Physiological Adaptation: Conditions at a Glance

Cue cluster, first action, key drug, teaching and when to report, by body system, for the NCLEX-RN and NCLEX-PN

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HOW TO READ A CONDITION QUESTION

1. Name the condition from the cue cluster, not from one cue
2. Ask what kills first: airway, breathing, circulation, then neuro change
3. Pick the safe first action within nursing scope (position, stop the trigger, check the device, hold the drug)
4. Report a change from baseline at once; do not wait for the next scheduled check

EXAM TIP The PN exam asks the same conditions from the LPN/VN side: collect the data, take the safe first step, report to the RN.

NEURO AND SPINAL CORD

CONDITION	CUE CLUSTER	FIRST ACTION	REPORT WHEN
Rising ICP	Early: restlessness, confusion, drowsiness, headache, vomiting. Late: Cushing triad (high SBP with wide pulse pressure, slow HR, irregular breathing), fixed pupil	HOB 30°, head midline, avoid straining and hip flexion	Any drop in level of consciousness or new pupil change
Ischemic stroke	Sudden one-sided weakness, speech or vision loss; time last known well	Neuro checks, glucose, swallow screen before anything by mouth	BP above 185/110 before a clot-buster, new headache or bleeding during it
Hemorrhagic stroke or SAH	Worst headache, vomiting, stiff neck	Quiet dark room, seizure and fall precautions, stool softener	New confusion or weakness days 3 to 14 after SAH (vasospasm)
Autonomic dysreflexia (injury at T6 or above)	Pounding headache, very high BP, slow HR, flushing and sweating above the injury	Sit up, legs down, loosen clothing, then check catheter and tubing, then bowel	BP stays high once the trigger is removed
Spinal cord injury, high cervical	Weak cough, falling vital capacity; orthostatic dizziness later	Respiratory checks; binder, stockings, slow position changes	Shallow breathing or a falling vital capacity
Guillain-Barré	Ascending symmetric weakness, lost reflexes, labile BP	Serial vital capacity and swallow checks	Vital capacity falling toward 20 mL/kg, weak cough
Myasthenic vs cholinergic crisis	Both: weakness, trouble swallowing and breathing. Cholinergic: secretions, cramps, diarrhea soon after a dose	Protect the airway; hold the next dose until the provider decides	Any breathing difficulty
Status epilepticus	Seizure lasting 5 min or more, or back-to-back without waking	Side-lying, oxygen, glucose check, benzodiazepine as ordered (IM if no IV)	At 5 min, at once
Basilar skull fracture	Raccoon eyes, Battle sign, clear fluid from nose or ear	Do not pack or suction the nose; no nose blowing	Fever, stiff neck (meningitis)
VP shunt failure or infection	Headache, vomiting, drowsiness; infants: bulging fontanel, fast head growth, setting-sun eyes; fever or redness on the tract	Neuro checks, head circumference in infants	At once: needs imaging

ENDOCRINE

CONDITION	CUE CLUSTER	KEY DRUG OR ACTION	TEACH OR REPORT
Adrenal crisis (Addison disease, or long-term steroids stopped or not raised)	Hypotension that resists fluids, vomiting, confusion, low Na, low glucose; high K in primary disease	IV hydrocortisone 100 mg, dextrose in saline	Never stop steroids abruptly; double the dose when ill (more for high fever, per plan); injectable kit and alert ID
Cushing syndrome	Moon face, central obesity, thin bruising skin, high glucose, low K, high BP	Protect skin, check glucose and K, watch for masked infection	Stress-dose steroids around surgery; taper, never stop
Myxedema coma	Untreated hypothyroidism: low temperature, slow HR, slow breathing, drowsy to coma	Airway first; IV levothyroxine plus a glucocorticoid; slow rewarming, careful fluids	Report shallow breathing or a falling level of consciousness
Thyroid storm	High fever, very fast HR, agitation or delirium, vomiting, diarrhea, often after infection, trauma or surgery	Beta blocker, antithyroid drug (PTU) before iodine, hydrocortisone, cooling	Report rising temperature, new rhythm, confusion
Antithyroid drugs (methimazole, PTU)	Fever or sore throat; yellow skin	Report at once; the provider decides about holding the drug and checking a blood count (agranulocytosis; PTU liver injury)	Beta blocker may be ordered for symptoms meanwhile
Levothyroxine	Too much: palpitations, tremor, heat intolerance	Start low in older adults and heart disease	Lifelong, same time daily, empty stomach
Pheochromocytoma	Spells of high BP, headache, sweating, palpitations	No abdominal palpation; alpha blocker before any beta blocker	After removal: watch for low glucose (and BP)

CARDIAC AND BLOOD PRESSURE

CONDITION	CUE CLUSTER	FIRST ACTION	REPORT WHEN
Right ventricular (inferior) MI	Low BP, distended neck veins, clear lungs after nitroglycerin	Stop nitrates, legs up, fluid bolus as ordered	At once
Nitroglycerin infusion hypotension	SBP falls, dizziness	Slow or stop the drip, lower the head of the bed	SBP stays low
Mechanical complication days after MI	New loud murmur, sudden pulmonary edema	Oxygen, upright, monitor	Any new murmur, at once
Pericarditis	Sharp pain worse lying flat, eased leaning forward; friction rub	NSAID and colchicine as ordered; upright	Low BP, muffled heart sounds, JVD (tamponade)
Aortic dissection	Sudden tearing chest or back pain, arm BP difference	Notify; expect IV beta blocker first, then BP lowering	New neuro deficit or limb pain
Hypertensive emergency vs severe BP without symptoms	Emergency: headache, vision change, confusion, chest pain. Severe BP alone: no symptoms	Emergency: IV drug, lower BP no more than about 25% in the first hour. No symptoms: recheck, oral drug, adherence review	Any new organ sign
Bad BP reading	Sudden change, client looks the same	Recheck with the right cuff size and technique	Still high on recheck
Valve disease	Aortic stenosis: exertional syncope, angina. Mitral stenosis: atrial fibrillation, dyspnea, emboli	Activity limits; anticoagulation as ordered	Syncope, stroke signs, pulmonary edema
Infective endocarditis risk	Prosthetic valve or prior endocarditis	Antibiotic before dental work as prescribed	Fever, new murmur, petechiae
Femoral access bleeding after PCI	New back or flank pain, rising HR, falling BP, groin may look normal	Notify at once (retroperitoneal bleed)	At once

GI, LIVER AND RENAL

CONDITION	CUE CLUSTER	KEY ACTION OR DRUG	REPORT WHEN
Variceal bleeding (cirrhosis)	Vomiting large amounts of bright red blood	Side-lying, airway; two large IVs; octreotide and an antibiotic; banding within 12 h	Falling BP, confusion
Hepatic encephalopathy	Confusion, flapping tremor, high ammonia; trigger: bleeding, infection, constipation, sedatives	Lactulose to 2 to 3 soft stools a day, rifaximin; fall precautions, no sedatives	Deeper drowsiness
Ascites	Tense abdomen, weight gain	Sodium restriction, spironolactone with furosemide; daily weight and girth	Fever or belly pain (infected ascites)
Acute pancreatitis	Epigastric pain to the back	IV fluids, IV opioids, early feeding as tolerated	Low calcium, high glucose, breathing trouble
Chronic pancreatitis	Fatty stools, weight loss	Pancreatic enzymes with every meal and snack, swallowed whole	High glucose
Peptic ulcer perforation or appendix rupture	Sudden severe pain then rigid, board-like abdomen (appendix: pain suddenly stops, then spreads)	NPO, notify at once	At once
Bleeding after gastric surgery	NG drainage turns bright red again	Vital signs, notify; do not reposition the tube	At once
Post-strep glomerulonephritis	Dark (tea- or rust-colored) urine, puffy face or eyes, high BP, 1 to 2 weeks after a throat infection or 3 to 4 after a skin infection	Daily weight, I&O, BP; salt limits; diuretics as ordered	Headache or confusion (hypertensive encephalopathy)
Nephrotic syndrome	Massive edema, heavy proteinuria, low albumin	Steroids; skin care, weight and girth, infection precautions	Fever, clot signs
Rhabdomyolysis	Muscle pain, dark brown urine, very high CK	Large IV fluid volumes to keep urine output high	Falling output, high K
Kidney transplant rejection	Fever, graft tenderness, less urine, rising creatinine	Notify at once; strict immunosuppressant schedule	At once
Dialysis problems	PD: cloudy effluent, belly pain. First hemodialysis: headache, nausea, confusion (disequilibrium)	PD: send effluent for culture. HD: report; orders are changed	At once
Postobstructive diuresis	Large hourly urine after a catheter relieves retention; dizziness on sitting	Hourly output, orthostatic vitals, electrolytes	Hourly totals stay high

BLOOD AND CANCER EMERGENCIES

CONDITION	CUE CLUSTER	FIRST ACTION	REPORT WHEN
Sickle cell pain crisis	Severe pain in legs, back, chest; triggers: dehydration, infection, cold, exertion	Scheduled opioids or PCA, IV and oral fluids, warmth, oxygen if hypoxemic	Chest pain, fever, cough
Acute chest syndrome	Fever, chest pain, new infiltrate, hypoxemia	Oxygen, antibiotics, incentive spirometry, transfusion as ordered	At once
Splenic sequestration (children)	Sudden big spleen, Hgb falls 2 g/dL or more, shock	Fluids and transfusion as ordered	At once
Tumor lysis syndrome	After first chemo: high K, phosphate, uric acid, rising creatinine	Hydration, allopurinol or rasburicase, cardiac monitor	Rhythm change, falling urine output
Superior vena cava syndrome	Face and arm swelling, neck vein distention, worse bending or lying	HOB up, oxygen; no IV or BP in the arms	Stridor or confusion
Spinal cord compression from cancer	Back pain worse lying down, then leg weakness and bladder trouble	Notify now: urgent MRI, dexamethasone	At once: delay means paralysis
DIC	Oozing sites, petechiae, low platelets, long PT/aPTT, high D-dimer	Bleeding precautions; treat the cause; products as ordered	New bleeding or organ signs
Macrocytic anemia	High MCV; numb feet points to B12 (alcohol, gastric surgery)	B12 replacement; folate alone can hide B12 nerve damage	Worsening neuropathy
HIV with low CD4	Opportunistic infection risk	Prophylaxis such as TMP-SMX as prescribed; ART at any count	Fever, cough, new neuro signs

RESPIRATORY

CONDITION	CUE CLUSTER	FIRST ACTION	REPORT WHEN
Severe asthma	Single words, accessory muscles; a quiet chest means little air moves	Nebulized bronchodilators, steroids, oxygen; prepare for intubation	Silent chest, drowsiness, rising CO_2
Beta-agonist side effects	Tremor, tachycardia after albuterol	Expected: continue and monitor	Chest pain, new rhythm
ARDS	Hypoxemia despite high oxygen, fast breathing, crackles after sepsis or pneumonia	Call the rapid response team; stay with the client	At once
Pneumonia	Fever, crackles, productive cough	Fluids, deep breathing, walking, oxygen to target	Falling SpO_2, confusion, low BP
Cystic fibrosis	Thick secretions, fatty stools, salty sweat	Airway clearance several times a day; enzymes with meals and snacks	Exacerbation signs

CHILDREN

CONDITION	CUE CLUSTER	KEY ACTION	TEACH OR REPORT
Kawasaki disease	Fever 5 days or longer, red eyes without discharge, red cracked lips, strawberry tongue, swollen hands and feet, rash	IVIG and aspirin	Heart follow-up (coronary aneurysm risk)
Heart failure from a left-to-right shunt (VSD)	Sweating and tiring with feeds, fast breathing, poor weight gain	Small frequent high-calorie feeds, upright	Weight loss, worse breathing
Hirschsprung disease	No meconium, distended belly, bilious vomiting	NPO, report; rectal biopsy confirms	Fever and explosive diarrhea (enterocolitis)
Pyloric stenosis	Projectile non-bilious vomiting, hungry, olive mass	Fluids and electrolytes before surgery	Dehydration signs
Wilms tumor	Painless abdominal mass	Sign at the bed: do not palpate the abdomen	High BP, blood in urine

INJURY, HEAT AND COLD

CONDITION	CUE CLUSTER	FIRST ACTION	REPORT WHEN
Compartment syndrome	Pain out of proportion, worse on passive stretch; pulse may still be present	Loosen cast, splint or dressing; limb at heart level, not raised	At once: pallor and pulselessness are late
Heat stroke	Core above 40 °C with confusion	Rapid cooling (cold water immersion or ice); stop at about 38.5 to 39 °C	Dark urine, bleeding
Hypothermia	Confused, no longer shivering	Remove wet clothing, rewarm, handle gently (ventricular fibrillation risk)	Rhythm change
Phantom limb pain	Pain in the missing limb	Believe it, assess it, treat it	Pain not controlled

SAFETY A limb that is cold, pale and pulseless is an arterial emergency: do not elevate it, warm it or massage it; notify at once.

Sources (9) are listed with links at erbasics.com/sheets/physiological-adaptation-conditions.html. For education and exam preparation only. Not medical advice; follow current guidelines and your institution's protocols. ER Basics is an independent study aid not affiliated with any certifying body.