NGN NCLEX 2026 · GASTROINTESTINAL · HIGH-ACUITY

GI Bleed — *Upper & Lower*

Rapid clinical judgment for recognizing, prioritizing, and managing acute bleeding anywhere along the gastrointestinal tract — from esophagus to rectum.

Priority: Time-Critical | ABC + Shock Management | Ligament of Treitz = Boundary

01 Definition & Overview

KNOW THE BOUNDARY

GI bleeding is any hemorrhage from the GI tract — mouth to anus. The **ligament of Treitz** (duodenojejunal junction) is the anatomical landmark that separates *upper* from *lower* GI bleeds. Source matters — it drives workup, meds, and interventions.

ABOVE LIGAMENT OF TREITZ

Upper GI Bleed

Bleeding from the **esophagus, stomach, or duodenum**. Most common, more likely to be massive and life-threatening.

~80% of GI bleeds are upper in origin.

BELOW LIGAMENT OF TREITZ

Lower GI Bleed

Bleeding from the **jejunum, ileum, colon, rectum, or anus**. Often slower but can be life-threatening in elderly or anticoagulated clients.

Diverticulosis is the #1 cause.

02 Pathophysiology

CAUSES → BLEED → SHOCK

The cascade: Vessel rupture or mucosal erosion → blood loss into GI lumen → hypovolemia → decreased preload → decreased cardiac output → **hypovolemic shock** if uncorrected.

Upper GI — Common Causes

1. **Peptic Ulcer Disease (PUD)**
   #1 cause — gastric/duodenal erosion, H. pylori, NSAIDs
2. **Esophageal Varices**
   Portal hypertension (cirrhosis) → ruptured dilated veins
3. **Mallory-Weiss Tear**
   Violent vomiting → esophageal mucosal tear
4. **Gastritis / Esophagitis**

Lower GI — Common Causes

1. **Diverticulosis**
   #1 cause — outpouchings rupture painlessly
2. **Angiodysplasia**
   Malformed vessels — common in elderly
3. **Hemorrhoids / Anal Fissures**
   Bright red blood on toilet paper/surface of stool
4. **IBD (Crohn's / UC)**

Alcohol, stress, NSAIDs, steroids

Chronic mucosal inflammation → ulceration

5 **Gastric Cancer**
Erosive tumor invasion

5 **Colorectal Cancer / Polyps**
Erosive masses; occult or frank bleed

03 Signs & Symptoms

SOURCE LOCATION DICTATES COLOR

CLINICAL FINDING	UPPER GI	LOWER GI
Hematemesis Vomiting blood	✓ **Bright red OR coffee-ground**	✗ Rare
Melena Black, tarry, sticky stool	✓ **Classic finding (digested blood)**	Possible if right colon
Hematochezia Bright red blood per rectum	Only if massive/rapid	✓ **Hallmark finding**
Maroon stools	Possible	✓ **Right colon source**
Pain location	**Epigastric / burning**	**Cramping, lower abdominal**
BUN:Creatinine ratio	✓ **Elevated (>20:1)**	Normal
Shared signs of blood loss	*Tachycardia · Hypotension · Pallor · Cool/clammy skin · Dizziness · Weakness · Decreased UOP · Thirst · Confusion*	

RED FLAGS **Call HCP & Activate Rapid Response**

⚠ SBP < 90 mmHg	⚠ HR > 120 bpm	⚠ Active bright red hematemesis
⚠ UOP < 30 mL/hr	⚠ Altered LOC / confusion	⚠ Hgb < 7 g/dL
⚠ Cool, clammy, mottled skin	⚠ Orthostatic drop ≥ 20 mmHg	⚠ Cap refill > 3 seconds

04 Priority Nursing Interventions

ABC → STOP BLEED → REPLACE

A
AIRWAY

- → Keep NPO
- → Suction at bedside (active hematemesis)
- → Side-lying if vomiting — prevent aspiration
- → Prepare for intubation if massive bleed

B
BREATHING

- → O_2 2 L/min via nasal cannula (titrate)
- → Continuous SpO_2 monitoring
- → Monitor RR & work of breathing
- → HOB elevated if tolerated

C
CIRCULATION

- → Two large-bore IVs (16–18 gauge)
- → Bolus 0.9% NS or LR — isotonic
- → Type & crossmatch; prepare blood
- → VS q15min until stable
- → Flat / Trendelenburg if shock (no active vomiting)

Secondary Priorities & Continuing Care

MONITOR
Strict I&O, insert Foley catheter, UOP goal > 30 mL/hr

LABS
Serial H&H q4–6hr, CBC, coags (PT/INR/PTT), BUN/Cr, type & cross

NG TUBE
May be inserted for decompression / lavage per HCP

PREPARE FOR
EGD (upper) or colonoscopy (lower) — diagnostic & therapeutic

HOLD
All NSAIDs, aspirin, anticoagulants, antiplatelets

TRANSFUSION
PRBCs, FFP, platelets per protocol; warm blood via central line

SAFETY
Fall precautions (dizziness/orthostasis); call bell in reach

COMFORT
Mouth care after emesis; reposition; reduce anxiety

05 Pharmacology

STOP THE BLEED · SUPPRESS ACID · REVERSE ANTICOAGULATION

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING PEARLS
Pantoprazole PPI	Blocks gastric H^+/K^+ ATPase → suppresses acid production	Headache, ↑ fracture risk, ↓ Mg, C. diff risk	Give IV push slowly; empty stomach PO
Famotidine H_2 Blocker	Blocks H_2 receptors → ↓ gastric acid secretion	Headache, dizziness, confusion in elderly	Reduce dose in renal impairment
Octreotide Somatostatin analog	Vasoconstricts splanchnic circulation → ↓ variceal flow	Bradycardia, hyperglycemia, nausea	First-line for esophageal variceal bleed
Vasopressin ADH analog	Potent vasoconstriction → decreases portal pressure	Chest pain, MI, HTN, water retention	Monitor ECG closely; give with nitro drip
Propranolol Non-selective β-blocker	Reduces portal venous pressure (prophylaxis)	Bradycardia, hypotension, bronchospasm	Hold if HR < 60 or SBP < 90
Vitamin K Phytonadione	Reverses warfarin → restores clotting factors	Flushing, anaphylaxis with IV push	**NEVER IV push** — slow infusion; SubQ preferred
Ceftriaxone Antibiotic	Prophylaxis against bacterial infection in cirrhotics	Diarrhea, rash, C. diff	Standard for variceal bleed with cirrhosis

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	NURSING PEARLS
PRBCs / FFP Blood products	Replace lost red cells / clotting factors	Transfusion reactions, TACO, TRALI	Verify with 2 nurses; NS only; 18g IV

06 NCLEX Test Traps

WHERE STUDENTS LOSE POINTS

✗ Thinking coffee-ground emesis means the bleeding stopped.

✓ Coffee-ground = old, partially digested blood = still bleeding but slower. Still upper GI, still emergent.

✗ Relying on the first Hgb/Hct to gauge blood loss.

✓ H&H *lags* in acute bleeds — values stay deceptively normal until plasma redistributes. Trend serial labs and watch VS + LOC.

✗ Assuming bright red rectal blood is always a lower GI bleed.

✓ Massive/rapid upper GI bleeds can present as hematochezia — the blood moves too fast to digest. Check VS and look at the whole picture.

✗ Giving Vitamin K by IV push to reverse warfarin.

✓ IV push Vit K = anaphylaxis risk. Administer by slow IV infusion or SubQ.

✗ Putting the actively vomiting client in Trendelenburg.

✓ Trendelenburg is for shock — but if the client is vomiting blood, **side-lying** protects airway first. Airway always beats positioning for shock.

✗ Choosing "administer PPI" as the first priority action.

✓ ABC first → large-bore IV access + isotonic fluids + O_2 + type & cross. Medications come after stabilization.

✗ Forgetting that elevated BUN with normal creatinine points to upper GI bleed.

✓ Digested blood = protein load → absorbed in small bowel → ↑ BUN. It's a classic NGN cue.

07 Patient Education

PREVENT THE NEXT BLEED

MEDICATION SAFETY

- Avoid NSAIDs (ibuprofen, naproxen) & aspirin unless HCP-approved
- Use acetaminophen for pain — max 4 g/day
- Take PPIs / H_2 blockers exactly as prescribed
- Complete full H. pylori regimen (triple/quadruple therapy)
- Discuss anticoagulant adjustments with HCP

LIFESTYLE MODIFICATIONS

- Stop alcohol — especially with cirrhosis / varices
- Smoking cessation — delays ulcer healing
- Manage stress — relaxation, counseling, sleep
- Avoid spicy, acidic, very hot foods if symptomatic
- Small, frequent meals — do not lie down for 2 hrs after eating

WARNING SIGNS TO REPORT

- Black, tarry, or sticky stools (melena)
- Bright red blood in stool or vomit
- "Coffee-ground" vomit
- Dizziness, weakness, fainting
- Persistent epigastric pain, especially at night

FOLLOW-UP & SCREENING

- Keep scheduled endoscopy/colonoscopy appointments
- Colorectal cancer screening per age guidelines
- Variceal banding every 1–2 weeks until eradicated
- Increase dietary iron (lean meat, leafy greens)
- Hydration — 2 L/day unless restricted

08 Memory Boosters

MNEMONICS & PATTERN CUES

UPPER GI BLEED CAUSES

BURP

- **B** Bleeding ulcer (PUD)
- **U** Ulcers & gastritis
- **R** Ruptured varices
- **P** Perforation / Mallory-Weiss

SIGNS OF SHOCK

SHOCK

- **S** Skin cool & clammy
- **H** Hypotension / ↑ HR
- **O** Oliguria (UOP < 30)
- **C** Confusion / ↓ LOC

K Kussmaul / rapid breathing

COLOR = LOCATION

BLACK

Black/tarry (melena) = *Upper* GI — digested

Coffee-ground = *Upper*, slower bleed

Bright red emesis = *Upper*, brisk

Bright red rectal = *Lower* GI (usually)

Maroon = Right colon / slow upper

PRIORITY SEQUENCE

VITALS

V Vital signs q15min

I IV access × 2 large-bore

T Type & crossmatch

A Airway / O_2

L Labs — H&H, coags, BUN

S Stop NSAIDs & anticoagulants

Quick-Hit Associations

Ligament of Treitz — the dividing line between upper & lower GI

Octreotide — first-line for *variceal* bleeds

PUD — #1 cause of upper GI bleeding

18-gauge IV — minimum for blood transfusion

BUN ↑ + normal Cr — classic upper GI bleed clue

Diverticulosis — #1 cause of lower GI bleeding

Type O-negative — universal donor in emergencies

Vitamin K — reverses warfarin, NEVER IV push

09 Clinical Judgment (NCJMM)

NEXT GEN NCLEX FRAMEWORK

Apply the model — Recognize · Analyze · Prioritize · Evaluate

RECOGNIZE CUES

Hematemesis, melena, hematochezia, epigastric pain, tachycardia, hypotension, pallor, ↓ UOP, dropping H&H, ↑ BUN, altered LOC.

ANALYZE CUES

Connect blood loss → hypovolemia → shock. Use color/location (coffee-ground vs. bright red) to identify upper vs. lower source. Watch for coagulopathy, anticoag use, cirrhosis history.

PRIORITIZE / TAKE ACTION

ABC → 2 large-bore IVs → isotonic fluids → O_2 → type & cross → NPO → notify HCP → hold NSAIDs/anticoagulants → prepare for EGD or colonoscopy.

EVALUATE OUTCOMES

VS stabilized (SBP > 100, HR < 100) · UOP > 30 mL/hr · H&H rising or stable · LOC intact · no further hematemesis/hematochezia · skin warm & dry.