NGN NCLEX 2026 | GASTROINTESTINAL | HIGH-YIELD

Constipation & Diarrhea

Pathophysiology, nursing priorities, pharmacology, NCJMM clinical judgment, and patient teaching for the two most common elimination disorders on the exam.

OVERVIEW

01 Definitions & Why They Matter

CONSTIPATION

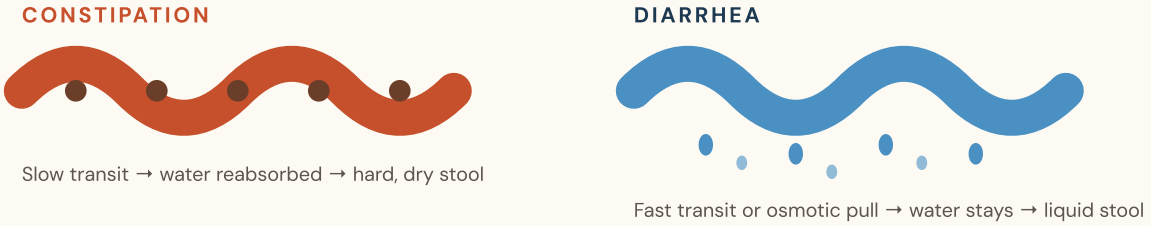
Fewer than 3 BMs per week

- **Hard, dry, lumpy stools** that are difficult to pass
- **Straining**, incomplete evacuation, sensation of blockage
- Often accompanies immobility, opioids, dehydration, low-fiber diets, pregnancy, aging, hypothyroidism, IBS-C, Parkinson's, spinal cord injury
- **Why it matters:** Straining triggers **Valsalva** — dangerous in cardiac, post-MI, post-op, glaucoma, and increased ICP patients

DIARRHEA

More than 3 loose/watery stools per day

- **Increased frequency, fluidity, or volume** of stool
- Urgency, cramping, hyperactive bowel sounds
- Acute (<14 days) typically infectious; chronic (>4 weeks) from IBD, IBS-D, malabsorption, tube feedings, laxative abuse, meds (antibiotics, Mg antacids)
- **Why it matters:** Rapid **fluid + potassium loss** → dehydration, hypokalemia, **metabolic acidosis** (bicarb loss). Dangerous in infants & older adults.



Slow transit → water reabsorbed → hard, dry stool

Fast transit or osmotic pull → water stays → liquid stool

PATHOPHYSIOLOGY

02 How Each Develops — Simplified

Constipation Mechanism

Trigger: Low fiber, low fluids, inactivity, opioids, anticholinergics, iron, ↓ thyroid, pregnancy

↓

Colonic motility **slows** (peristalsis decreases)

↓

Stool stays in colon **longer**

↓

Colon **reabsorbs more water** from stool

↓

Stool becomes **hard, dry, difficult to pass**

↓

Complications: Fecal impaction → paralytic ileus → bowel obstruction → perforation

Diarrhea Mechanism (4 Types)

Osmotic: Unabsorbed solute (lactose, Mg, sorbitol) → pulls water into lumen

↓

Secretory: Toxins (C. diff, cholera) → gut secretes water/electrolytes

↓

Inflammatory: IBD, invasive bacteria → mucosal damage → blood/mucus in stool

↓

Motility: IBS, hyperthyroid, post-vagotomy → rapid transit, less absorption

↓

Result: Loss of fluid, Na^+, K^+, HCO_3^- → dehydration, **hypokalemia**, **metabolic acidosis**

CLINICAL MANIFESTATIONS

03 Signs, Symptoms & Red Flags

ASSESSMENT AREA	CONSTIPATION	DIARRHEA
STOOL	Hard, dry, small, lumpy; <3/week; streaks of bright red blood from straining	Loose, watery, frequent; >3/day; may be foul, green, bloody, mucus-filled
BOWEL SOUNDS	**Hypoactive** or absent	**Hyperactive** (borborygmi)
ABDOMEN	Distended, firm, tender; palpable stool in LLQ	Cramping, tender, may be distended with gas
SYSTEMIC	Anorexia, N/V, headache, fatigue, rectal fullness	Fever, urgency, tenesmus, fatigue, weakness
FLUID/VS	Usually stable unless obstruction develops	**Tachycardia, hypotension, dry mucous membranes, ↓ skin turgor, ↓ UOP**
LABS / ABG	Usually WNL; ↑ BUN if dehydrated	**↓ K^+**, ↓ Na^+, ↓ HCO_3^-, **metabolic acidosis** (↓ pH)

🚨 Red Flag Findings — Escalate Immediately

- **Absent bowel sounds** + distended abdomen → paralytic ileus/obstruction
- **Bloody stools** (frank or melena) → GI bleed, invasive infection
- **K^+ < 3.5** with muscle weakness, U waves, flat/inverted T waves on ECG
- **Foul, watery, green stool** after antibiotics → suspect C. diff
- **Ribbon-like stools** or "pencil thin" → possible obstruction or mass
- **Severe dehydration**: HR >120, BP <90/60, UOP <30 mL/hr
- **Severe abdominal pain** after enema or suppository → possible perforation
- **Toxic megacolon** (fever, tachycardia, rigid distended abdomen) in IBD/C. diff

PRIORITY NURSING INTERVENTIONS

04 ABCs, Safety & Management

CONSTIPATION MANAGEMENT

ASSESS

- Last BM, usual pattern, stool characteristics (Bristol Scale)
- Bowel sounds in all 4 quadrants, abdominal distension, tenderness
- Medications (opioids, iron, anticholinergics, CCBs)
- Fluid & fiber intake, activity level
- Rectal exam for impaction if ordered

INTERVENE

- **Fluids** 2–3 L/day unless contraindicated (HF, CKD)
- **Fiber** 25–38 g/day (gradual increase to prevent gas)
- **Ambulate** — promotes peristalsis
- Encourage BM **after meals** (gastrocolic reflex strongest 30 min post-meal)
- Privacy, upright position, footstool to mimic squat
- **Digital disimpaction** for impaction (watch for vagal response → bradycardia)
- Enemas only as ordered — left side-lying position, insert 3–4 in.
- **Stool softener prophylactically** for all opioid patients

DIARRHEA MANAGEMENT

ASSESS (ABC-DRIVEN)

- **VS q2–4h**, especially HR & BP (orthostatics)
- **Strict I&O**, daily weights (1 kg ≈ 1 L fluid)
- Skin turgor, mucous membranes, capillary refill
- Electrolytes (esp. **K^+**), BUN/creatinine, ABG
- Stool: frequency, volume, color, presence of blood/mucus
- Recent antibiotic use, travel, food exposure, C. diff testing

INTERVENE

- **Rehydrate:** Oral rehydration solution (Pedialyte) if tolerated; **IV NS or LR** if severe
- **Replace K^+** as ordered — **never IV push**
- **Contact precautions** for infectious causes
- **C. diff → SOAP & WATER only** (alcohol does NOT kill spores)
- Perineal skin care after each stool; barrier cream to prevent IAD
- Clear liquids → BRAT diet → regular as tolerated
- **Hold antidiarrheals** in suspected infectious cause — they trap toxin!

PHARMACOLOGY

05 Laxatives & Antidiarrheals

Laxatives for Constipation

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Psyllium (Metamucil) Bulk-forming	Absorbs water → ↑ stool bulk → natural peristalsis. **Safest**, first-line.	Bloating, gas, esophageal obstruction if taken dry	**MUST mix with full glass of water**; follow with more water; avoid in obstruction/dysphagia
Docusate (Colace) Stool softener	↑ water/fat into stool — **softens** but does not stimulate. Prevents straining.	Mild cramping, throat irritation (liquid)	**Standard for post-op, cardiac, post-MI, post-partum, opioid users**
Polyethylene glycol (MiraLAX) Osmotic	Pulls water into colon → softens stool, ↑ motility	Bloating, cramping, electrolyte shifts w/ long use	Takes 1–3 days; mix in 8 oz fluid; safe for chronic use
Lactulose Osmotic	Pulls water into colon; **also lowers ammonia** → used in hepatic encephalopathy	Bloating, gas, hypernatremia, hypokalemia	**Dual use**: goal of 2–3 soft stools/day. Monitor LOC + ammonia level
Bisacodyl (Dulcolax), Senna Stimulant	Stimulate colonic peristalsis directly	Cramping, diarrhea, **cathartic colon** with chronic use, dependence	**Short-term only**; don't crush EC tablets; don't give with milk/antacids
Magnesium hydroxide (MOM), Mg citrate Saline	Draws water into colon osmotically	**Hypermagnesemia**, dehydration, diarrhea	**AVOID in renal failure** (can't excrete Mg); monitor hydration
Mineral oil Lubricant	Coats stool → eases passage	**Lipoid aspiration pneumonia**, ↓ absorption of fat-soluble vitamins (A,D,E,K)	**Never give at bedtime** or to bedridden/dysphagic patients — aspiration risk
Methylnaltrexone (Relistor) PAMORA	Blocks peripheral opioid receptors in gut without reversing analgesia	Cramping, flatulence, nausea	For **opioid-induced constipation** only; SQ injection

Antidiarrheals & C. diff Therapy

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING CONSIDERATIONS
Loperamide (Imodium) Opioid-like	Slows peristalsis → ↑ water absorption	Constipation, dizziness, **cardiac toxicity in high doses**	**CONTRAINDICATED in C. diff, E. coli O157, bloody diarrhea** — traps toxin → toxic megacolon
Diphenoxylate/Atropine (Lomotil) Opioid + anticholinergic	Slows gut motility	Dry mouth, sedation, anticholinergic effects, dependence	Schedule V controlled substance; same contraindications as loperamide
Bismuth subsalicylate (Pepto-Bismol) Adsorbent	Coats GI tract, binds toxins, antimicrobial	**Black stools & tongue** (harmless), tinnitus	**Avoid in children & teens** (Reye's syndrome — contains salicylate). Avoid if on anticoagulants
Vancomycin PO Antibiotic (C. diff)	**Stays in GI tract** (not absorbed) → kills C. diff locally	Nausea, abdominal pain (minimal systemic effects PO)	**PO route only** for C. diff (IV is for systemic MRSA). First-line for C. diff per IDSA
Fidaxomicin (Dificid) Antibiotic (C. diff)	Narrow-spectrum macrocyclic — targets C. diff, spares normal flora	Nausea, vomiting	Lower recurrence vs vancomycin; expensive — often reserved for recurrent cases
Probiotics (Lactobacillus, Saccharomyces) Biotic	Restores gut flora after antibiotics or diarrhea	Mild gas, bloating	**Avoid in immunocompromised** (risk of bacteremia/fungemia); don't give with antibiotics (separate 2 hrs)

EXAM PITFALLS

06 NCLEX Test Traps ⚠️

TRAP 01

Patient with C. diff — can the nurse use alcohol-based hand rub?

NO. C. diff forms spores that alcohol does NOT kill. Use **soap and water** every time. Contact precautions + dedicated equipment.

Alcohol foam ✗ Soap + water

TRAP 02

Patient has bloody diarrhea + fever — give loperamide?

NO. Slowing motility in infectious diarrhea traps toxins → **toxic megacolon, sepsis**. Same rule for any suspected infection (C. diff, E. coli O157, Salmonella, Shigella).

TRAP 03

ABG interpretation — vomiting vs. diarrhea?

Vomiting = metabolic ALKALOSIS (loss of HCl/acid from stomach).
Diarrhea = metabolic ACIDOSIS (loss of bicarb from intestines).

TRAP 04

What's the #1 electrolyte to monitor in diarrhea?

Potassium. Hypokalemia causes muscle weakness, flat/inverted T waves, U waves, and **lethal arrhythmias**. Replace PO or IV — never push IV K^+.

TRAP 05

Post-MI patient is constipated — safe to let them strain?

NO. Straining = **Valsalva maneuver** → bradycardia, ↓ venous return, then rebound tachycardia. Risk of arrhythmia or rupture. Give **stool softener (Colace)** prophylactically.

TRAP 06

Patient with CKD asks about Milk of Magnesia for constipation.

Contraindicated. Kidneys can't excrete Mg → **hypermagnesemia** (hyporeflexia, respiratory depression, bradycardia). Use osmotic like PEG or a bulk-forming agent instead.

TRAP 07

Client prescribed psyllium (Metamucil) — teaching priority?

Mix with a full glass of water and drink immediately, then drink more water. Without fluid, psyllium can swell and cause **esophageal or intestinal obstruction**.

TRAP 08

Impaction patient — during digital removal, HR drops from 82 → 48.

STOP immediately. Vagal stimulation from rectal manipulation → **bradycardia**. Monitor, notify HCP. Never continue through bradycardia.

TRAP 09

Lactulose is ordered for cirrhosis patient. Goal?

2–3 soft stools per day to excrete ammonia. Not just for constipation — it **lowers serum ammonia** in hepatic encephalopathy. Monitor LOC as the outcome, not just bowel movements.

TRAP 10

When would mineral oil be dangerous?

Bedtime, bedridden, or dysphagic patients → risk of **lipoid aspiration pneumonia**. Also impairs absorption of fat-soluble vitamins (A, D, E, K).

CLINICAL JUDGMENT MODEL

07 NCJMM Case Scenario

> *"Mr. Davies, 78, was admitted 6 days ago with pneumonia and started on clindamycin. This morning he reports 6 episodes of foul-smelling, watery, greenish diarrhea and abdominal cramping. Vital signs: T 101.4 °F, HR 118, BP 96/58, RR 22, SpO_2 94% RA. He appears fatigued with dry mucous membranes. Labs: K^+ 3.1, Na^+ 149, HCO_3^- 18, creatinine 1.6 (baseline 0.9). The HCP orders stool testing for C. difficile, IV LR at 125 mL/hr, and PO vancomycin 125 mg q6h."*

1 RECOGNIZE CUES

Recent antibiotic, **foul/watery/green stool**, fever, tachycardia, hypotension, **↓ K^+**, **↓ HCO_3^-** (acidosis), AKI, dry mucous membranes

2 ANALYZE CUES

Classic **C. diff** presentation with **hypovolemia + metabolic acidosis + hypokalemia**. AKI likely pre-renal from volume loss.

3 PRIORITIZE HYPOTHESES

#1 Fluid volume deficit → perfusion/AKI. **#2 Electrolyte imbalance** (K^+). **#3 Infection transmission**. #4 Skin breakdown.

4 GENERATE SOLUTIONS

IV LR per order, K^+ replacement, **contact precautions + soap-and-water hand hygiene**, PO vanco, hold loperamide, barrier skin care, strict I&O, daily weights

5 TAKE ACTION

Start IV LR; initiate contact isolation (sign on door, gown/gloves, private room, dedicated equipment); give PO vanco; replace K^+ as ordered; notify HCP of AKI; perineal care after each stool

6 EVALUATE OUTCOMES

Expected: UOP >30 mL/hr, HR <100, BP >100/60, K^+ 3.5–5.0, ↓ stool frequency, skin intact, no transmission to roommates/staff

08 PATIENT & FAMILY TEACHING
Home Management

CONSTIPATION TEACHING

Keep things moving

- ✓ **Drink 2–3 L water/day** (unless fluid-restricted)
- ✓ Eat **25–38 g fiber/day** — fruits (prunes, pears, apples with peel), vegetables, whole grains, legumes, bran
- ✓ Increase fiber **slowly** over 1–2 weeks to prevent gas and cramping
- ✓ **Walk daily** — 30 min of ambulation helps peristalsis
- ✓ **Don't ignore the urge** to have a BM
- ✓ Attempt BM at **same time daily**, ideally 30 min after breakfast
- ✓ Use a **footstool** to position knees above hips (squat position)
- ✓ **Don't strain** — avoid Valsalva, especially with cardiac disease
- ✓ Avoid **chronic stimulant laxative** use — leads to dependence/cathartic colon
- ✓ Report: no BM in >3 days with abdominal pain, blood in stool, weight loss, narrow stools

DIARRHEA TEACHING

Replace & protect

- ✓ **Oral rehydration**: Pedialyte, Gatorade (diluted for kids), broth, sports drinks — small sips frequently
- ✓ Advance diet: clear liquids → **BRAT** (Bananas, Rice, Applesauce, Toast) → bland → regular
- ✓ **Avoid**: dairy, caffeine, alcohol, fatty/fried foods, spicy foods, high-sugar drinks, sorbitol (gum)
- ✓ **Handwash with soap + water** after every bathroom trip, before eating
- ✓ Don't share towels, utensils, or toiletries if infectious
- ✓ **Do not take OTC antidiarrheals** if fever, blood in stool, or recent antibiotic use — call HCP first
- ✓ Clean soiled surfaces with **bleach solution** if C. diff at home
- ✓ Protect perineal skin: gentle cleansing, pat dry, barrier cream
- ✓ **Call HCP:** diarrhea >48 hr, blood/black stools, fever >101 °F, signs of dehydration (dizzy, no urine >8 hr, dry mouth, confusion)
- ✓ Complete full antibiotic course for C. diff even if symptoms improve

MEMORY BOOSTERS

09 Mnemonics & Pattern Recognition

MNEMONIC

FLUID — Constipation Tx

F Fiber (25–38 g/day, slowly)
L Liquids (2–3 L/day)
U Up & moving (ambulation)
I Ignore not the urge
D Daily routine (after meals)

MNEMONIC

BRAT Diet — Diarrhea

B Bananas (potassium replacement)
R Rice (white, easy to digest)
A Applesauce (pectin — binds stool)
T Toast (plain, bland)

Short-term only — lacks protein & fat; advance to regular diet within 48 hr.

PATTERN

ABG Rule: Two-Letter Trick

Vomiting = AlkAlosis (both have an "A" — lose **A**cid from stomach)
Diarrhea = DiaciDosis (D's together — lose bicarb from intestines)

Any massive GI loss from **above** = alkalosis; from **below** = acidosis.

SAFETY

C. diff: "SOAP not SOAK"

SOAP and water — alcohol sanitizer does NOT kill C. diff spores.

Also remember:
- **Contact** precautions (gown, gloves, private room)
- Vancomycin **PO** (stays in gut)
- **No antidiarrheals** — traps the toxin
- Bleach for environmental cleaning

RED FLAG

Diarrhea → "LOW K, LOW pH"

Chronic or severe diarrhea predictably causes:
• **Hypokalemia** (K^+ <3.5) — weakness, U waves, arrhythmias
• **Metabolic acidosis** (HCO_3^- <22, pH <7.35)
• Hypovolemia → AKI
Expect these. Assess for them before the HCP asks.

PHARM

Opioid Rule

Every opioid patient gets a stool softener.

Docusate (Colace) is prophylactic standard of care for:
• Post-op patients
• Post-MI / cardiac patients
• Post-partum patients
• Any chronic opioid user

Straining = Valsalva = bradycardia = bad.

PATTERN

Bowel Sounds Map

Hypoactive or **absent** = Constipation, ileus, obstruction, peritonitis, post-op

Hyperactive (borborygmi) = Diarrhea, early obstruction, gastroenteritis, GI bleed

Listen **5 min per quadrant** before declaring sounds "absent."

DRUG TRICK

Lactulose = Dual Duty

Not just a laxative —
Lactulose lowers serum ammonia in hepatic encephalopathy.

Goal: 2–3 soft stools/day
Evaluate by: LOC improvement, not just stool count.