NCLEX-RN® Pharmacology — Drug-Class DECODER Cram Sheet

One line per class: what it does → the #1 way the NCLEX asks it → the lab/vital → the antidote or rule. A study aid, not medical advice.

Drug class	What it does (one line)	The #1 thing the NCLEX asks (report / priority)	Lab / vital to check	Antidote / key rule
CARDIOVASCULAR				
Digoxin	↑ force, ↓ rate (HF, A-fib)	N/V, yellow-green halos = toxicity; hold if apical pulse < 60	Dig level 0.8–2 ng/mL; K+ (low K worsens it)	Antidote: digoxin immune Fab (DigiFab)
Nitrates (nitroglycerin)	Vasodilate → ↓ preload, relieve angina	Severe ↓ BP/fainting (headache is expected); call 911 if SL nitro doesn't relieve pain	Blood pressure	Sit/lie down first; never with ED drugs (sildenafil)
Beta-blockers (-olol)	↓ HR, ↓ BP, ↓ O2 demand	Hold if HR < 60 or low BP; masks hypoglycemia; don't stop abruptly	HR & BP; glucose in diabetics	Taper off; avoid nonselective in asthma
ACE inhibitors (-pril)	↓ angiotensin II → ↓ BP	Angioedema (face/tongue = airway emergency), dry cough, ↑ K+	K+ & renal function; BP	Stop for angioedema; no pregnancy
ARBs (-sartan)	Block angiotensin II receptor → ↓ BP (no cough)	↑ K+; angioedema (less common than ACE)	K+ & BP	Used when ACE cough intolerable; no pregnancy
Calcium channel blockers	Relax vessels/heart → ↓ BP, ↓ rate	-dipine: ankle edema; verapamil/diltiazem: bradycardia, constipation	HR (verapamil/diltiazem); BP	Avoid grapefruit juice
Loop diuretics (furosemide)	Potent diuresis (loop of Henle)	HYPOkalemia (cramps, weakness, irregular pulse); ototoxic if pushed fast	K+ (low), Na+, daily weight	Give IV slowly; potassium-rich foods
Thiazides (HCTZ)	Distal-tubule diuresis; first-line HTN	HYPOkalemia, hyperglycemia, hyperuricemia; photosensitivity	K+ (low), glucose	Morning dose; sunscreen; sulfa caution
K-sparing (spironolactone)	Block aldosterone → keep K+	HYPERkalemia (the danger); gynecomastia	K+ (high)	Avoid K+ supplements/salt substitutes
Amiodarone	Antidysrhythmic (prolongs repolarization)	New cough/dyspnea (pulmonary toxicity); bradycardia	ECG (QT), thyroid, liver, PFTs	Sun protection; long half-life
Statins (-statin)	↓ liver cholesterol → ↓ LDL	Muscle pain/weakness + dark urine = rhabdomyolysis	LFTs; CK if muscle pain	Evening dose (most); avoid grapefruit; no pregnancy
BLOOD — ANTICOAGULANTS, ANTIPLATELETS, THROMBOLYTICS				
Heparin (UFH / LMWH)	Activates antithrombin → prevents clots (fast)	Bleeding; falling platelets = HIT	aPTT (UFH ~ 46–70 s); platelet count	Antidote: protamine sulfate
Warfarin	Blocks vitamin-K clotting factors (slow, oral)	Bleeding; INR above range	INR 2–3 (2.5–3.5 mech. valve)	Antidote: vitamin K; steady vit-K diet; no pregnancy
DOACs (-xaban; dabigatran)	Block factor Xa or thrombin directly	Bleeding; do not stop abruptly (thrombosis risk, BBW)	No routine level; H/H, renal	Antidotes: idarucizumab (dabigatran); 4F-PCC for -xaban bleed (andexanet withdrawn US 2025)
Antiplatelets (aspirin, clopidogrel)	Stop platelets from clumping	GI bleed; tinnitus (ASA toxicity); no ASA for a febrile child (Reye's)	H/H, platelets	Take aspirin with food
Thrombolytics (-ase; alteplase)	Dissolve a clot that already formed (time-critical)	Any bleeding — esp. sudden severe headache/neuro change (brain bleed)	Coag studies, neuro checks, BP	Strict time window + exclusion criteria; minimize needle sticks
ENDOCRINE				
Insulin	Moves glucose (and K+) into cells	Hypoglycemia — worst at the PEAK; treat by Rule of 15	Blood glucose	Clear before cloudy; high-alert drug
Metformin	↓ liver glucose, ↑ insulin sensitivity (first-line T2)	Lactic-acidosis signs; HOLD around IV contrast dye	Renal function, glucose, A1c	With food; no hypoglycemia on its own
Sulfonylureas (glipizide, glyburide)	Stimulate the pancreas to release insulin	Hypoglycemia; alcohol (disulfiram-like) reaction	Blood glucose	Can cause lows (unlike metformin)
SGLT2 inhibitors (-flozin)	Excrete glucose in the urine	Genital/urinary yeast & UTIs; euglycemic DKA	Glucose, renal	Hydrate; perineal hygiene
Levothyroxine	Replaces T4 (hypothyroidism)	Over-replacement = tachycardia, chest pain, insomnia	TSH; heart rate	Empty stomach AM, lifelong, don't switch brands
Antithyroid (methimazole, PTU)	Block thyroid-hormone synthesis (hyperthyroid)	Sore throat/fever = agranulocytosis	CBC / WBC	Report infection signs immediately
Corticosteroids (-sone)	Anti-inflammatory / immunosuppressant	Masked infection, hyperglycemia, GI bleed; NEVER stop abruptly (adrenal crisis)	Glucose, K+ (low), BP, weight	Taper; with food; stress dosing
RESPIRATORY				
SABA rescue (albuterol)	Beta-2 → bronchodilation (fast)	Tachycardia/tremor; using > 2×/week = poor control	HR, breath sounds, peak flow	Rescue, not maintenance; LABA never used alone in asthma
Inhaled anticholinergic (ipratropium, tiotropium)	Block ACh → bronchodilate (COPD)	Dry mouth; caution in glaucoma/BPH	Respiratory status	Tiotropium is daily maintenance, not a rescue inhaler

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Inhaled corticosteroid (fluticasone)	↓ airway inflammation (controller)	Oral thrush / hoarseness	Respiratory status	Rinse & spit after use; use a spacer; daily (not rescue)
ANTI-INFECTIVES				
Aminoglycosides (gentamicin)	Inhibit protein synthesis (serious gram-neg)	Tinnitus/hearing loss (ototoxic); ↓ urine (nephrotoxic)	BUN/creatinine; peak & trough	Monitor drug levels
Vancomycin	Cell-wall inhibitor (MRSA)	Flushing of face/neck if infused too fast ('red man'); tinnitus	Trough level; renal function	Infuse over ≥ 60 min
Fluoroquinolones (-floxacin)	Inhibit bacterial DNA replication	Tendon pain/rupture (Achilles); QT; photosensitivity	ECG if at risk; renal	Separate from antacids/dairy/iron
Sulfonamides (TMP-SMX / Bactrim)	Block folic-acid synthesis (UTIs)	Rash = Stevens-Johnson (stop drug); crystalluria	Renal, K+, CBC	Push fluids; sun protection; sulfa allergy
NEUROLOGIC & PSYCHIATRIC				
Phenytoin	Anticonvulsant (stabilizes Na channels)	Rash (SJS); nystagmus/ataxia = toxicity; gum overgrowth	Level 10–20 mcg/mL	IV slow, saline only; never stop abruptly
Benzodiazepines (-pam/-lam)	↑ GABA → CNS depression	Sedation, slow breathing (deadly with opioids/alcohol)	Respiratory rate, LOC	Antidote: flumazenil; taper
Opioids (morphine)	Bind mu receptors → analgesia	RR < 12, heavy sedation (the priority); constipation	Respiratory rate, sedation, SpO2	Antidote: naloxone (short-acting → watch re-sedation)
SSRIs (sertraline, fluoxetine)	↑ serotonin (takes 2–6 weeks)	↑ suicidality early; serotonin syndrome (fever, tremor, agitation)	Mood/suicide check; BP (SNRIs)	Don't stop abruptly
MAOIs (phenelzine)	↑ monoamines	Severe headache = hypertensive crisis (tyramine foods)	Blood pressure	Avoid aged cheese, cured meat, red wine
Lithium	Mood stabilizer (bipolar); narrow window	N/V/diarrhea, coarse tremor, confusion = toxicity; dehydration is the enemy	Level 0.6–1.2 mEq/L; Na+, renal, thyroid	Steady salt & fluids; avoid NSAIDs
Antipsychotics (haloperidol, clozapine)	Block dopamine (D2)	Fever + rigidity = NMS (STOP drug); tardive dyskinesia; clozapine → sore throat/fever (agranulocytosis)	Temp (NMS); ANC (clozapine); glucose/lipids (atypicals)	NMS is a medical emergency
GASTROINTESTINAL & PAIN				
PPIs (-prazole; omeprazole)	Block the stomach's acid pump	Long-term: low B12/Mg, C. difficile, fractures	Mg, B12 (long-term use)	Take 30–60 min before the first meal
Acetaminophen	Analgesic/antipyretic (NOT anti-inflammatory)	Exceeding the dose → hepatotoxicity	Liver function (LFTs)	Max ~ 4 g/day (3 g if liver/alcohol); antidote: acetylcysteine
NSAIDs (ibuprofen, ketorolac)	Inhibit COX → ↓ prostaglandins	Black/tarry stools (GI bleed); ↓ urine (renal); edema	Renal function, H/H	Take with food; ketorolac ≤ 5 days

Reference ranges vary by lab; values are the common NCLEX teaching ranges. This sheet is deliberately simplified to the high-yield, test-relevant facts and is not a clinical drug reference. Confirm every drug, dose, and route against your facility policy and a current licensed reference. NCLEX®/NCLEX-RN® are registered trademarks of NCSBN, which does not endorse this material.