

GASTROINTESTINAL • ONCOLOGY • NGN NCLEX 2026

Colorectal *Cancer*

Adenocarcinoma of the colon and rectum — the second leading cause of cancer-related death in the US. Master the right vs. left distinction, recognize subtle early cues, and prioritize like an exam-day pro.

3rdMOST COMMON
CANCER**45+**

SCREENING BEGINS

95%ARE
ADENOCARCINOMAS**10–15**

YRS POLYP → CANCER

1

DEFINITION / OVERVIEW

What Is Colorectal Cancer?

- Malignant tumor (most often **adenocarcinoma**) arising from the mucosal lining of the colon or rectum.
- Typically begins as a benign **adenomatous polyp** that progresses to cancer over **10–15 years** — making screening highly effective.
- Third most common cancer in both men and women in the U.S.; **second leading cause of cancer-related death**.
- Risk rises sharply after age 50; current screening guidelines start at **age 45** for average-risk adults.

🎯 Why It Matters for NCLEX

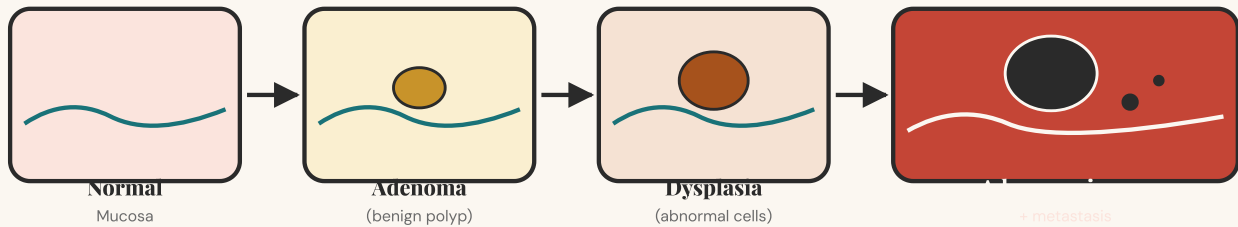
Colorectal cancer is a **highly preventable, highly screen-able** cancer. Expect questions on early detection, right-vs-left symptom patterns, post-op ostomy care, and chemotherapy side effects. The NGN scenarios will test your ability to recognize subtle cues like **unexplained iron-deficiency anemia in an older adult** as a red flag.

2

PATHOPHYSIOLOGY

From Polyp to Cancer

10–15 Year Progression — Why Screening Saves Lives



The adenoma-to-carcinoma sequence: most colorectal cancers begin as small, removable polyps.



Non-Modifiable Risk Factors

- Age ≥ 45 (risk doubles every decade after 50)
- Personal/family history of colorectal cancer or polyps
- **FAP** (Familial Adenomatous Polyposis)
- **Lynch syndrome / HNPCC** (hereditary nonpolyposis CRC)
- Inflammatory Bowel Disease (UC > Crohn's)
- African American ethnicity (higher incidence & mortality)



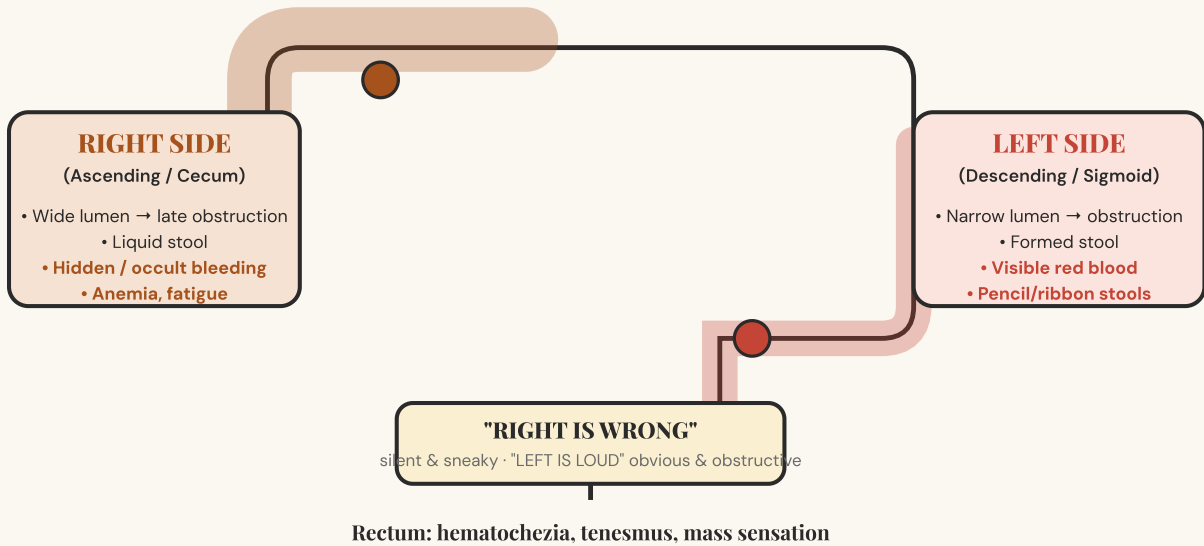
Modifiable Risk Factors

- Diet high in **red & processed meats**, low fiber
- Obesity & sedentary lifestyle
- Heavy alcohol use
- Cigarette smoking
- Type 2 diabetes

3

ANATOMY-BASED SYMPTOMS

Right Side vs. Left Side



Tumor location dramatically changes presentation — a classic NGN test point.

Right-Sided Tumors

- **Lumen is wide** & contents liquid — obstruction occurs late
- **Occult (hidden) bleeding** → iron deficiency anemia
- Vague abdominal pain or cramping
- Fatigue, weakness, pallor
- **Melena** (dark, tarry) if bleeding is heavy
- Palpable RLQ mass in advanced disease

Left-Sided Tumors

- **Lumen is narrow** & stool is formed — obstruction is common
- **Hematochezia** (bright red blood)
- **Pencil-thin / ribbon-like stools**
- Change in bowel habits (constipation alternating with diarrhea)
- Cramping LLQ pain, distention
- Tenesmus (rectal); urge with incomplete evacuation

4

SIGNS & SYMPTOMS

Early Whispers vs. Late Alarms

EARLY

Subtle & Easy to Miss

- Unexplained **fatigue** & weakness
- Mild change in bowel habits
- Vague abdominal discomfort or bloating
- **Occult blood** in stool (positive FOBT/FIT)
- Iron-deficiency anemia (especially in men & postmenopausal women)
- Slow, unintentional weight loss

LATE

Advanced & Obvious

- **Hematochezia** or melena
- **Bowel obstruction**: severe pain, distention, vomiting, no flatus
- Pencil/ribbon stools
- Significant weight loss, cachexia
- Palpable abdominal or rectal mass
- Hepatomegaly, jaundice, ascites (mets to liver)
- Bone pain, dyspnea (mets to bone, lung)



RED FLAGS — NOTIFY HCP / SUSPECT CRC

- ▶ New iron-deficiency anemia in adults > 50 (or > 45 with risk factors)
- ▶ Hematochezia or melena without an obvious source
- ▶ Unexplained weight loss > 10% body weight in 6 months
- ▶ Persistent change in bowel habits lasting > 6 weeks
- ▶ Bowel obstruction: absent bowel sounds, distention, vomiting, severe pain
- ▶ Post-op stoma turning **dusky, purple, or black** (ischemia/necrosis)
- ▶ Sudden severe abdominal pain & rigidity post-op (anastomotic leak / perforation)

5

PRIORITY NURSING INTERVENTIONS

ABC + Safety + Prioritization

A Airway / Breathing

- Post-op: monitor for atelectasis, pneumonia (incentive spirometer q1h while awake)
- Watch for pulmonary embolism — abdominal surgery is a major DVT/PE risk
- Assess O₂ sat & respiratory effort

C Circulation / Bleeding

- Trend **H&H**, vital signs, & orthostatics
- Stool for occult blood; assess all stool/ostomy output
- Type & cross if Hgb < 7 or active bleed
- Monitor for hypovolemic shock

🛡️ Safety

- Pre-op: **bowel prep** (mechanical + oral antibiotic), NPO, NG tube prep
- Post-op: **stoma assessment q4h** — pink/red = healthy
- Assess incision for anastomotic leak (fever, peritonitis)
- Fall precautions during chemo (neuropathy)

🎯 Stoma Color Assessment

- **Pink / beefy red** = healthy, well-perfused ✓
- **Pale / dusky** = poor perfusion → notify HCP
- **Purple / black** = NECROSIS → emergency, notify *immediately*
- Slight edema first 5–7 days is normal; bleeding should be minimal

🍽️ Nutrition & Recovery

- High-calorie, high-protein diet to support healing
- Small, frequent meals; advance from clears as bowel function returns
- Patients with extensive resection or ileus may need **TPN**
- Monitor I&O, weight daily; assess for dehydration with high ostomy output

6

PHARMACOLOGY

Chemo & Targeted Therapy Cheat Sheet

DRUG / CLASS	MECHANISM	KEY SIDE EFFECTS	CRITICAL NURSING ACTIONS
5-Fluorouracil (5-FU) Antimetabolite	Blocks DNA synthesis in cancer cells	Mucositis, diarrhea, myelosuppression, hand-foot syndrome, photosensitivity	Oral care q2h, monitor CBC, fluid replacement for diarrhea, sunscreen
Capecitabine Oral 5-FU prodrug	Converted to 5-FU in tumor tissue	Hand-foot syndrome, diarrhea, fatigue	Take with food & water; report painful palms/soles immediately
Oxaliplatin Platinum (FOLFOX)	DNA cross-linking	Cold-triggered peripheral neuropathy , nausea	Avoid cold drinks, cold air, ice for 3–5 days post-infusion. Wear gloves to handle frozen items.
Irinotecan Topoisomerase inh.	Inhibits DNA replication	Severe diarrhea (acute & delayed), neutropenia	Acute (during/within 24h): atropine . Delayed: loperamide high-dose. Monitor hydration.
Bevacizumab Anti-VEGF mAb	Blocks tumor angiogenesis	HTN, bleeding, impaired wound healing, GI perforation, proteinuria	Hold ≥ 4 weeks before/after surgery. Monitor BP & urine protein. Watch for sudden severe abd pain.
Cetuximab / Panitumumab Anti-EGFR mAb	Blocks epidermal growth factor	Severe acneiform rash (paradoxically a good prognostic sign), hypomagnesemia	Sun protection, gentle skin care, monitor Mg+ levels, pre-medicate to prevent infusion reaction
Leucovorin Folate rescue	Enhances 5-FU activity	Generally well tolerated	Given <i>with</i> 5-FU (not as a chemo neutralizer in this regimen — it potentiates 5-FU)

7

NCLEX TEST TRAPS

Wrong Answer ⚠️ vs. Right Answer ✅

⚠️ TRAP

"Screening colonoscopy begins at age 50."

✅ CORRECT

Current ACS & USPSTF guidelines recommend screening start at **age 45** for average-risk adults — earlier with family history.

⚠️ TRAP

"A pale, dusky stoma on day 2 post-op is normal swelling."

✅ CORRECT

A **pale, dusky, or purple/black stoma signals ischemia or necrosis** — notify the HCP immediately. Healthy stoma = pink to beefy red.

⚠️ TRAP

"Right-sided colon cancer presents with bright red rectal bleeding."

✅ CORRECT

Right-sided = occult bleeding & anemia. Bright red blood (hematochezia) is more typical of left-sided or rectal tumors.

⚠️ TRAP

"Encourage warm drinks and a heating pad for the patient on oxaliplatin."

✅ CORRECT

Oxaliplatin causes **cold-triggered neuropathy**, but warming is not the priority teaching — the priority is to **AVOID COLD** (drinks, air, ice) for 3–5 days post-infusion.

⚠️ TRAP

"A positive FIT result means the patient has colon cancer."

✅ CORRECT

A positive FIT/FOBT means **occult blood is present and a diagnostic colonoscopy is needed**. It is a screening tool, not a diagnostic confirmation.

⚠️ TRAP

"Sigmoid colostomy output should be liquid."

✅ CORRECT

The further along the colon, the more **formed** the stool. **Ascending** colostomy = liquid; **transverse** = mushy/soft; **descending/sigmoid** = formed.



PATIENT & FAMILY EDUCATION

Teaching Priorities



Prevention & Screening

- Begin screening at **age 45** (avg risk); earlier with family history of FAP/Lynch
- Colonoscopy q10 yrs if normal; FIT yearly; sigmoidoscopy q5 yrs
- Diet: **high fiber** (25–30 g/day), fruits, vegetables, whole grains
- Limit red meat & processed meats; avoid charred/grilled to char
- Maintain healthy BMI; ≥ 150 min/week moderate exercise
- Limit alcohol; avoid tobacco



Living with a Colostomy

- Empty pouch when 1/3 to 1/2 full to prevent leaks
- Change appliance q3–7 days; rinse with warm water (no soaps with oils)
- Inspect stoma & peristomal skin with each change
- Avoid gas-forming foods (beans, broccoli, carbonation) initially
- Chew thoroughly — fibrous foods (popcorn, nuts, corn) can cause blockage
- Resume sex, swimming, exercise once incision heals; report any obstruction
- Connect with United Ostomy Associations of America for peer support



When to Call the Provider

- | | | |
|---------------------------------------|----------------------------------|-----------------------------------|
| ● No stoma output for > 6 hours | ● Persistent diarrhea with chemo | ● Mouth sores limiting eating |
| ● Severe abdominal pain or distention | ● Fever > 100.4°F (neutropenia) | ● Painful red palms/soles |
| ● Stoma turns dusky, purple, or black | ● New numbness/tingling, falls | ● Blood in pouch, urine, or vomit |

9

MEMORY BOOSTERS

Mnemonics & Pattern Recognition

C-O-L-O-N — Risk Factors

- C** Cigarettes (smoking)
- O** Obesity & sedentary life
- L** Low fiber / high red & processed meat diet
- O** Old — age ≥ 45
- N** Nasty family history (FAP, Lynch, IBD)

🚦 Stoma Color Code

- 🟢 **Pink/Red** = perfused, healthy ✅
- 🟡 **Pale/Dusky** = ischemia → notify HCP
- 🔴 **Purple/Black** = NECROSIS → emergency!

↔ Right vs Left Pattern

- R** **RIGHT** is **WRONG** — silent & sneaky: anemia, fatigue, occult/dark stools, vague pain
- L** **LEFT** is **LOUD** — loud & obstructive: bright red blood, pencil stools, cramping, change in bowel habits

❄ "FOLFOX = FOLD up & AVOID COLD"

Oxaliplatin → cold-triggered neuropathy.
Patient should fold up in warm clothes, no cold drinks, no ice, warm gloves to grab from freezer for 3–5 days post-infusion.

📍 "FAP runs in the FAMILY"

Familial Adenomatous Polyposis & Lynch syndrome → near-100% lifetime risk if untreated. **Screen earlier & more often.**

10

NCJMM • CLINICAL JUDGMENT MEASUREMENT MODEL

Putting It Together: An NGN Case



THE SCENARIO

Mr. R., a 62-year-old male, comes to the clinic reporting 3 months of fatigue, occasional dark stools, and a 10-pound unintentional weight loss. His mother had colon cancer at age 55. Vital signs: T 98.6°F, HR 102, BP 108/68, RR 18, SpO₂ 97%. Labs: **Hgb 8.2 g/dL**, Hct 25%, MCV 72 fL (microcytic), ferritin 8 ng/mL, stool guaiac **positive**. Abdomen soft with mild RLQ tenderness; no palpable mass.

1

RECOGNIZE
CUES

What are the relevant findings?

Critical cues:

age 62 + family history of colon cancer + 3 months of fatigue + dark stools (melena) + 10-lb weight loss + tachycardia (HR 102) + microcytic, iron-deficiency anemia (Hgb 8.2, low ferritin) + positive stool guaiac.

2

ANALYZE
CUES

What do these cues tell you?

The pattern of *iron-deficiency anemia + occult/dark GI bleeding + weight loss in a man > 50 with a positive family history* is highly suspicious for

right-sided colorectal cancer

. Tachycardia is a compensatory response to anemia. Right-sided tumors classically bleed slowly and silently, presenting as anemia rather than visible blood.

3

PRIORITIZE
HYPOTHESES

What's most likely & most urgent?

Top hypothesis:

Right-sided colorectal adenocarcinoma with chronic GI blood loss.

Differentials to rule out:

peptic ulcer disease, gastric cancer, IBD, hemorrhoidal bleeding (less likely given pattern).

Most urgent issue is

severe anemia

with hemodynamic strain (HR 102).

4

GENERATE
SOLUTIONS

What interventions should be considered?

Anticipate orders for:

type & cross + possible PRBC transfusion

for symptomatic anemia, IV fluids, NPO if surgery anticipated,

colonoscopy with biopsy

(gold standard), CEA tumor marker, CT of abdomen/pelvis for staging, surgical & oncology consultation, nutrition referral, emotional support for patient & family.

5 TAKE ACTION

What do you do — and in what order?

Priority actions:

1) Establish IV access & obtain T&C; 2) administer PRBC per order while monitoring for transfusion reaction (low back pain, fever, hives, hypotension); 3) keep patient NPO pending colonoscopy; 4) educate on bowel prep; 5) provide emotional support — the diagnosis is unspoken but heavy. Delegate vital signs q15 min × 1 hr post-transfusion to UAP only after stable.

6 EVALUATE OUTCOMES

Did it work?

Expected outcomes:

Hgb rises to ≥ 9 after 1–2 units PRBC; HR decreases to baseline; patient verbalizes understanding of bowel prep & colonoscopy; vital signs remain stable; no signs of transfusion reaction.

Reassessment:

if Hgb fails to rise, assess for ongoing GI blood loss; reorder labs & reconsider need for additional PRBCs and emergent endoscopy.

Diane's NGN NCLEX 2026 Study Series

Colorectal Cancer · GI/Oncology · Aligned with the NCSBN Clinical Judgment Measurement Model (NCJMM)

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