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Medical Diagnosis/Disease: Crohn's disease

NCLEX IV *(8)*: **Physiological Integrity/Physiological Adaptation**

NCLEX IV *(7)*: **Reduction of Risk**

<u>Anatomy and Physiology</u>

<u>Normal Structures</u>

The gastrointestinal (GI) tract is a continuous tube - runs from mouth to anus - responsible for digesting food and absorbing nutrients. It begins with the oral cavity (mouth), where food is chewed and mixed with saliva - travels down the esophagus to the stomach, where gastric acids further break down food, partially digested food moves into the small intestine (duodenum, jejunum, ileum) where most digestion and nutrient absorption occur. Next, it enters the large intestine (or colon), which absorbs water and forms waste. The remaining waste is stored in the rectum and expelled through the anus. **Layers of the GI tract** - Mucosa: innermost layer. Protects, secretes, absorbs, Submucosa: contains blood & lymph vessels. Transports nutrients. Muscularis or muscular layer: smooth muscle fibers arranged in circular & longitudinal groups. Motility
Serosa or serous layer: outer covering. Protection Peritoneum: lines walls of entire abdominal cavity & forms the peritoneal cavity.Two folds of peritoneum: Mesentary (blood & lymph) & Omentum (fat covering for protection).
Gastric Secretions: chemical liquefication of ingested food
Gastrin stimulates secretions of parietal & chief cells
Parietal cells: secrete HCL & intrinsic factor - Chief cells: produce pepsinogen→pepsin→protein digestion. - Mucous neck cells: secrete alkaline mucus to lubricate & protect stomach from self-digestion.
Major Functions of Liver: Bile production & secretion, Carb metabolism, Protein metabolism
Formation of clotting factors, Fat metabolism, Vitamin & mineral storage
Filtration/Detoxification, Blood storage
Liver Anatomy: Lobule: liver's functional units are hepatocytes (primary liver cells) Kupffer Cells: reticuloendothelial cells provide crucial filtering system (part of immune system) Portal vein & hepatic artery supply blood to liver.

<u>Pathophysiology of Disease</u>

Crohns is a chronic inflammatory bowel disease (IBD), affects any part of the GI tract, most commonly terminal ileum and colon—inappropriate immune response, triggered by environmental, genetic, and microbial factors—intestinal inflammation begins with activation of innate and adaptive immune systems, leading to overproduction of pro-inflammatory cytokines (TNF-α, IL-12, IL-23, IFN-γ)——affects all layers of bowel wall, leading to thickening, fibrosis, and strictures—persistent inflammation causes skip lesions, cobblestone mucosa, and creeping fat—complications include strictures, fistulas, abscesses, and malabsorption—chronic inflammation impairs nutrient absorption, leading to weight loss, anemia (B12/iron deficiency), and diarrhea—disease progression leads to bowel obstruction, perforation, or increased risk of colon cancer—treatment targets immune modulation, reducing inflammation via corticosteroids, immunosuppressants, biologics (anti-TNF agents), and lifestyle management including dietary modifications.

<u>Anticipated Diagnostics</u>

<u>Labs</u>

CBC/chem
Stool culture for blood, pus, mucus,
Serum antibody testing

<u>Additional Diagnostics</u>

Double contrast barium swallow
CT/MRI
Colonoscopy or capsule endoscopy

Portal vein: supplies 75% of blood to liver.
Hepatic artery: supplies other 25% as oxygenated blood.
Pancreas Exocrine- functions as part of GI system. Enters duodenum via pancreatic duct to common bile duct
Gall Bladder & Biliary Tract
Gallbladder stores and concentrates bile made in the liver – bile emulsifies fats.

NCLEX II *(3)*: **Health Promotion and Maintenance**

NCLEX IV *(7)*: **Reduction of Risk**

Contributing Risk Factors	Signs and Symptoms	Possible Therapeutic Procedures	Prevention of Complications
-Genetic, high processed foods, low fiber, smoking, NSAID use, stress, age	-Diarrhea -Weight loss from malabsorption -Abdominal pain -Fever -Fatigue	Non-surgical Endoscopic balloon dilation, abscess drainage, enteral nutrition Surgical Resection of diseased segment Strictureplasty	(What are some potential complications associated with this disease process) Hemorrhage, stricutres, perforation, abscesses, fistulas, C. diff infection, intestinal cancer

NCLEX IV *(6)*: **Pharmacological and Psychosocial/Holistic Parenteral Therapies**

NCLEX IV *(5)*: **Basic Care and Comfort**

NCLEX III *(4)*: **Care Needs**

Anticipated Medication Management	Non-Pharmacologic Care Measures	What stressors might a patient with this diagnosis be experiencing?
Biologics, amino salicylates (5 ASA), antimicrobials, corticosteroids, immunomodulators	Bowel rest, control inflammation, combat infection, correct malnutrition	Dietary restrictions Social isolation Chronic pain Unpredictable flares

Client/Family Education

NCLEX I *(1)*: **Safe and Effective Care Environment**

List 3 potential teaching topics/areas	Multidisciplinary Team Involvement (Which other disciplines do you expect to share in the care of this patient)
• Maintain a balanced diet low in residue and the importance of hydration •medication adherence •stress management, smoking cessation, avoid NSAIDs	Gastroenterologist, pharmacologist, nutritionist

Potential Patient Problems (Nursing Diagnoses)

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute pain

Clinical Reasoning: Crohn's/GI bleed, 8/10 pain, abdominal cramping/burning

Goal 1: By the end of my time of care, client will report a decrease in pain score to a 3/10.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes.	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess pain level using a pain scale from 0-10 q2-4h	Administer Morphine IV 4mg
Evaluate the effectiveness of pain relief meds 30 minutes after administration	Educate on additional pain relief measure and apply a heat pack to the abdomen to relieve any additional discomfort/pain for 20 min q2h PRN
Assess BP, HR, and RR q2-4h PRN	Encourage use of relaxation techniques, such as deep breathing (diaphragmatic breathing) or guided imagery PRN per shift
Observe for nonverbal signs of pain (guarding, restlessness, facial grimacing) q4h PRN	Reposition to the fetal position (knees to the chest on their side) to reduce abdominal strain PRN for discomfort
Monitor for worsening symptoms such as flare-ups, during meals	Notify the provider or nurse PRN for worsening symptoms and recommend NPO to promote bowel rest
Monitor for abdominal tenderness, distension, and bowel sounds q4h (complications such as obstruction or perforation)	Notify the provider immediately for severe pain or absent bowel sounds

Goal 2: By the end of my time of care, client will verbalize two alternative measures for managing pain other than opioids, such as heat pack, fetal position, or relaxation techniques.

To Be Completed Before the Simulation

Anticipated Patient Problem: Inadequate nutritional intake

Clinical Reasoning: malabsorption, weight loss, fatigue, low albumin levels

Goal 1: By the end of my time of care, client will show an increase in nutritional intake by evidence of improved prealbumin and albumin levels WNL (3.5-5.5)

Goal 2: By the end of my time of care, client will have an additional protein/nutritional supplement such as ensure protein shake, added to their meal plan.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes.	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Monitor lab values (albumin, prealbumin, electrolytes, iron, B12, blglu) daily	Notify the provider to prescribe vitamin and mineral supplementation if deficiencies are severe
Monitor weight daily	Collaborate with a dietitian to develop a high-calorie, high-protein diet, provide nutritional supplements if weight loss continues.
Evaluate dietary intake and tolerance with every meal	Implement small, frequent meals and modify diet to low-fat, high-protein PRN
Monitor for signs of dehydration (dry mucous membranes, poor skin turgor, hypotension) q4h	Encourage oral fluid intake or administer IV infusion of 0.9 sodium chloride at 150mL/hr
Observe for signs of muscle wasting, weakness and fatigue q4h	Encourage oral supplements or adding an additional protein supplement such as ensure protein shake with meals
Assess psychological distress related to eating difficulties (anxiety, depression, body image concerns) daily	Provide emotional support, offer counseling referral and involve family in meal planning PRN to improve adherence to dietary recommendations

To Be Completed During the Simulation:

Actual Patient Problem: 1 Risk for hypovolemic shock

Clinical Reasoning: GI bleed, lightheaded, dizzy, BP 94/56, RR 26, HR 110

Actual Patient Problem: 2 Acute pain

Clinical Reasoning: post endoscopy 8/10 pain in RLQ, tender, cramping, discomfort

Goal: By the end of my time of care, J.L will demonstrate stable vital signs AEB BP ≥ 90/60 mmHg and HR ≤ 100 bpm Met: ☒ Unmet:☐

Goal: During my time of care, J.L will exhibit no signs of worsening hypovolemia AEB a RR WNL (12-20) and no signs of fever.
Met: ☐ Unmet:☒

Goal: By the end of my time of care, client will report a decrease in pain score to a 3/10. Met: ☒ Unmet:☐

Goal: By the end of my time of care, client will verbalize two alternative measures for managing pain other than opioids, such as heat pack, fetal position, or relaxation techniques.
Met: ☐ Unmet:☐

Additional Patient Problems:

3 Stress r/t job , 4 impaired nutrition

Below will be your notes, add more lines as needed. **Relevant Assessments:** Indicate pertinent assessment findings. **Multidisciplinary Team Intervention:** What interventions were done in response to your abnormal assessments? **Reassessment/Evaluation:** What was your patient's response to the intervention?

Pt Prob	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
1	1500	Lightheaded, dizzy, "I feel like I'm going to faint" pale skin	1505	Provided a cold cloth, obtained vital signs, administered 02 therapy 2L	1510	BP 94/56 RR 26 02 94%, HR 110, reports feeling worse
1	1510	BP 94/56 RR 26 02 94%, T 37, HR 110, reports feeling worse	1515	Lower the head of the bed and elevate the feet to improve circulation, administered 2 units of packed RBCs	1530	Reports feeling chilly, face flushed, T 38.8C, HR 96bpm, RR22, BP 103/60, 02 95% reports headache, body aches
1	1530	Reports feeling chilly, face flushed, T 38.8C, HR 96bpm, RR22, BP 103/60, reports headache, body aches	1530	Stopped the blood transfusion, educated on the symptoms of transfusion reaction, notified provider	1645	administered 0.9% NaCl IV 30mL/hr, T37, HR 104, RR 22, BP 98/60, consult Dr.Marsh for endoscopy to locate blood in GI tract,
2	0900	pain 8/10 in RLQ, tender abdomen, "cramping and discomfort"	0915	Administered Morphine 4mg IV, 1mg/min IV bolus	0930	Pain 2-3/10, no cramping, "I feel so much better"
3	1100	Experiencing stress working as a stockbroker, reports having up to 5 drinks at night	1105	Provided an open ended-statement "tell me more about the stress you are feeling" along with active listening, provided alternatives to dealing	1200	Receptive to the information, "having a plan at home will really help me decrease stress" "Maybe I can take walks in the park in the afternoons"

				with stress such as reading a book		
4	1115	Reports eating and drinking dairy products, a couple cups of wine,	1115	Recommended foods that are high in protein, provided printed information as a reference	1200	Receptive to the information, “having a plan at home will really help me eat better” “Maybe I could make smarter choices in the cafeteria”

ATI Virtual Clinical Questions and Reflection:

1) Identify two members of the healthcare team collaborating in the care of this patient:
    a. **__Esther, RN_____**
    b. **__Dr. March_____**
2) What were three steps the nursing team demonstrated that promoted patient safety?
    a. **_Double check ID and blood type to prevent a transfusion reaction_____**
    b. **__Immediately stopped the blood transfusion due to a reaction and notified the provider.__**
    c. **__Advised to avoid the use of ibuprofen to prevent GI bleeding_____**
3) Do you feel the nurse and medical team utilized therapeutic communication techniques when interacting with individuals, families, and health team members of all cultural backgrounds?
    a. If **yes**, describe: **_Yes, the nurse implemented therapeutic communication techniques such as active listening and proving reassurance. Nurse Esther was able to address her stress problems at home and provided alternative management techniques rather than drinking a glass of wine**.
    b. If **no**, describe: _____
    _____

Reflection

1) Go back to your Preconference Template:
    a. Indicate (circle, star, highlight, etc.) the components of your preconference template that you saw applied to the care of this patient.
2) What was the priority nursing problem? Provide rationale.

____Risk for hypovolemic shock due to the loss of blood and evidenced by BP 94/56, RR 26 HR110.

3) Review your Patient Problem Form: Did you see many of your anticipated nursing assessments and interventions used?
    a. Were there interventions you included that *were not* used in the scenario that could help this patient?

i. If **yes**, describe: **__Encourage supplemental protein intake such as ensure protein shake. _Provide alternative pain management techniques other than opioids such as heat pack to decrease discomfort and fetal positioning._____ __**

ii. If **no**, describe:

_____

_____

4) After completing the scenario, what is your patient at risk for developing?

   a. Hypovolemic shock

   b. Why? ___**Due to the blood loss._____**

5) What was your biggest "take-away" from participating in the care of this patient? How did this impact your nursing practice?

   ___My biggest take away from caring for this patient is closely monitoring for complications whether they were from the GI bleed, blood transfusion or the endoscopy. Taking quick action during complications can save patients from further harm and even death.

   _____

   _____