

Drug	Indication	Class	Action	Contraindication	Side Effects
Alendronic acid	Osteoporosis; Paget's disease	Oral/IV Bisphosphonate	Reduces bone turnover by inhibiting the action of osteoclasts, the cells responsible for bone resorption; has a similar structure to naturally occurring pyrophosphate and so is readily incorporated into bone; as bone is resorbed, it accumulates in the osteoclasts where it inhibits activity and promotes apoptosis	Severe renal impairment; hypocalcaemia; upper GI disorders; smokers; dental disease	Oesophagitis; hypophosphataemia; osteonecrosis of the jaw; atypical femoral fracture
Allopurinol	Gout; renal calculi; hyperuricaemia	Oral Xanthine oxidase inhibitor	Xanthine oxidase metabolises xanthine (product from purines) to uric acid; inhibition lowers plasma uric acid reducing precipitation of uric acid in the joints/kidneys	Acute attacks of gout; recurrent skin rash; severe hypersensitivity; renal impairment; hepatic impairment	Trigger or worsen an acute attack of gout; skin rash; Stevens-Johnson syndrome; toxic epidermal necrolysis; allopurinol hypersensitivity syndrome
Amiodarone	Tachyarrhythmias (AF, SVT, VT, VF)	IV infusion Anti-arrhythmic	Blocks Na ⁺ , Ca ²⁺ , and K ⁺ channels, and inhibits α- and β-adrenergic receptors; these effects reduce spontaneous depolarisation, slow conduction velocity and increase resistance to depolarisation, overall interfering with AV node conduction	Severe hypotension; heart block; active thyroid disease	Hypotension; pneumonias; bradycardia; AV block; hepatitis; photosensitivity and grey discoloration of the skin; thyroid abnormalities
Amitriptyline	Depression; neuropathic pain	Oral TCA	Inhibits neuronal reuptake of 5-HT and noradrenaline from the synaptic cleft, thereby increasing their availability for neurotransmission; also blocks a wide array of receptors, including muscarinic, histamine, adrenergic and dopamine receptors, accounting for extensive adverse effects	Elderly; epilepsy; CVD; prostatic hypertrophy; glaucoma; constipation	Dry mouth; constipation; urinary retention; blurred vision; sedation; hypotension; arrhythmias; prolonged QT interval; prolonged QRS duration; convulsions; hallucinations; mania; breast changes; sexual dysfunction; tremor; dyskinesia; coma; respiratory failure
Amlodipine (alt. nifedipine)	HTN; stable angina	Oral CCB	Reduces movement of Ca ²⁺ into vascular and cardiac cells, reducing intracellular Ca ²⁺ concentration; this causes relaxation and vasodilation in arterial smooth muscle, lowering arterial pressure; in the heart it reduced myocardial contractility and suppresses cardiac conduction across the AVN, slowing ventricular rate and decreasing O ₂ demand	Poor LV function; AVN conduction delay; unstable angina; severe aortic stenosis	Ankle swelling; flushing; headache; palpitations; constipation; bradycardia; heart block; cardiac failure
Amoxicillin (alt. co-amoxiclav)	Infection; <i>H. pylori</i> -associated peptic ulcers; resistant HA infections	IV/oral Penicillin Gram+ve and Gram-ve broad-spectrum antibiotic	Inhibits enzymes responsible for cross-linking peptidoglycan in bacterial cell walls; this weakens cell walls, preventing them from maintaining an osmotic gradient; uncontrolled entry of water causes cell swelling, lysis and death	Hx of allergy; <i>C. difficile</i> infection; penicillin-associated liver injury; severe renal impairment	GI discomfort; antibiotic-associated colitis; allergy; skin rash; anaphylactic reaction; acute liver injury; jaundice
Aspirin	ACS; acute ischaemic stroke; CVD; PAD; cerebrovascular disease	Oral/rectal Antiplatelet (COX-inhibitor)	Irreversibly inhibits COX to reduce production of the pro-aggregatory factor thromboxane from arachidonic acid, reducing platelet aggregation and the risk of arterial occlusion	Children <16y/o; aspirin hypersensitivity; third trimester pregnancy; peptic ulceration; gout	GI irritation; peptic ulceration; haemorrhage; bronchospasm; tinnitus
Atenolol (see bisoprolol)	Ischaemic heart disease; angina; ACS; AF; SVT; HTN	Oral Beta-blocker	Via β ₁ -adrenoreceptors, β-blockers reduce force of contraction/speed of conduction in the heart; they slow ventricular rate by prolonging the refractory period of the AVN and reduce BP by reducing renin secretion	Asthma; heart failure; haemodynamic instability; heart block; hepatic failure	Fatigue; cold extremities; headache; GI discomfort; impotence
Beclometasone	Asthma; COPD	Inhaled Corticosteroid	Modifies transcription of genes; pro-inflammatory ILs, cytokines and chemokines are down-regulated and anti-inflammatory proteins are up-regulated; this reduces mucosal inflammation, widens airways and reduces mucus secretion	Hx of pneumonia; children	Oral candidiasis; hoarse voice; pneumonia
Bendroflumethiazide (see indapamide)	HTN	Oral Thiazide diuretic	Inhibits the Na ⁺ /Cl ⁻ co-transporter in the distal convoluted tubule, preventing reabsorption of Na ⁺ and osmotically associated water	Hypokalaemia; hyponatraemia; gout	Hyponatraemia; hypokalaemia; cardiac arrhythmias; impotence
Bisoprolol (see atenolol)	Ischaemic heart disease; angina; ACS; AF; SVT; HTN	Oral Beta-blocker	Via β ₁ -adrenoreceptors, β-blockers reduce force of contraction/speed of conduction in the heart; they slow ventricular rate by prolonging the refractory period of the AV node and reduce BP by reducing renin secretion	Asthma; heart failure; haemodynamic instability; heart block; hepatic failure	Fatigue; cold extremities; headache; GI discomfort; impotence
Carbamazepine	Epilepsy; trigeminal neuralgia	Oral/rectal Anti-epileptic	Unknown; may inhibit neuronal Na ⁺ channels, stabilising resting membrane potentials and reducing neuronal excitability	Pregnancy; anti-epileptic hypersensitivity syndrome; hepatic disease; renal disease; cardiac disease	GI discomfort; neurological effects; hypersensitivity; anti-epileptic hypersensitivity syndrome; oedema; hyponatraemia
Cefalexin (alt. cefotaxime)	UTI; RTI; severe/complicated antibiotic-resistant infection	Oral/IV/IM Cephalosporin Gram-ve (and some Gram+ve) broad-spectrum antibiotic	Inhibits enzymes responsible for cross-linking peptidoglycan in bacterial cell walls; this weakens cell walls, preventing them from maintaining an osmotic gradient; uncontrolled entry of water causes cell swelling, lysis and death	At risk of <i>C. difficile</i> infection; allergy; anaphylactic reaction; epilepsy; renal impairment	GI discomfort; antibiotic-associated colitis; hypersensitivity; neurological toxicity; seizures
Cetirizine (see chlorphenamine)	Allergies (hayfever); pruritis; urticaria; anaphylaxis	Oral Antihistamine (H ₁ -receptor antagonist)	Inhibits H ₁ -receptors, which is the main route for histamine to induce the features of immediate-type (type 1) hypersensitivity	Severe liver disease	Well tolerated

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Chlorphenamine (see cetirizine)	Allergies (hayfever); pruritis; urticaria; anaphylaxis	Oral/IV/IM in anaphylaxis Antihistamine (H1-receptor antagonist)	Inhibits H1-receptors, which is the main route for histamine to induce the features of immediate-type (type 1) hypersensitivity	Severe liver disease	Sedation
Ciprofloxacin (alt. levofloxacin)	UTI; severe gastroenteritis; LRTI	Oral/IV Quinolone Gram-ve broad-spectrum antibiotic	Inhibits DNA synthesis; particularly active against Gram-negative bacteria; these bacteria rapidly develop resistance which may spread horizontally	Seizures; children; prolongation of QT	GI discomfort; hypersensitivity; neurological effects; rupture of muscle tendons; prolonged QT interval; arrhythmias; <i>C. difficile</i> colitis
Citalopram (alt. sertraline)	Depression; panic disorder; OCD	Oral SSRI	Selectively inhibits the neuronal re-uptake of 5-HT from the synaptic cleft, thereby increasing its availability for neurotransmission	Epilepsy; peptic ulcer disease; young people; hepatic impairment	GI discomfort; weight changes; hypersensitivity; hyponatraemia; suicidal thoughts; lower seizure threshold; prolonged QT interval; haemorrhage; serotonin syndrome
Clopidogrel (alt. ticagrelor)	ACS; coronary artery stents; CVD; PAD; cerebrovascular disease	Oral Anti-platelet	Prevents platelet aggregation and reduces the risk of arterial occlusion by binding irreversibly to ADP receptors on the surface of platelets	Active haemorrhage; elective surgery; renal impairment; hepatic impairment	Haemorrhage; GI discomfort; thrombocytopenia
Codeine (alt. tramadol)	Pain	Oral/IM Weak opioid	Metabolised in the liver to produce small amount of morphine, which is a strong agonist of opioid receptors	Significant respiratory disease; renal impairment; hepatic impairment; elderly; uncontrolled epilepsy	Nausea; constipation; dizziness; drowsiness; neurological/respiratory depression
Diazepam (alt. midazolam)	Seizures; status epilepticus; alcohol withdrawal; anxiety; insomnia	IV/rectal/oral Benzodiazepine	Facilitates and enhances binding of GABA to the GABA _A receptor (Cl ⁻ channel), which opens in response and is the brain's main inhibitory neurotransmitter; opening the channel allows Cl ⁻ to flow into the cell, making the cell more resistant to depolarisation	Elderly; respiratory impairment; neuromuscular disease; liver failure	Drowsiness; sedation; coma; airway obstruction; dependence withdrawal reaction
Digoxin	AF; atrial flutter; severe heart failure	Oral/IV Cardiac glycoside	Increases the force of myocardial contraction and reduces heart rate by reducing conductivity within the AVN, preventing some impulses from being transmitted to the ventricles	Second-degree heart block; intermittent complete heart block; ventricular arrhythmias; renal failure; hypokalaemia; hypomagnesaemia; hypercalcaemia	Bradycardia; GI discomfort; rash; dizziness; visual disturbance
Donepezil (alt. rivastigmine)	AD; dementia in PD	Oral Acetylcholinesterase inhibitor	Inhibits the cholinesterase enzymes that break down acetylcholine in the CNS, increasing the availability of acetylcholine for neurotransmission, which is thought to improve cognitive function and reduce the rate of cognitive decline	Asthma; COPD; peptic ulcers; heart block; sick sinus syndrome; PD	Asthma/COPD exacerbation; peptic ulcers; haemorrhage; bradycardia; heart block; hallucinations; altered/aggressive behaviour
Doxycycline	Acne; LRTI; infective COPD exacerbation; pneumonia; PID	Oral Tetracycline Gram+ve and Gram-ve broad spectrum antibiotic	Inhibits bacterial protein synthesis; binds to ribosomal 30S subunits found specifically in bacteria and prevents binding of tRNA to mRNA, preventing addition of new AAs to the growing polypeptide chains	Pregnancy; breastfeeding; children ≤12y/o; renal impairment	D&V; hypersensitivity reactions; oesophageal irritation, ulceration and dysphagia; photosensitivity; discolouration/hypoplasia of tooth enamel; hepatotoxicity; intracranial HTN
Enoxaparin	VTE (DVT/PE); ACS	S/C injection LMWH	Inhibits the function of thrombin and FXa (by enhancing the anticoagulant effect of antithrombin), which are key components in the final common coagulation pathway that leads to formation of a fibrin clot	Clotting disorders; severe uncontrolled HTN; recent surgery or trauma; invasive procedures; renal impairment	Haemorrhage; injection-site bruising; hyperkalaemia; heparin-induced thrombocytopenia (HIT)
Erythromycin (alt. clarithromycin)	Respiratory/skin/soft tissue infections; severe pneumonia; <i>H. Pylori-associated</i> peptic ulcers	Oral/IV Macrolide Gram+ve (and some Gram-ve) broad spectrum antibiotic	Inhibits bacterial protein synthesis; binds to ribosomal 50S subunits, blocking translocation, a process required for elongation of the polypeptide chain	Macrolide hypersensitivity; severe hepatic impairment; severe renal impairment	D&V; GI discomfort; thrombophlebitis; allergy; antibiotic-associated colitis; cholestatic jaundice; QT interval prolongation; arrhythmias; ototoxicity
Finasteride	BPH	Oral 5α-reductase inhibitor	Inhibits intracellular 5α-reductase, which metabolises testosterone into the more potent androgen, dihydrotestosterone; as dihydrotestosterone stimulates prostatic growth, inhibition reduces prostatic enlargement and improves urinary flow	Pregnant women	Impotence; reduced libido; gynaecomastia; hair growth; breast cancer
Furosemide	Oedema; chronic heart failure	Oral/IV Loop diuretic	Acts on the ascending limb of the loop of Henle to inhibit the Na ⁺ /K ⁺ /2Cl ⁻ co-transporter (a protein responsible for transporting Na ⁺ , K ⁺ and Cl ⁻ from the tubular lumen into epithelial cells); water follows by osmosis, eliciting the diuretic effect	Hypovolaemia; dehydration; hepatic encephalopathy; hypokalaemia; hyponatraemia; gout	Dehydration; hypotension; low electrolyte state; hearing loss; tinnitus
Gabapentin (see pregabalin)	Epilepsy; neuropathic pain	Oral Anticonvulsant	Unknown; may bind with pre-synaptic voltage-sensitive Ca ₂₊ channels, where it prevents inflow of Ca ₂₊ and, in doing so, inhibits neurotransmitter release; this interferes with synaptic transmission and reduces neuronal excitability	Renal impairment	Drowsiness; dizziness; ataxia
Gaviscon	GORD; dyspepsia	Oral Compound alginate with antacid	Combined preparation containing an alginate and one or more antacid (e.g. sodium bicarbonate); the antacids buffer stomach acid, while the alginate increases viscosity of the stomach contents, reducing reflux of stomach acid into the oesophagus	Thickened milk preparations; renal failure	Diarrhoea; constipation

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Gentamicin	Sepsis; pyelonephritis; complicated UTI; endocarditis; bacterial skin/eye/ear infections	IV Aminoglycoside Gram-ve aerobic antibiotic	Enters bacterial cells via an O ₂ -dependent transport system and binds irreversibly to bacterial ribosomes (30S subunit) and inhibits protein synthesis	Neonates; elderly; renal impairment; myasthenia gravis	Nephrotoxicity; ototoxicity
Gliclazide	T2DM	Oral Sulfonylurea	Lowers blood glucose by blocking ATP-dependent K ⁺ channels in pancreatic B-cell membranes; this causes membrane depolarisation, which opens voltage-gated Ca ²⁺ channels and increases intracellular Ca ²⁺ , stimulating insulin secretion	Hepatic impairment; renal impairment; increased risk of hypoglycaemia	GI discomfort; hypoglycaemia; rare hypersensitivity reactions
GTN (glyceryl trinitrate) (see ISMN)	Acute angina; ACS	Sublingual tablet/spray Short-acting nitrate	Converted to NO, which increases cyclic guanosine monophosphate (cGMP) synthesis and reduces intracellular Ca ²⁺ in vascular smooth muscle cells, causing them to relax; relaxation of veins reduces cardiac preload and LV filling, reducing cardiac work and myocardial O ₂ demand, relieving symptoms	Severe aortic stenosis; haemodynamic instability; hypotension	Flushing; headaches; light-headedness; hypotension; tolerance
Indapamide (see bendroflumethiazide)	HTN	Oral Thiazide-like diuretic	Inhibits the Na ⁺ /Cl ⁻ co-transporter in the distal convoluted tubule, preventing reabsorption of Na ⁺ and osmotically associated water	Hypokalaemia; hyponatraemia; gout	Hyponatraemia; hypokalaemia; cardiac arrhythmias; impotence
ISMN (isosorbide mononitrate) (see GTN)	Angina prophylaxis; pulmonary oedema	Oral/transdermal Long-acting nitrate	Converted to NO, which increases cyclic guanosine monophosphate (cGMP) synthesis and reduces intracellular Ca ²⁺ in vascular smooth muscle cells, causing them to relax; relaxation of veins reduces cardiac preload and LV filling, reducing cardiac work and myocardial O ₂ demand, relieving symptoms	Severe aortic stenosis; haemodynamic instability; hypotension	Flushing; headaches; light-headedness; hypotension; tolerance
Lamotrigine	Epilepsy; seizures; bipolar disorder	Oral Anticonvulsant	Unknown; binds to voltage-sensitive neuronal Na ⁺ channels, interfering with Na ⁺ influx into the neuron; this impedes repetitive neuronal firing characteristic of seizure activity and may be its mode of action	Hypersensitivity to other antiepileptic drugs; hepatic impairment	Headache; irritability; blurred vision; dizziness; GI symptoms; skin rash; severe hypersensitivity reaction
Lansoprazole (see omeprazole)	Peptic ulcer; GORD; dyspepsia; <i>H. pylori</i> infection	Oral/IV PPI	Reduces gastric acid secretion by irreversibly inhibiting H ⁺ /K ⁺ -ATPase (the proton pump - responsible for secreting H ⁺ and generating gastric acid) in gastric parietal cells	Osteoporosis NB. Disguises symptoms of gastroesophageal cancer and increases risk of fractures	GI discomfort; headache; hypomagnesaemia
Levetiracetam	Epilepsy; seizures; status epilepticus	Oral/IV Anticonvulsant	Targets synaptic vesicle protein 2A (SV2A), expressed throughout the brain in both excitatory and inhibitory synapses as a glycoprotein located within the membranes of synaptic vesicles (where neurotransmitters are stored); interfering with SV2A function therefore modulates neuronal excitability	Renal impairment	Well tolerated Dizziness; drowsiness; weakness; headache
Loperamide	Diarrhoea	Oral Anti-motility drug	It is an opioid that does not penetrate the CNS, so has no analgesic effects; it is an agonist of the opioid μ receptors in the gut, increasing non-propulsive contractions of the gut smooth muscle, but reducing propulsive (peristaltic) contractions; as a result, transit of bowel contents is slowed and anal sphincter tone is increased	Acute UC; <i>C. diff</i> colitis; acute bloody diarrhoea (dysentery)	GI discomfort; constipation; flatulence
Losartan	T2DM; HTN; heart failure	Oral ARB	Inhibits the action of angiotensin II (ATII) on the angiotensin I receptor; ATII is a vasoconstrictor and stimulates aldosterone secretion; inhibition of its action reduces PVR, which lowers BP	Renal artery stenosis; AKI; pregnancy; breastfeeding; CKD	Hypotension; hyperkalaemia; renal failure
Mesalazine	UC; rheumatoid arthritis	Rectal/oral Aminosalicylate	Releases 5-aminosalicylic acid (5-ASA); mechanism unknown, but appears to exert anti-inflammatory and immunosuppressive effects topically on the gut	Aspirin hypersensitivity	GI discomfort; headache; leucopenia; thrombocytopenia; renal impairment; oligospermia; serious hypersensitivity reaction
Metformin	T2DM	Oral Biguanide	Lowers blood glucose primarily by reducing hepatic glucose output (glycogenolysis/gluconeogenesis); does NOT stimulate insulin secretion, therefore does NOT cause hypoglycaemia; cellular mechanism involves activation of AMP kinase, a cellular sensor which, when activated, has diverse effects on cell functions, including glucose metabolism	Renal impairment; AKI; severe tissue hypoxia; hepatic impairment; acute alcohol intoxication; chronic alcohol abuse	GI discomfort; lactic acidosis
Methotrexate	Rheumatoid arthritis; chemotherapy; psoriasis	Dihydrofolate reductase inhibitor	Prevents cellular replication by Inhibiting dihydrofolate reductase, which converts dietary folic acid to tetrahydrofolate (FH4), which is required for DNA and protein synthesis; also has anti-inflammatory and immunosuppressant effects	Pregnancy; severe renal impairment; abnormal liver function	Mucosal damage; bone marrow suppression; hypersensitivity reactions; hepatic cirrhosis; pulmonary fibrosis; overdose
Metoclopramide (alt. domperidone)	N&V; reduced gut motility	IV/IM Antiemetic	Inhibits the dopamine D ₂ -receptor, the main receptor in the chemoreceptor trigger zone (CTZ) - the area responsible for sensing emetogenic substances in the blood; inhibition also has prokinetic effects, promoting gastric emptying in conditions associated with reduced gut motility	Neonates; children; young adults; cardiac conduction abnormalities; hepatic impairment; intestinal obstruction; perforation; Parkinson's disease	Diarrhoea; extrapyramidal syndromes; acute dystonic reaction; QT-interval prolongation; arrhythmias
Metronidazole	Colitis a/w Abx; oral, surgical/OBGYN, protozoal infection; aspiration pneumonia	Oral/IV Anaerobic antibiotic (+protozoa)	In anaerobic bacteria, reduction generates a nitroso-free radical that binds to DNA, reducing synthesis and causing widespread damage, DNA degeneration and cell death; aerobic bacteria are unable to reduce metronidazole, hence inactivity in aerobes	Severe liver disease; alcohol	GI discomfort; hypersensitivity; peripheral/optic neuropathy; seizures; encephalopathy

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Morphine (alt. oxycodone)	Pain; MI; palliation; acute pulmonary oedema	Oral/IV Strong opioid	Activates the opioid μ receptor in the CNS; activation has several effects that, overall, reduces neuronal excitability and pain transmission; it also reduces SNS activity, reducing cardiac workload and O ₂ demand, as well as relieving symptoms	Hepatic failure; renal impairment; elderly; respiratory failure; biliary colic	Respiratory/neurological depression; N&V; pupillary constriction; constipation; pruritis; tolerance/dependence; withdrawal reaction
Naproxen (alt. ibuprofen)	Pain; inflammation	Oral NSAID (COX inhibitor)	Inhibits prostaglandin synthesis from arachidonic acid by inhibiting COX; non-selective - main therapeutic effect arise from COX-2 inhibition and main adverse effects arise from COX-1 inhibition	Severe renal impairment; heart failure; liver failure; NSAID hypersensitivity; peptic ulcer disease; GI haemorrhage; CVD	GI toxicity; renal impairment; cardiovascular events; hypersensitivity reactions; fluid retention
Omeprazole (see lansoprazole)	Peptic ulcer; GORD; dyspepsia; <i>H. pylori</i> infection	Oral/IV PPI	Reduces gastric acid secretion by irreversibly inhibiting H ⁺ /K ⁺ -ATPase (the proton pump - responsible for secreting H ⁺ and generating gastric acid) in gastric parietal cells	Osteoporosis NB. Disguises symptoms of gastroesophageal cancer and increases risk of fractures	GI discomfort; headache; hypomagnesaemia
Paracetamol	Pain; pyrexia	Oral/IV Analgesic	Weakly inhibits COX-2, the enzyme involved in prostaglandin metabolism; in the brain, COX-2 inhibition appears to increase the pain threshold and reduce prostaglandin E ₂ concentrations in the thermoregulatory region of the hypothalamus, controlling fever	Chronic excessive alcohol use; malnutrition; low body weight; severe hepatic impairment	Well tolerated Liver failure (in overdose)
Prednisolone (alt. dexamethasone)	Anaphylaxis; asthma; autoimmunity	Oral/IV/IM Systemic corticosteroid	Binds to cytosolic glucocorticoid receptors, which then translocate to the nucleus and bind to glucocorticoid-response elements, which regulate gene expression; they up-regulate anti-inflammatory genes and down-regulate pro-inflammatory genes	Infection; children	Infection; DM; osteoporosis; mood/behavioural changes; HTN; hypokalaemia; oedema; adrenal atrophy; Addisonian crisis; chronic glucocorticoid deficiency
Pregabalin (see gabapentin)	Epilepsy; neuropathic pain; anxiety	Oral Anticonvulsant	Unknown; may bind with pre-synaptic voltage-sensitive Ca ²⁺ channels, where it prevents inflow of Ca ²⁺ and, in doing so, inhibits neurotransmitter release; this interferes with synaptic transmission and reduces neuronal excitability	Renal impairment	Drowsiness; dizziness; ataxia
Ramipril	HTN; heart failure/ disease; DM nephropathy; CKD	Oral ACEi	Inhibits the action of ACE to prevent the conversion of ATI to ATII, a vasoconstrictor and stimulator of aldosterone secretion; inhibition of ATII production reduces PVR, which lowers BP	Renal artery stenosis; AKI; pregnancy; breastfeeding; CKD	Hypotension; persistent dry cough; hyperkalaemia; renal failure; angioedema; anaphylactoid reactions
Ranitidine	Peptic ulcer; GORD; dyspepsia	Oral Histamine H ₂ - receptor antagonist	Gastric acid is produced by the proton pump, which secretes H ⁺ into the stomach in exchange for drawing K ⁺ into cells; the proton pump is regulated by histamine and is activated when histamine binds to H ₂ -receptors; inhibiting the H ₂ -receptors therefore reduces gastric acid secretion	NB. Disguises symptoms of gastroesophageal cancer	Well tolerated Constipation; diarrhoea; dizziness; headache
Rivaroxaban (alt. apixaban)	VTE (DVT/PE); AF	Oral DOAC (FXa inhibitor)	Directly inhibits FXa, preventing conversion of prothrombin to thrombin, therefore inhibiting fibrin formation, preventing clot formation or extension in the veins and heart	Major haemorrhage; risk factors for major haemorrhage; hepatic disease; renal disease; pregnancy; breastfeeding	Haemorrhage (particularly GI); anaemia; GI discomfort; dizziness; raised liver enzymes
Salbutamol (alt. terbutaline)	Asthma; COPD; hyperkalaemia	Inhaled SABA	Stimulates B ₂ -receptors found in smooth muscle of the bronchi, gut, uterus blood vessels, activating a signalling cascade that leads to smooth muscle relaxation; also stimulates Na/K ATPase pumps, shifting K intracellularly	Cardiovascular disease	Tachycardia; palpitations; anxiety; tremor; muscle cramps
Senna	Constipation; faecal impaction	Oral Stimulant laxative	Increases water and electrolyte secretion from the colonic mucosa, thereby increasing the volume of colonic content and stimulating peristalsis	Intestinal obstruction; perforation; haemorrhoids; anal fissures	Diarrhoea; electrolyte imbalance; GI discomfort
Simvastatin (alt. atorvastatin)	CVS event prophylaxis; hyperlipidaemias	Oral Statin	Inhibits HMG CoA reductase, an enzyme involved in making cholesterol; they reduce hepatic cholesterol production and increase blood LDL clearance	Hepatic impairment; renal impairment; pregnancy; breastfeeding	Headache; GI disturbances; aches; myopathy; rhabdomyolysis; raised liver enzymes
Sodium valproate (valproic acid salt)	Epilepsy; seizures; status epilepticus; bipolar disorder	Oral Compound	Unknown; may weakly inhibit neuronal sodium channels, stabilising resting membrane potentials and reducing neuronal excitability; also increases brain GABA (principal inhibitory neurotransmitter) content, regulating neuronal excitability	Women of child-bearing age; time of conception; pregnancy; hepatic impairment; renal impairment	GI upset; neurological/psychiatric effects; thrombocytopenia; raised liver enzymes; hair loss; severe liver injury; pancreatitis; bone marrow failure
Tiotropium (alt. ipratropium)	COPD; asthma	Inhaled Long-acting anti-muscarinic	Binds to the muscarinic receptor, where it acts as a competitive inhibitor of acetylcholine; this increases HR and conduction, reduces muscle tone and reduces secretions from glands	Angle-closure glaucoma; arrhythmias; urinary retention	Respiratory tract irritation; GI disturbance including dry mouth and constipation
Vancomycin	Gram+ve infection (e.g. endocarditis); antibiotic-associated colitis	Oral Narrow spectrum Gram+ve antibiotic	Inhibits growth and cross-linking of peptidoglycan chains, inhibiting synthesis of the cell wall of Gram+ve bacteria; thus lysing and killing the bacteria	Renal impairment; elderly	Thrombophlebitis; 'red-man syndrome'; immediate of delayed hypersensitivity; nephrotoxicity; ototoxicity; neutropenia; thrombocytopenia
Warfarin	VTE (DVT/PE); AF	Oral Vitamin K-antagonist	Inhibits hepatic production of vitamin K-dependent coagulation factors (II, VII, IX and X, and protein C and S), by inhibiting vitamin K epoxide reductase	Immediate risk of haemorrhage; pregnancy; hepatic disease	Haemorrhage