Lab Values Cheat Sheet

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Ranges vary by lab; if your program's table differs, use its values on its exams. Small numbers mark the sources below.

Electrolytes

Sodium[1]	all ages	**136-145** mEq/L
Potassium[2]	all ages	**3.5-5.1** mEq/L
Chloride[3]	all ages	**98-107** mEq/L
Calcium[4]	all ages	**8.8-10.2** mg/dL
Magnesium[5]	all ages	**1.6-2.6** mg/dL
Phosphate[13]	teaching table, population not stated	**0.8-1.5** mmol/L

Potassium and digoxin: ACE inhibitors can raise potassium, while loop diuretics like furosemide lower it.[14,18] Low potassium increases digoxin's effect and can cause toxicity, and Open RN says to report a result under 3.5 mEq/L to the provider right away.[18]

Proteins, liver and osmolality

Albumin[9]	all ages	**3.9-5.2** g/dL
Total bilirubin[10]	age 1 month and older	**0.0-1.1** mg/dL
Serum osmolality[14]	population not stated	**275-295** mmol/kg

Coagulation and anticoagulant targets

PT (prothrombin time)[13]	teaching table, population not stated	**11-14** seconds
INR[13]	teaching table, population not stated	**0.9-1.2**
INR target on warfarin[16]	DVT, PE or non-valvular atrial fibrillation	**2.0-3.0**
INR target on warfarin[16]	mechanical mitral valve (tilting disk or bileaflet), or caged ball or caged disk valve	**2.5-3.5**
aPTT[13]	teaching table, population not stated	**20-40** seconds
aPTT target on heparin[17]	full-dose heparin	**1.5-2** times normal

Match the drug to the lab: warfarin is monitored with PT/INR, and heparin with aPTT.[16,17]

Kidney and glucose

BUN (urea nitrogen)[6]	all ages	**6-20** mg/dL
Creatinine[7]	female	**0.50-1.00** mg/dL
Creatinine[7]	male	**0.70-1.20** mg/dL
Glucose[8]	all ages; a fasting 126 or higher is diabetes	**62-125** mg/dL
Hemoglobin A1C[11]	all ages	**4.0-5.6** %
Hemoglobin A1C, prediabetes[11]	diagnostic cutoff, not a normal range	**5.7-6.4** %
Hemoglobin A1C, diabetes[11]	diagnostic cutoff, not a normal range	**6.5 or higher** %

Complete blood count

White blood cells[15]	adults	**4,500-10,000** cells/mcL
Hemoglobin[15]	adult women	**12-15** g/dL
Hemoglobin[15]	adult men	**14-17** g/dL
Hematocrit[15]	adult women	**36-44** %
Hematocrit[15]	adult men	**41-50** %
Platelets[15]	adults	**140,000-450,000** cells/mcL

On heparin: a platelet count below 100,000/mm^3 means stopping heparin and evaluating for HIT.[17]

Arterial blood gas

pH, arterial[13]	teaching table, population not stated	**7.35-7.45**
$PaCO_2$[13]	teaching table, population not stated	**35-45** mm Hg
HCO_3 (bicarbonate)[12]	age 1 month and older	**22-26** mEq/L
PaO_2[13]	teaching table, population not stated	**80-100** mm Hg
SaO_2[14]	adults	**95-100** %

Read pH first: below 7.35 is acidosis and above 7.45 is alkalosis.[13,14] **ROME:** if $PaCO_2$ moved opposite to pH, the lungs are the cause (respiratory). If HCO_3 moved the same way as pH, the cause is metabolic.[14]

Sources, opened October 18, 2026; links to all of them are at magstonern.com/free-cheat-sheet. UW Medicine Laboratory Test Guide. Not openly licensed; reference values cited as facts, no text reused. **1** Sodium, default method (reference interval effective September 14, 2026). **2** Potassium, default method (reference interval effective September 14, 2026). **3** Chloride, default method (reference interval effective September 14, 2026). **4** Calcium, default method (reference interval effective September 14, 2026). **5** Magnesium, default method (reference interval effective September 14, 2026). **6** Urea nitrogen, default method (reference interval effective September 14, 2026). **7** Creatinine, default method (reference interval effective September 14, 2026). **8** Glucose, default method (reference interval effective September 14, 2026). **9** Albumin, default method (reference interval effective September 14, 2026). **10** Total bilirubin (Roche) (reference interval effective September 2, 2026). **11** Hemoglobin A1C by HPLC (reference interval effective October 1, 2024). **12** Bicarbonate, whole blood (reference interval effective August 2, 2011). Open RN, Chippewa Valley Technical College (2024). CC BY 4.0. **13** Health Alterations, Appendix A: Normal Reference Ranges. **14** Nursing Fundamentals, 2nd edition, Chapter 15: Fluids and Electrolytes. National Heart, Lung, and Blood Institute, NIH. Public domain (U.S. government work). **15** Blood Tests (last updated March 24, 2022). U.S. drug label published on DailyMed; facts cited, no text reused. All on DailyMed (National Library of Medicine). **16** Jantoven (warfarin sodium) tablets, prescribing information (DailyMed version 13, July 8, 2025). Upsher-Smith Laboratories. **17** Heparin sodium injection, prescribing information (DailyMed version 8, August 15, 2025). Fresenius Kabi USA. Open RN, Chippewa Valley Technical College (2023). CC BY 4.0. **18** Nursing Pharmacology, 2nd edition, Chapter 6: Cardiovascular & Renal Systems.

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Pharm Cheat Sheet

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No doses here. Hold parameters are often written into the order; follow it, the label and facility protocol. Lab targets: page 1.

Six drugs: what to check before giving and what to report

DRUG	CHECK BEFORE GIVING	CUES TO REPORT
Digoxin[18,19] Cardiac glycoside	Apical pulse for a full minute; Open RN teaches withholding the dose and notifying the prescriber if it is under 60/min. Potassium, digoxin level and kidney function as ordered.	Nausea, vomiting, loss of appetite; blurred vision, halos, or colors that look yellow or green; new bradycardia or another rhythm change. Low potassium raises the risk of toxicity.
Furosemide (Lasix)[18,20,21] Loop diuretic	Blood pressure, potassium and other electrolytes, BUN and creatinine, intake and output, daily weight.	Dehydration, hypotension, hypokalemia. Ringing in the ears or hearing loss, more likely with rapid IV injection or aminoglycoside antibiotics; the loss can be permanent.
Lisinopril[18,22] ACE inhibitor	Blood pressure after starting; potassium and kidney function periodically, since it can cause hyperkalemia; ask about pregnancy.	Swelling of the face, lips, tongue or throat (angioedema) can block the airway: an emergency. A persistent cough. Boxed warning: stop it as soon as pregnancy is detected.
Metoprolol[18,23] Beta-1 selective beta blocker	Apical pulse and blood pressure; Open RN's common hold parameter is a heart rate under 60/min, unless the order sets other parameters.	Bradycardia, hypotension, weight gain or more shortness of breath (worsening heart failure). Not stopped suddenly: abrupt stops have been followed by worse angina and, in some cases, heart attacks. It can hide the fast heart rate of low blood sugar.
Warfarin[18,24] Anticoagulant (vitamin K antagonist)	INR results and signs of bleeding or bruising before each dose.	Bleeding gums, nosebleeds, red or black stools, pink or brown urine, vomit that looks like coffee grounds, any fall or injury, especially to the head. Teach a steady vitamin K intake.
Heparin[17,18] Anticoagulant	aPTT for full-dose IV heparin; platelet count before therapy and periodically during it; signs of bleeding.	Platelets below 100,000/mm^3 or a new clot: heparin is stopped and HIT is evaluated. New bleeding, or a falling blood pressure with a rising heart rate (possible internal bleeding).

Drug class suffixes

-lol Beta blockers, such as metoprolol. Every beta blocker NIDDK LiverTox names, from acebutolol to timolol, ends in -lol.[27]

-pril ACE inhibitors, such as lisinopril. All 10 ACE inhibitors on NIDDK LiverTox's list of those approved in the U.S., from benazepril to trandolapril, end in -pril.[26]

ARBs such as losartan act on the same hormone system but are not likely to cause the ACE inhibitor cough.[18]

On the ISMP high-alert list (acute care, 2024)

- Anticoagulants, including warfarin and heparin[25]
- IV digoxin[25]
- IV metoprolol, as an IV adrenergic antagonist[25]

Antidotes and reversal agents

Heparin	Protamine sulfate[17]
Warfarin	Vitamin K (vitamin K1 on the label); concentrates or plasma may be considered if urgent[18,24]
Digoxin	Digoxin immune fab (DigiFab), for life-threatening toxicity[18,19]

Heparin vs warfarin[17,18,24]

	HEPARIN	WARFARIN
Route	IV or deep subcutaneous; not IM	Oral tablet
Onset	Immediate after an IV dose	Full effect takes several days
Lab	aPTT	PT/INR

Heparin covers the patient until the INR reaches the target. Neither drug dissolves a clot that has already formed.[17,24]

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Sources, opened October 18, 2026. Open RN, Chippewa Valley Technical College (2023). CC BY 4.0. **18** Nursing Pharmacology, 2nd edition, Chapter 6: Cardiovascular & Renal Systems. U.S. drug label published on DailyMed; facts cited, no text reused. All on DailyMed (National Library of Medicine). **17** Heparin sodium injection, prescribing information (DailyMed version 8, August 15, 2025). Fresenius Kabi USA. **19** LANOXIN (digoxin) injection, prescribing information (DailyMed version 10, October 17, 2025). Covis Pharma US. **20** Furosemide tablets, prescribing information (DailyMed version 1, January 7, 2021). NuCare Pharmaceuticals. **21** Furosemide injection, prescribing information (DailyMed version 1, June 26, 2025). Sagent Pharmaceuticals. **22** ZESTRIL (lisinopril) tablets, prescribing information (DailyMed version 2, January 2, 2025). Upsher-Smith Laboratories. **23** TOPROL-XL (metoprolol succinate) extended-release tablets, prescribing information (DailyMed version 7, March 3, 2026). Melinta Therapeutics. **24** Warfarin sodium tablets, prescribing information and Medication Guide (DailyMed version 1, August 10, 2026). RemedyRepack. Institute for Safe Medication Practices. Copyright ISMP; list cited as facts, no text reused. **25** ISMP List of High-Alert Medications in Acute Care Settings (2024). National Institute of Diabetes and Digestive and Kidney Diseases, NIH (NCBI Bookshelf). Public domain (U.S. government work). **26** LiverTox: Angiotensin-Converting Enzyme Inhibitors (updated February 11, 2018). **27** LiverTox: Beta Adrenergic Blocking Agents (updated June 3, 2018).