

| Body System | Drug Class | Prototype Drug (Generic) | Something to Know |
|----------------------------|-----------------------------------|---|---|
| Cardiac | Ace | Lisinopril | cough |
| | Beta Blocker | Metoprolol | blocks beta receptors, hence blocks sympathetic response to low blood sugar, use cautiously with diabetics |
| | Calcium Channel Blocker | Nifedipine (Procardia) | strongest CCB |
| | | Amlodipine (Norvasc) | pedal edema |
| | Diuretic | Furosemide | low blood pressure, lowers potassium |
| | Cardiac Glycoside | Digoxin | hypokalemia potentiates dig toxicity |
| | Angiotensin Blocker | Losartan (Cozaar) | helps with ventricular remodeling |
| | Statin | Atorvastatin | liver function tests and no grapefruit juice |
| | Anticoagulant | Heparin | ptt q 6 hours, check foley for blood; prevents new clot from forming, does not bust existing clots |
| | | Coumadin | pt/INR, GUAIAC, Increase INR: NSAIDs, ASA, many antibiotics; Decrease INR: alcohol barbituates, rifampin, avocados |
| Low molecular weight | Enoxaparin | daily or BID, often in ortho cases | |
| Cardiac and Stroke | Tissue Plasminogen Activator | TPA | clot buster, systemic and CTL (tape off ports) Absolute and Relative contraindications systemic use. Absolute: ICH on CT, SAH, previous stroke in 3 mo, HTN > 185, AVM, Aneurysm, Active internal bleeding, Platelets <100,000; Relative: major surgery in past 14 days, recent LP, pregnancy |
| Pulmonary | Xanthine derivative | Theophylline | leveled drug 10-20 mcg/ml, xanthines are chocolate & coffee, which can increase effects |
| | Phosphodiesterase (PDE) inhibitor | Sildenafil | used in COPD and Pulmonary hypertension by increasing BP in lungs |
| | Corticosteroid inhalers | Fluticasone/salmeterol | rinse, can cause thrush, comes in 500/50, 250/50 and 100 mcg/50 mcg |
| | Non-Corticosteroid bronchodilator | Albuterol & Atrovent | Albuterol (rescue) and atrovent (longer acting), must open airway first |
| | Xanthine Bronchodilator | Aminophylline | leveled drug 10 - 20 mcg/ml, short-acting drug of theophylline, can lead to arrhythmia |
| Immunologic / Inflammation | Corticosteroid | Prednisone PO/Prednisolone IV | reduces potassium, thin skin, high glucose, Cushing's Syndrome, taper drug unless used for short-time (sinus) |
| | NSAID | Ibuprofen PO/Ketorolac IV | renal changes, bleeding, IV ketorolac often limited to 6 doses |
| Cancer | Antimetabolites | Imuran | mouth ulcers, immunosuppressant |
| Cancer | Oncology | Vincristine | Pancytopenia, nadir (low point) 7-10 days, recovery 21 days |
| | | Adriamycin | Cardiac-toxic |
| | | Bleomycin | Pulmonary-toxic |
| Thyroid | Hyperthyroidism | Propylthiouracil and Methimazole | hepatic side-effects including need for liver transplant, often given with radioactive iodine |
| | Hypothyroidism | Levothyroxine | bone turnover, muscle aches, increased cholesterol |
| Pain | Narcotics | Morphine, Hydromorphone, Fentanyl, Demerol | gold standard measured against morphine i.e hydromorphone is approx 7.5 X more potent than morphine, demerol produces a metabolite (rarely used) called normeperidine, increase seizures; narcotics decreases respiratory drive, count respirations |
| | | Benzodiazepines | Lorazepam |
| | Reversal Drugs | Narcan & Romazicon | Narcan (for narcotics), Romazicon (benzodiazepines) |
| GI | Nausea | Ondansetron (5-HT3), Compazine (Phenothiazine), Phenergan (Phenothiazine) | Ondansetron shuts off vomiting center in medulla oblongata; the phenothiazines have synergistic effects with narcotics so be careful |
| | Constipation | Colace, Senna, Miralax | Colace - softener, Senna - Stimulant laxative, Miralax - osmotic laxative |
| | Diarrhea | Lomotil | do not give with CDIFF |
| | Proton Pump Inhibitor | Pantoprazole | given before meals for GERD, in hospital used for stress-ulcer prophylaxis, can increase pneumonia |
| | Histamine Antagonist | Cimetidine, Famotidine | interferes with absorption of other medications |

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| Antibiotics | Cephalosporins | Ceftriaxone | cross-reactivity with Penicillins, thrush, candida |
| | Fluoroquinolones | Ciprofloxacin, Levofloxacin | tendon rupture |
| | Penicillin-Based | Amoxicillin, Ampicillin | cross allergy with cephalosporins |
| | Lincosamide | Clindamycin | Black Box: CDIFF |
| | Sulfa | Bactrim SS or DS | potential cross-reactivity to furosemide |
| | Tetracycline | Tetracycline, Doxycycline | Lyme Disease |
| | Aminoglycoside | Gentamycin | leveled drug, 0.5 - 2 mcg/ml; ototoxic |
| | Antifungal | Ketozazole | liver toxicity |
| | Antiviral | Acyclovir | Treats herpes virus infections, including shingles and genital herpes. It can also treat chickenpox. This medication does not cure herpes, but may prevent herpes sores or blisters. |
| Psychiatric Medications | Typical Antipsychotics | Haloperidol, Thorazine | Extra-pyramidal symptoms (EPS) - dystonia, akathisia, pseudoparkinsonism, tardive dyskinesia; neuroleptic malignant syndrome can occur in typical and atypical (hyperthermia, rigid muscles, rhabdo) |
| | Atypical Antipsychotics | Abilify, Risperdal, Clozaril | Abilify - drowsiness, constipation; Risperdal - stroke in elders; Clozaril - agranulocytosis |
| Rescue Medications | | Epinephrine | Code: 1 mg IV q 3-5 minutes, no limit, used in cardiac arrest and anaphylaxis, can cause arrhythmia and hypertension |
| | | Tranexamic Acid | trauma medication to stop bleeding, caution with renal patients and bleeding problems, trauma benefit within first 3 hours; used in cardiac surgery; side-effect arrhythmia, hypertension, pulmonary edema |
| Neurologic | ICP | Mannitol | Cushing's Triad: Hypertension, Bradycardia, irregular breathing; vesicant |
| | Triptan | Sumatriptan | vasoconstriction, chest pain as migraines occur as a vasodilative process |
| | Multiple Sclerosis | Avonex, Betaseron, Copaxone | flu-like symptoms, immunosuppression; avoid live vaccines |
| | Myasthenia Gravis | Pyridostigmine Bromide (Mestinon) | Tensilon test (muscles stronger +), side-effects Mestinon: sweating |
| | Parkinsons | Sinemet, Cogentin, Azilect | Sinemet: cardidopa/levodopa, drug holiday, dopamine; Cogentin: anticholinergic; Azilect: MAOI - no tyramine, can lead to malignant hypertension, treats bradykinesia and stiffness |
| | Seizures | Phenytoin Depakote | leveled drug 1-2 mcg/ml, pH of bleach, run through a running line, gingivitis, protein-bound, hypoalbuminemia = low dilantin level; corrected Used in epilepsy, bipolar and migraines, leveled drug 50-125 mcg/ml; side effects liver toxicity, suicidal ideation, pancreatitis |
| Gout | Xanthine oxidase inhibitor | Allopurinol | decreases uric acid, uric acid is increased during cell death due to cancer or cancer treatments |
| Osteoporosis | Biophosphonate | Alendronate | must be standing up for 30 minutes once per week, does not build bone, prevents additional bone degradation, may cause stomach or esophagus upset |
| Diabetes | Oral Agents | Metformin, Glipizide | Metformin held prior to contrasting CT scan r/t buildup of lactic acid; peaks in 4-8 hours; glipizide peaks in 1-3 hours; |
| | Insulin (onset, peak, duration) | | |
| | Rapid-acting | Humalog/Novolog | Onset: 10-30 minutes, Peak 30 minutes- 3 hours, Duration 3-5 hours |
| | Short | Regular | Onset: 10-30 minutes, Peak 2-5 hours, Duration up to 12 hours |
| | Intermediate | NPH | Onset: 1.5 - 4 hours, Peak 4-12 hours, Duration up to 24 hours |
| | Long | Lantus | Onset: 3 to 4 hours, minimal peak, Duration up to 24 hours |
| GU Medications | Alpha-blocker | Tamulosin | treat BPH, typically given at night due to peak concentration increased when on an empty stomach, floppy iris syndrome |
| | Alpha-adrenergic Blocker | Prazosin | used to treat PTSD, BPH, pheochromocytoma |