MED/SURG CHEAT SHEET

Basic Metabolic Panel (BMP)

Na 135-145	Cl 95-105	BUN 7-22	Glu 70-110
K 3.5-5.0	CO2 22-28	Cr 0.7-1.4	

Renal Diagram

Ca 8-10	Mg 1.3-2.1
Phos 2.5-4.5	

CBC

WBC 5K-10K	Hgb 12-18	Plt 200K-450K
	Hct 35-45	

Liver Panel

Alb 3.4-5.0		
AST 10-40		ALT 10-50
	Aphos 40-140	

Coagulation

PT 9-11 secs	INR 0.9-1.8 (2-3 if on Warfarin)
PTT 25-35	

1.5-2.5x normal if on Heparin

Electrolytes/Lab	Normal Value	S/S of Abnormality
Sodium	135-145	↑Δ LOC, fatigue, lethargy ↓ stupor/coma, anorexia, lethargy
Potassium	3.5-5	↑ n/v, muscle cramps, arrhythmias, peaked T waves, wide QRS complex ↓ n/v, muscle weakness, dysrhythmias
Magnesium	1.3-2.1	↑ ↓Deep tendon reflex, RR & HR arrythmias, muscle paralysis ↓ Tetany, dysrhythmias, Torsade's,
Calcium	8-10	↑ Fatigue, cardiac dysrhythmias, hyperparathyroidism (most common cause) ↓ Tetany, ECG changes
Phosphorous	2.5-4.5	↑ Effects of ↓Ca ↓ Effects of ↑Ca (Phosphorous & calcium are inversely proportional)
Ammonia	0-55	↑ Encephalopathy

Normal Vital Signs

BP	<120 mmHg Systolic
	<80 mmHg Diastolic
HR	60-100
RR	12-20
O2	90%-100%
	88%-92% for COPD
Temp	97.8 F-99 F

Heart Rhythm Measurements

PR Interval	0.12-0.2 secs
QRS Complex	0.06-0.12 secs
QT Interval	≤ 0.4 secs

Blood Sugars

Hot & dry —> Sugar high

Cold & clammy —> needs candy

15/15 Rule: consume 15g of simple carb (fruit juice or soft drink)

Recheck blood sugar every 15 min after treatment (1hr)

Insulins — Name	Onset	Peak	Duration
Rapid acting Insulin:			
Lispro (Humalog) Aspart (Novolog)	10-30 min	30 min-1 hr	3-5 hrs
Short acting Insulin:			
Regular (Humulin R, Novulin R)	30-60 min	2-5 hrs	5-8 hrs
Intermediate acting Insulin:			
NPH	1-2 hrs	6-12 hrs	12-18 hrs
Long acting Insulin:			
Glargine (Lantus) Detemir	1-4 hrs	None	24 hrs

Gllaarrgiine make it sound long when you say to to remember it's "long acting"

O2 Delivery Devices

Low flow Nasal Cannula:	1-6 LPM	First line when appropriate. Low-flow device (smallest flow rate). May cause drying of the nares
High Flow Nasal Cannula:	Up to 60 LPM	Cranked up to high flow rates. Can heat gas to 37 C w/ 100% humidity (can be a little intense)
Simple Mask:	5-10 LPM	Low-flow rate. Used for stable patients with consistent respiratory rate, provides 40-60% O2
Nonerebreather Mask:	10-15 LPM	Delivers 60-100% O2. One way flaps prevent room air form collecting within the mask during inspiration, & retention of CO2 during exhalation

Provides PEEP: positive end expiratory pressure

May add humidity

used for emergencies

Gold standard for COPD pt

Staging Pressure Ulcers

Stage 1	— Non-blanch-able with reddened area — Intact Skin
Stage 2	— Partial thickness skin loss involving epidermis, dermis, or both — May look like as a blister or abrasion
Stage 3	— Full thickness skin loss — Involves damage to or necrosis of sub-q tissue (fat layer may be visible)
Stage 4	— Full thickness skin loss — Including bone, tendon, or muscle showing
Unstageable	— Full thickness with slough (scabbing) or escher (necrotic tissue)

Fluid & Electrolytes:

Monitor patients with severe diarrhea &/or vomiting for electrolyte imbalances

Intravascular: fluid inside the blood vessel

Intracellular: fluid inside the cell (most of the body's fluids)

Extracellular: fluid outside the cell (interstitial fluid [fluid between the cell], blood, bone, connective tissue, water)

Isotonic	0.9% NS, D5W, Lactated Ringers (LR)	No osmotic force = water doesn't move in or out of cell
Hypotonic	0.45% NS, 0.33% NS	More dilute solutions (more water than solute) = water moves into cells—> monitor for edema
Hypertonic	3% NS, 5% NS, D10W, D5W with 1/2 NS D5LR	More concentrated solution (more solute than water) = water moves out of cells
Colloid	Dextran, Albumin	Fluid moves from interstitial to intravascular compartment —> given for severe hypovolemia