Drug-name stems

Common stems by body system, stems that mislead, and what the class tells you to check

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1 AT A GLANCE

NCLEX items use generic names on most occasions, and there's no list of drugs to memorize. A stem points to the class, and the class tells you the actions, risks and checks. **Stems are clues: always verify the drug, its class and its route.**

Heart and blood

Stem	Class	Example
★ **-pril**	ACE inhibitor	lisinopril, enalapril
-sartan	Angiotensin receptor blocker (ARB): works like a pril, with less cough	losartan
★ **-olol**	Beta blocker	atenolol, metoprolol
-alol	Alpha and beta blocker	labetalol
-dipine	Calcium channel blocker, nifedipine type	amlodipine
-statin	Lowers cholesterol	atorvastatin
-parin	Heparins	enoxaparin
-xaban	Blocks factor Xa	rivaroxaban, apixaban
-semide	Loop diuretic	torsemide
-thiazide	Thiazide diuretic	hydrochlorothiazide
-azosin	Alpha blocker	doxazosin

Other body systems

Stem	Class	Example
-prazole	Usually reduces stomach acid (PPI)	omeprazole
-tidine	H2 blocker	famotidine
-setron	Prevents nausea	ondansetron
-terol	Opens the airways	albuterol
-azepam	Benzodiazepine	lorazepam
-oxetine	Antidepressant	fluoxetine
gli-	Older diabetes pills	glipizide
-gliptin, -gliflozin	Newer diabetes pill classes	
★ **-glutide**	GLP-1 receptor agonist. **Not just an injection**: semaglutide also comes as an oral tablet	liraglutide, semaglutide
pred-	Steroid	prednisone
-triptan	Treats migraine	
-caine	Local anesthetic	lidocaine

Anti-infectives and biologics

Stem	Class	Example
-cillin	Penicillin	amoxicillin
cef-	Cephalosporin	cefazolin
-oxacin	Quinolone antibiotic	ciprofloxacin
-conazole	Antifungal	fluconazole
vir	Antiviral; can sit anywhere in the name	acyclovir
★ **-mab**	Monoclonal antibody, for many existing ones. Since 2021, new names use additional stems	adalimumab
-tinib	Kinase inhibitor, many used for cancer	imatinib

Where stems sit: Most stems end the name, but some come first, like cef in cefazolin, or sit inside, like cort in hydrocortisone.

Stems that mislead

- ★ **Not every azole is alike**: prazole usually reduces acid, conazole treats fungi, metronidazole treats protozoa, and letrozole treats breast cancer.
- Aripiprazole ends in prazole, but it isn't an acid suppressor.
- Mycin only says the antibiotic came from a type of bacteria, not which class it belongs to.
- Nystatin sounds like a statin, but it's an antifungal.
- Labetalol ends in alol, not olol, because it blocks alpha and beta receptors.
- **No stem at all**: digoxin, warfarin and lithium. Learn them one by one.
- Not every newer antibody ends in mab.

The class tells you what to check

Stem	Check
★ **-pril**	Dry cough, high potassium, and **dangerous facial swelling**: angioedema can close the airway
★ **-olol**	**Apical pulse and blood pressure** before you give it. It can hide the signs of low blood sugar
-statin	Report unexplained muscle pain
-parin	Watch for bleeding and falling platelets
-azepam	Sedation and slow breathing
-oxacin	Tendon pain or rupture
-cillin, cef-	Ask about allergies first. Some penicillin-allergic clients react to certain cephalosporins, depending on the reaction

Educational use only. Not a substitute for clinical judgment, your facility's policy or the provider's orders. Where practice varies, follow facility policy and state law. No patient information.

Drug-name stems

1 AT A GLANCE, CONTINUED

Why stems help

- U.S. generic names are set by the USAN Council, which reuses a stem for related drugs: one class, one family ending, like lisinopril and enalapril.
- Know the stem, and an unfamiliar name tells you the class. But the list isn't complete, and it changes.

Read an unfamiliar name

Drug	Stem and class	What it tells you
★ **Ramipril**	pril: ACE inhibitor	Facial swelling is its most dangerous effect: report lip and tongue swelling at once
★ **Bisoprolol**	olol: beta blocker	Check the apical pulse and blood pressure first
Valsartan	sartan: angiotensin receptor blocker	Works like a pril, with less cough
Levofloxacin	oxacin: quinolone	Tendinitis and tendon rupture: stop and report tendon pain
Simvastatin	statin: lowers cholesterol	Report unexplained muscle pain, weakness or tea-colored urine
Fluconazole	conazole: antifungal	Not an acid reducer, despite the azole ending
Nystatin	A look-alike, not a stem: it sounds like a statin	An antifungal, not a cholesterol drug

2 PRIORITY AND SAFETY CALLS

★ A client on a new pril with swelling of the lips and tongue: **report it at once**. Angioedema can close the airway.

★ An unfamiliar name: the stem is a clue, **not a substitute for verifying the drug, its class and its route**.

Before an olol: the apical pulse and blood pressure. It can also hide the signs of low blood sugar.

On a parin: watch for bleeding and falling platelets. On an azepam: sedation and slow breathing.

Before a cillin or a cef: ask about allergies.

3 EXAM ANCHORS

1. Expect a drug you've never seen, whose ending tells you the class and the priority check.
2. Traps: reading every azole as an acid reducer, treating mycin as one class, and assuming every drug has a stem.
3. Pril, sartan, olol, dipine, statin and parin cover much of the heart and blood.
4. Valsartan ends in sartan: an angiotensin receptor blocker.
5. Fluconazole doesn't signal an acid reducer: conazole marks antifungals.
6. Then let the class tell you what to check.

4 SELF-QUIZ

1. Names ending in _____ are ACE inhibitors, like lisinopril.
2. Metoprolol ends in olol, so it's a _____.
3. Before an olol, check the _____ pulse and blood pressure.
4. Nystatin isn't a statin: it's an _____.
5. Mycin tells you the antibiotic came from a type of bacteria, not its _____.
6. Semaglutide is a GLP-1 receptor agonist that also comes as an oral _____.
7. Since _____, new antibody names use additional stems.
8. Digoxin, warfarin and _____ have no stem.

ANSWER KEY 1. pril · 2. beta blocker · 3. apical · 4. antifungal · 5. class · 6. tablet · 7. 2021 · 8. lithium

5 SOURCES

1. AMA, United States Adopted Names approved stems. ama-assn.org/about/united-states-adopted-names-u…
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5. DailyMed, semaglutide tablets (oral) label. dailymed.nlm.nih.gov/dailymed/fda/fdaDrugXsl.cfm
6. DailyMed, Lisinopril tablets label (boxed warning). dailymed.nlm.nih.gov/dailymed/drugInfo.cfm
7. DailyMed, Levofloxacin Tablets label. dailymed.nlm.nih.gov/dailymed/drugInfo.cfm

Built from RN PocketPal course lessons: Reading generic names: drug-class stems (c05-l20). Every line on this sheet comes from those lesson scripts.

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