug dose calculation
 intravenous infusion 324
 Drug doses
 converting units 324
 units and concentrations 324
 Drugs for Gout
 probenecid 80
 Dulaglutide 168
 Dyslipidaemia
 atorvastatin 140
 rosuvastatin 140
 simvastatin 140

E

Emergency contraceptive pills
 levonorgestrel 254
 ulipristal 254
 Empaglifozin 178
 Endocrine
 calcitriol 164
 calcium carbonate 166
 calcium gluconate 166
 dapaglifozin 178
 dulaglutide 168
 empaglifozin 178
 ertuglifozin 178
 gliclazide 180
 glimepiride 180
 glucagon 172

Endocrine (*continued*)

- insulin (long, short, mixed) 174
 - levothyroxine 182
 - linagliptine 170
 - medicines affecting bone 164
 - medicines affecting calcium homeostasis 166
 - medicines for diabetes 168, 170, 172, 174, 176, 178, 180
 - medicines for thyroid disorders 182
 - metformin 176
 - saxagliptine 170
 - semaglutide 168
 - sitagliptine 170
- Enoxaprin 104
- Epinephrine 28
- Ergometrine 256
- Ertuglifozin 178
- Erythropoietin agonists
- darbopoetin 102
- Ethambutol 84
- Etonogestrel 258
- Eye lubricants 194

F

- Famcyclovir 50
- Felodipine 124
- Flucloxacillin 78
- Fluconazole 64
- Fluorescein 196
- Fluticasone furoate 286
- Fluticasone furoate + vilanterol 288
- Fluticasone propionate 286
- Fluticasone propionate + formoterol 288
- Fluticasone propionate + Salmeterol 288
- Fluvoxamine 282
- Folate 300
- Folic acid 300
- Frusamide 130
- Furosamide 130

G

- Gastrointestinal
- 5HT₃ antagonists 216
 - antacids 204
 - antidiarrhoeals 208
 - antiemetics 210, 216

Gastrointestinal (*continued*)

- docusate 206
- docusate + senna 206
- dopamine antagonists 210
- laxatives 206
- loperamide 208
- medicines for diarrhoea 218
- medicines for dyspepsia, reflux, and peptic ulcers 204, 212, 214
- medicines for perianal disorders 220
- metoclopramide 210
- nizatidine 212
- omeprazole 214
- ondansetron 216
- oral rehydration salts 218
- poloxamer 206
- prochlorperazine 210
- stool softeners and stimulant laxatives 206
- topical anorectal 220

Genitourinary

- avanafil 222
 - medicines for erectile dysfunction 222
 - phosphodiesterase 5 inhibitors 222
 - sildenafil 222
 - tadalafil 222
 - urinary alkalinisers 224
 - ardenafil 222
- Gentamicin 66
- Gliclazide 180
- Glimepiride 180
- Glucagon 172
- Glucagon-like peptide -1 agonists
- dulaglutide 168
 - semaglutide 168
- Glyceryl Trinitrate 136
- Gout
- probenecid 80

H

- Haemostasis
- tranexamic Acid 108
 - vitamin K 110
- Haloperidol 272
- Heart failure
- loop Diuretics 130
 - spironolactone 138

Heparins
 enoxaprin 104
 Hydralazine 132
 Hydrochlorothiazide and irbesartan 142
 Hydrocortisone 148, 226

I

Ibuprofen 234
 Immunisations 298
 Immunomodulators and antineoplastic
 corticosteroids 226
 dexamethasone 226
 hydrocortisone 226
 immunosuppressants 226, 228
 prednisolone 226
 Immunosuppressants 228
 corticosteroids 226
 dexamethasone 226
 hydrocortisone 226
 prednisolone 226
 Indapamide 142
 Indapamide and perindopril 142
 Indometacin 234
 inhibitors 170
 alogliptin 170
 linagliptin 170
 saxagliptin 170
 sitagliptin 170
 vildagliptin 170
 Injections
 drug calculations 324
 Insulin (long, short, mixed) 174
 Insulins
 insulin (long, short, mixed) 174
 Intravenous infusion
 drip rate calculation 324
 medicines dose calculation 324
 Iodine 302
 Ipratropium 292
 Irbesartan 118
 Irbesartan and hydrochlorothiazide 118
 Iron 304
 Isoniazid 86
 Isosorbide dinitrate 136
 Isosorbide mononitrate 136
 Ivermectin 68

K

Ketotifen 186

L

Labetolol 122
 Laxatives
 docusate 206
 docusate + senna 206
 poloxamer 206
 Lercanidipine 124
 Levetiracetam 242
 Levodopa + benserazide 244
 Levodopa + carbidopa 244
 levonorgestrel + ethylestradiol 252
 Levothyroxine 182
 Lidocaine 34
 Lignocaine 34
 Linagliptin 170
 Local anaesthetics
 lidocaine 34
 lignocaine 34
 Local anaesthetics (eye)
 oxybuprocaine 200
 tetracaine 200
 Loop Diuretics
 frusemide 130
 furosamide 130
 Loperamide 208
 Loratadine 30

M

Magnesium sulfate 260
 Medication administration
 drug calculations 324
 Metformin 176
 Methyldopa 134
 Metoclopramide 210
 Metoprolol 122
 Metronidazole 70
 Miconazole 72
 Midazolam 246
 Minerals
 iodine 302
 iron 304
 zinc 306
 Mirtazapine 274
 Misoprotol 264
 Mixtard 174

Montelukast 294
 Morphine 36
 Musculoskeletal
 allopurinol 230
 cochicine 232
 ibuprofen 234
 indometacin 234
 medicines for gout 230, 232
 NSAID 234
 osteoarthritis 234
 rubbing medicine 236
 topical musculoskeletal agents 236

N

Naloxone 46
 Nanocrystalline silver dressing 152
 Naphazoline 198
 Nasal decongestants
 oxymetazoline 160
 xylometazoline 160
 Nebivolol 122
 Neurological
 antiepileptics 240, 242, 246, 248
 benzotropine 238
 benzodiazepines 246
 carbamazepine 240
 levetiracetam 242
 levodopa + benserazide 244
 levodopa + carbidopa 244
 medicines for parkinsonism and related disorders 238, 244
 midazolam 246
 other antiepileptics 248
 phenytoin 248
 Nicotine 276
 Nifedipine 124
 Nitrates
 glyceryl trinitrate 136
 isosorbide dinitrate 136
 isosorbide mononitrate 136
 Nitrofurantoin 74
 Nizatidine 212
 Non-opioid analgesics
 paracetamol 38
 NSAIDs
 ibuprofen 234
 indometacin 234
 Nystatin 76

O

Obstetric and gynaecological
 ergometrine 256
 etonogestrel 258
 levonorgestrel + ethylestradiol 252
 levonorgestrel (ECP) 254
 magnesium sulfate 260
 medicines for contraception 252, 254, 258
 medicines in labour 256, 264, 266
 medicines in preeclampsia and eclampsia 260
 misoprostol 264
 oxytocin 266
 ulipristal 254
 Olanzapine 278
 Olopatadine 186
 Omeprazole 214
 Ondansetron 216
 Opioid analgesia
 tramadol 42
 Opioid analgesics 36
 combination 40
 Opioid antidiarrhoeals
 loperamide 208
 Opioid Antidote
 naloxone 46
 Opioid Reversal
 naloxone 46
 Oral decongestants
 phenylephrine 162
 Oral rehydration salts 218
 Osteoarthritis
 ibuprofen 234
 indometacin 234
 Oxybuprocaine 200
 Oxycodone 36
 Oxycodone and naloxone SR 36
 Oxymetazoline 160
 Oxytocic medicines
 ergometrine 256
 misoprostol 264
 oxytocin 266
 Oxytocin 266

P

Paliperidone 278
 Paracetamol and codeine 40
 Paroxetine 282
 Pavtide 288
 Penicillins
 amoxicillin 78
 amoxicillin and clavulanic acid 78
 ampicillin 78
 augmentin 78
 benzathine benzylpenicillin 78
 benzylpenicillin 78
 clavam 78
 curam 78
 dicloxacillin 78
 flucloxacillin 78
 phenoxymethylpenicillin 78
 procaine benzylpenicillin (procaine penicillin) 78
 Perindopril 114
 Perindopril + amlodipine 114
 Permethrine 144
 Phenoxymethylpenicillin 78
 Phenylephrine 162
 Phenytoin 248
 Phosphodiesterase 5 inhibitors
 avanafil 222
 sildenafil 222
 tadalafil 222
 vardenafil 222
 Phytomenadione 110
 Podophyllotoxin 150
 Poloxamer 206
 Prednisolone 226
 Prednisolone +phenylephrine 192
 Probenecid 80
 Procaine benzylpenicillin (procaine penicillin) 78
 Prochlorperazine 210
 Progestogens (implant) 258
 Promethazine 32
 Proton pump inhibitors
 omeprazole 214
 Psychotropic
 antidepressant 280, 282
 antidepressants 274
 antipsychotics 272

Psychotropic (*continued*)

 antipsychotics (atypical/2nd generation) 278
 benzodiazepines 270
 citalopram 282
 desvenlafaxine 280
 diazepam 270
 droperidol 272
 flvoxamine 282
 haloperidol 272
 medicines for anxiety and sleep disorder 270
 medicines for nicotine dependence 276, 284
 mirtazapine 274
 nicotine 276
 olanzapine 278
 paliperidone 278
 paroxetine 282
 risperidone 278
 sertraline 282
 temazepam 270
 varenicline 284
 venlafaxine 280
 Pyrantel 82
 Pyrazinamide 84

R

Red back spider antivenom 44
 Respiratory
 anticholinergics (inhaled) 292
 beclometasone 286
 beta 290, 296
 bronchodilator 290, 296
 budesonide 286
 budesonide + formoterol 288
 ciclesonide 286
 corticosteroids (inhaled) 286
 corticosteroids (inhaled) + beta 288
 fluticasone furoate 286
 fluticasone furoate + vilanterol 288
 fluticasone propionate 286
 fluticasone propionate + formoterol 288
 fluticasone propionate + Salmeterol 288
 formoterol 290
 ipratropium 292
 medicines for asthma and COPD 286, 288, 292, 294

Respiratory (*continued*)

- montelukast 294
- salbutamol 296
- salmeterol 290
- terbutaline 296
- tiotropium 292

Rifampicin 86

Risperidone 278

Rivaroxaban 98

Rosuvastatin 140

Roxithromycin 54

Rubbing medicine 236

S

Salbutamol 296

Saxagliptin 170

Scabicides and pediculicides

- benzyl benzoate 144
- crotamiton 144
- dimeticone 146
- permethrine 144

Sea snake antivenom 44

Semaglutide 168

Sertraline 282

Sildenafil 222

Silver sulfadiazine 152

Simvastatin 140

Sitagliptin 170

Snake antivenom 44

Sodium bicarbonate 158

Sodium-glucose co-transporter 2 (SGLT2)

- inhibitors
- dapaglifozin 178
- empaglifozin 178
- ertuglifozin 178

Spironolactone 138

Stains (eye)

- fluorescein 196

Statins

- atorvastatin 140
- rosuvastatin 140
- simvastatin 140

Stonefish

- antivenom 44

Stool softeners and stimulant laxatives

- docusate 206
- docusate + senna 206
- poloxamer 206

Sulfonylureas

- gliclazide 180
- glimepiride 180

T

Tadalafil 222

Telmisartan 118

Temazepam 270

Tenectaplastase 106

Terbinafine 88

Tetracaine 200

Thiamine 48

Thiazide diuretics

- hydrochlorothiazide + irbesartan 142
- indapamide 142
- indapamide and perindopril 142

Thrombolytics

- tenectoplastase 106

Thyroid hormones

- levothyroxine 182

Timoptol 202

Tiotropium 292

Topical musculoskeletal agents

- rubbing medicine 236

Tramadol 42

- opioid analgesia 42

Tranexamic acid 108

Triamcinolone + neomycin + nystatin +
gramicidin 154

Trimethoprim 90

Trimethoprim and sulfamethoxazole 90

Tuberculosis medicines

- ethambutol 84
- isoniazid 86
- pyrazinamide 84
- rifampicin 86

U

Urinary alkalinisers 224

V

Vaccines

- immunisations 298

Vaccines and immunoglobulins

- immunisations 298
- vaccines 298

Valacyclovir 50

Vancomycin 92
Vardenafil 222
Varenicline 284
Vasoconstrictors/decongestants (eye)
 naphazoline 198
Venlafaxine 280
Verapamil 126
Vildagliptin 170
Vitamin B9 300
Vitamin D substances
 calcitriol 164
Vitamin K 110
Vitamins
 folate 300
 folic acid 300
 vitamin B9 300

W

Warfarin 112
Worm medicine
 albendazole 52
 ivermectin 68
 pyrantel 82

X

Xylocaine
 adrenaline 34
Xylometazoline 160

Z

Zinc 306