

NCLEX Cram Sheet

Powered by  SimpleNursing

Lab Values

Basic Metabolic Panel (BMP) Panel & Electrolytes

Sodium (Na+): normal range = 135-145 mEq
LOW Sodium - Low & Slow
HIGH sodium = Big & Bloated

Potassium (K+): Normal range = 3.5-5.0 mEq/L,
pumps the heart muscles

Chloride (Cl-): Normal range = 97-107, helps to
maintain acid base balance

Carbon Dioxide (CO2): Helps to maintain acid base
pH balance (too much can put the body in Acidosis).
Normal range = 23-29 (mEq/L)
⊕ Memory trick: Carbon DiACID

Bicarbonate (HCO3): Pushes the body into an
alkalotic state
Normal range = 23-30 mEq/L
⊕ Memory trick: Bicarb Base

BUN & Creatinine: 2 labs for 2 kidneys
BUN normal range = 10-20, over 20 usually means
dehydration.
Creatinine over 1.3 = Bad Kidney (kidney injury)

Glucose: **Normal range** = 70-110
Hyperglycemia (over 120) usually clients with
uncontrolled diabetes,
Hypoglycemia (60 or less) brain will DIE! Very deadly

Calcium (Ca): **normal range** = 9.0-10.5 mEq/L
⊕ Memory trick: Calcium Contracts Muscles

Magnesium (Mg+): **normal range** = 1.3 - 2.1 mEq/L
⊕ Memory trick: Magnesium Mellows Muscles

Complete Blood Count (CBC)

Hemoglobin: **Normal** = 12-18
Risky = 8-11
Heaven or blood transfusion = 0-7

Hematocrit: **Normal** = 36-54%
Elevated Hct = Dehydration
Decreased Hct = Bleeding, Anemia, Malnutrition

Red blood cell count (RBC): 4-6 million
Low = Anemia, Renal Failure
High = Dehydration

White Blood Cells (WBC) & Coagulation Panel

WBC Total Count: **Normal** = 5,000-10,000
Higher = Leukocytosis
Low = "Leukopenia"

CD4 Count: **Normal** = Over 200
Below = AIDS

Platelets: **normal range** = 150k - 400k

PTT: **normal range** = 30-40

INR: **normal range** = 0.9-1.2

Health Assessments

Head to Toe Assessment

Normal Range Vitals:

Vital Sign	Normal Range	Location	Classification
Pulse	60-100bpm	Radial, carotid, brachial, femoral, popliteal, dorsalis pedis, posterior tibialis, temporal pulse.	Absent, weak, normal, increased, bounding.
Respirations (RR)	12-20bpm	Anterior (chest) and posterior (back)	Normal, adventitious, absent, diminished.
BP	120/70-139/89	Brachial, radial, popliteal, posterior tibialis.	Systole: Max contraction of the left ventricle. Diastole: Pressure of resting ventricles.
Temperature	98.6/37°C	Temporal, rectal, oral, tympanic, axillary	Febrile, afebrile

Circulation Capillary Refill Skin Turgor

Head & Neck: Hair, Eyes, Nares, Mouth, Jaw & Neck

Chest: Heart: **All Pigs Eat Too Much**

A - Aortic

P - Pulmonic

E - Erb's Point

T - Tricuspid

M - Mitral

Lungs

Breast

Abdomen: Bowel Sounds, Shape

Pain Assessment

Types of Pain: Chronic: Persistent, malignant pain that lasts more than six months.

Acute: Sudden onset of pain, specific to injury. Lasts from seconds to six months

Effects of Pain: Chronic: Immune suppression, depression, disability, fatigue, anger, inability to perform ADLs

Acute: Increased cardiac output, impaired insulin response, immune suppression, increased cortisol production, increased fluid retention.

Factors that Influence Pain: Past Experience, Anxiety, Depression, Age, Gender, Culture

Patho: Nociceptors, Nociception, Cox 1, Cox 2, Decrease pain sensation

Pharmacologic Treatments: Non opioids: NSAIDS, Acetaminophen, Ofirmev

Opioids: Tramadol, Tylenol 3, Meperidine, Propoxyphene (with tylenol), Oxycodone, Fentanyl, Morphine, Dilaudid

Other: PCA pump, PRN medications, Multi modal (use of one or more drugs), Routine admin (admin around the clock), Topical, Local anesthesia, Intraspinal

Non-pharmacologic Treatments: Cutaneous stimulation (TENS machine), Massage, Thermal therapies (heat and cold), Distraction, Relaxation, Guided imagery, Hypnosis, Music therapy, Alternative therapy (Acupuncture)

Focused Pain Assessment: Scale (0-10), Timing, Location, Duration, Quality, Aggravating and Alleviating factors

Mother Assessment

Admission: Birth imminence, Fetal status, Maternal status, Risk assessment

Assessment Components: Obstetric History, Current Labor Status, Medical–Surgical History, Social History, Desires/Plans for Labor and Birth

GTPAL: Gravida, Term, Preterm, Abortion, Living

Ambulation: Body Mechanics & Mobility

General ease of movement: Normal finding = voluntary, controlled, purposeful, fluid, and coordinated movements

Abnormal finding = involuntary movements, tremors, tics, chorea, dystonia, fasciculations, oral or facial dyskinesias

Gait: Normal finding = head erect with vertebral straight, knees and feet forward, arms at side with elbows flexed, arms wing freely in alternation with leg swings

Abnormal finding = spastic hemiparesis, scissor gait, steppage gait, sensor ataxia, cerebellar ataxia, parkinsonian gait, use of assistive devices

Alignment: Normal finding = when standing or sitting, a line can be drawn from the ear to shoulder and hip.

Abnormal finding = spinal curvatures as seen in scoliosis, inability to maintain normal alignment

Joint structure: Normal finding = absence of joint deformities and full range of motion.

Abnormal finding = limitation of full range of motion, swelling, heat, tenderness, crepitation, deformities

Muscles mass and tone: Normal finding = adequate mass, tone and strength to complete ADLs.

Abnormal finding = atrophy, hypertrophy, flaccidity, spasticity, paralysis.

Endurance: Normal finding = turning in bed, maintaining correct alignment, ambulating, performing self-care activities

Abnormal finding = increased pulse, respirations, BP, SOB, dyspnea, weakness, pallor, confusion, vertigo, pain.

Positioning

Fowler's Position: The head and trunk are raised 30-90 degrees.

For cardiac issues, SOB, or NG tube.

Lateral: Right lateral = The right side of the patient touches the bed.

Left lateral = The left side of the patient touches the bed. For GI issues and rectal surgery.

Lithotomy: Most common in OB; patient lies flat on their back with knees elevated and hips level (often supported by stirrups).

For gynecological procedures and childbirth.

Sim's Position: Prone/lateral; Patient lies on their side with upper leg flexed and drawn towards the chest, and upper arm flexed at the elbow.

For administering enemas, perineal examination, and comfort in pregnancy.

Prone: Patient lies on their stomach with back up, and head turned to one side.

For drainage of the mouth after oral or neck surgery. It allows for full flexion of knee and hip joints.

Supine: On patient's spine; Considered the most natural "at rest" position.

For abdominal, facial, and extremity procedures.

Trendelenburg: "Upside Down"; Patient is in supine position and has their head sharply lowered and raised feet.

For hypotension, gynecological and abdominal hernia surgeries, and placement and removal of central lines.

Reverse Trendelenburg: Patient is in supine position with head of the bed elevated and the foot of the bed down.

For types of surgery to help promote perfusion in obese patients. Also helpful in treating venous air embolism and preventing pulmonary aspiration.



Maternity & Pediatric

Maternal Pharmacology

Pediatric:

Drug	Mode of Action	Indication	Contraindication/ Adverse Effects	Dose/Route
Phytonadione Vit K	Helps prevent bleeding by activating clotting factors.	Prevention and treatment of hypoprothrombinemia.	Pain, swelling, flushing, dizziness, rapid heartbeat, sweating.	IM Subcut, IV (Children 1 mo): 1– 2 mg single dose.
Erythromycin Erythrocin	Suppresses protein synthesis at the level of the 50S bacterial ribosome.	Administered immediately after birth along with Vitamin K shot. Infections caused by susceptible organisms.	Infantile hypertrophic pyloric stenosis, pancreatitis, interstitial nephritis rash. Benzyl alcohol should be avoided in neonates.	Eye drops/cream. IV/ P.O PO (Neonates): Ethylsuccinate—20– 50 mg/kg/day divided q 6– 12 hr. IV (Children 1 mo): 15– 50 mg/kg/day divided q 6 hr, maximum 4 g/day.
HEp B vaccine	Causes a primary immune response.	Provides immunity against HEP B.	Do not give if baby is already +.	5 mcg/0.5 mL ; 5 mcg/mL ; 10 mcg/0.5 mL
HEP B IG BayHep B, Nabi-HB	Confers passive immunity to hepatitis B infection post exposure.	Hepatitis b infection in neonates born to HBsAg+ women, provides passive immunity.	Erythema at IM site, pain, swelling, tenderness. Hypersensitivity to immune globulins, glycine, or thimerosal.	IM: 0.5 mL within 12 hr of birth.

Postpartum:

Drug	Mode of Action	Indications	Contraindications/Side Effects	Dose/Route
Phytonadion	Bind to opiate receptors in the CNS.	Management of moderate to severe pain.	Avoid chronic use. Dizziness, sedation, respiratory depression, hypotension.	ROUTE PO —2.5– 10 mg q 3– 6 hr as needed.
Simethicone Gas-X	Passage of gas through the GI tract by belching or passing flatus.	Relief of painful symptoms of excess gas in the GI tract that may occur postoperatively.	Not recommended for infant colic	ROUTE PO 40– 120 mg qid, after meals and at bedtime (up to 500 mg/day).
Docusate Peri-Colace	Promotes incorporation of water into stool, resulting in softer fecal mass.	Prevention of constipation (in patients who should avoid straining, such as after MI or rectal surgery).	Hypersensitivity; Abdominal pain, nausea, or vomiting.	ROUTE PO 2 tablets once daily at bedtime; maximum 4 tablets twice daily.

Pregnancy

Signs of Pregnancy - Presumptive: subjective data the woman reports to the HCP.

Probable: objective data, such as cervical changes.

Positive: diagnostic confirmation such as, fetal heartbeat & ultrasound

Weight Gain: A pregnant patient should increase their caloric intake by 300 kcal/day during 2nd & 3rd trimesters.

FIRST TRIMESTER: 3-4 lb total

REMAINDER OF PREGNANCY: 1 lb per week.

Total weight gain:
25-35 lb for a patient with a normal BMI.

Nutritional Requirements: *Proteins, Minerals, Iron, Calcium, Phosphorus, Zinc, Iodine*

Vitamin requirements: *Folic acid (Vitamin B9), Vitamin A, Vitamin C, Vitamin B6, Vitamin B12*

Hematologic Changes:

Blood volume increases by 45-50%.

Red blood cell count increases up to 30%.

Plasma increases up to 50%

Hemoglobin decreases

Hematocrit decreases

Cardiac changes: *Blood pressure slightly decreases*

Heart rate increases by 10-15 BPM

Cardiac output increases

Integumentary changes:

Chloasma, Linea nigra, Striae

Musculoskeletal changes:

Lordosis, Diastasis rectus abdominis



Respiratory changes:

*Nasal mucosa edematous due to vasocongestion.
Nasal congestion and voice changes are possible.
Accommodations to maintain lung capacity.
May feel short of breath when eupneic.
Third trimester diaphragm pressure.*

GI changes:

*Intestines are displaced upwards & to the side.
Pressure changes in the esophagus & stomach which leads to heartburn.
Constipation*

Pharmacology

Analgesics:

Opioid; Increases pain threshold by altering pain perception.

Common Brands	Generic Brands
Demerol	Meperidine HCL
Dilaudid	Hydromorphone
Duragesic, Sublimaze	Fentanyl
Morphine Sulfate	Morphine Sulfate
Vicodin, Norco	Hydrocodone

Anticoagulants:

Interferes with blood clotting processes.

Common Brands	Generic Brands
Coumadin	Warfarin
Lovenox	Enoxaparin
Heparin	Heparin Sodium-from beef/pork

Anticonvulsants:

Increases interval between seizures.

Common Brands	Generic Brands
Dilantin	Phenytoin
Neurontin	Gabapentin
Tegretol	Carbamazepine
Depakote	Valproic Acid

Antidepressants:

SRI; Inhibits serotonin reuptake in CNS.

Common Brands	Generic Brands
Celexa	Citalopram
Effexor	Venlafaxine
Lexapro	Escitalopram Oxalate
Paxil	Paroxetine
Prozac	Fluoxetine
Zoloft	Sertraline

Anti-Diabetics:

Sulfonylureas; Promotes insulin secretion by the pancreas; Increases tissue response to insulin.

Common Brands	Generic Brands
Amaryl	Glimepiride
Diabeta, Glynase, Micronase	Glyburide
Glucotrol (XL)	Glipizide

Antiemetics:

Decreases/prevents nausea & vomiting.

Common Brands	Generic Brands
Phenergan	Promethazine
Zofran	Ondansetron

Antihypertensives-(PRIL):

ACE Inhibitors; Blocks the conversion of angiotensin I to angiotensin II (potent vasoconstrictor).

Common Brands	Generic Brands
Altace	Ramipril
Capoten	Captopril
Prinivil, Zestril	Lisinopril
Vasotec	Enalapril

Antilipidemics: Inhibits HMG-CoA reductase, an early step in cholesterol production.

Common Brands	Generic Brands
Crestor	Rosuvastatin
Lipitor	Atorvastatin
Zocor	Simvastatin



Antiplatelets:

Interferes with the 1ST step in the clotting process: platelet aggregation.

Common Brands	Generic Brands
ASA - aspirin	Acetylsalicylic Acid
Plavix	Clopidogrel

Anxiolytics:

Azapirodecanedione derivatives;
Decreases anxiety.

Common Brands	Generic Brands
Buspar	Bupirone Hydrochloride

Arbs-(SARTAN):

Blocks binding of angiotensin II at the receptor site.

Common Brands	Generic Brands
Atacand	Candesartan
Cozaar	Losartan
Diovan	Valsartan

Benzodiazepines (Pam & Lam):

Enhances/facilitates GABA, an inhibitory neurotransmitter

Common Brands	Generic Brands
Xanax	Alprazolam
Valium	Diazepam
Ativan	Lorazepam
Versed	Midazolam

Beta Blockers-(LOL):

Prevents sympathetic heart stimulation, thus
Decreases HR and contractility.

Common Brands	Generic Brands
Inderal	Propranolol
Lopressor	Metoprolol Tartrate
Toprol-XL	Metoprolol Succinate
Tenormin	Atenolol

Biguanides:

Decreases hepatic glucose production
& intestinal absorption of glucose.

Common Brands	Generic Brands
Glucophage	Metformin

Calcium Channel Blockers:

Blocks Na⁺ influx into the beta-receptors.

Common Brands	Generic Brands
Cardizem	Diltiazem
Norvasc	Amlodipine
Procardia	Nifedipine
Verelan, Isoptin, Calan	Verapamil

Cardiac Glycosides:

Positive inotropes (improve contractility
and cardiac output).

Common Brands	Generic Brands
Lanoxin	Digoxin

Corticosteroids:

Inflammation, produces intentional immunosuppression,
and treats adrenocortical insufficiency.

Common Brands	Generic Brands
Celestone	Betamethasone
Decadron	Dexamethasone
Deltasone	Prednisone
Solu-Cortef	Hydrocortisone
Solu-Medrol	Methylprednisolone

Diuretics: Decreases fluid volume in the body.

Common Brands	Generic Brands
Bumex	Bumetanide
Demadex	Torsemide
Lasix	Furosemide

Glitazones: Decreases insulin resistance.

Common Brands	Generic Brands
Actos	Pioglitazone
Avandia	Rosiglitazone

H2-Histamine Receptor Antagonists: Inhibit histamine
at histamine H2-receptor sites, gastric acid secretion.

Common Brands	Generic Brands
Pepcid	Famotidine
Zantac	Ranitidine



Nitrates:

Peripheral and coronary vasodilators.

Common Brands	Generic Brands
Nitro BID, Tridil, Transderm Nitro, Nitrostat	Nitroglycerin
Imdur	Isosorbide Mononitrate
Isorbid, Isordil, Sorbitrate	Isosorbide Dinitrate

Proton Pump Inhibitors (PPI):

Blocks final step of gastric acid production;
Ulcer-reducing.

Common Brands	Generic Brands
Nexium	Esomeprazole
Prilosec	Omeprazole
Protonix	Pantoprazole

Tricyclics:

Blocks reuptake of norepinephrine
and serotonin at nerve endings.

Common Brands	Generic Brands
Elavil	Amitriptyline



SimpleNursing

www.simplenursing.com