Student Name: Olivia Morales Medical Diagnosis/Disease: Crohn's Disease

NCLEX IV *(8)*: **Physiological Integrity/Physiological Adaptation** **NCLEX IV** *(7)*: **Reduction of Risk**

Anatomy and Physiology

Normal Structures

-GI tract has its own nervous system called the **enteric nervous system**. It regulates motility and secretion for the entire GI tract. It has two networks: the **Meissner plexus and the Auerbach plexus**.
-**Meissner plexus** is in the submucosa and controls secretion and is part of many different sensory functions.
-**Auerbach plexus** is between the muscle layers and is the major nerve supply for the GI tract. It also controls GI movements.
-Venous blood from the GI tracts empties into the **portal vein** which perfuses the liver. The liver then cleans the bacteria out of the blood.
-**Ingestion** is the intake of food.
-**Ghrelin** is released by the stomach and is appetite stimulation.
-**Leptin** is the hormone for appetite suppression.
-**Deglutition** is swallowing and is the mechanical portion of indigestion.
-The **mouth** has the lips and buccal cavity. It also has 3 salivary glands: parotid, submaxillary, and sublingual.
-The **pharynx** is a muscular tube with 3 divisions: the nasopharynx, oropharynx, and laryngeal.
-**Epiglottis:** closing over larynx to prevent food from being aspirated.
-**Esophagus:** hollow muscular tube that moves food from pharynx to stomach.
-**Stomach:** usually J shaped. Contains gastric fluid and mucus. Has 3 main parts: the fundus, body, and antrum. Main functions are to store food, mix food with gastric secretions, and empty contents into the small intestine.
-Stomach absorbs small amounts of water, electrolytes, alcohol, and certain drugs.
-Stomach wall has 4 layers: **serous, muscular, circular, and oblique.**
-Both serous and muscular are outer layers, circular is the middle layer, and oblique is inner.
-In the fundus there are chief cells that secrete pepsinogen and parietal cells that secrete hydrochloric acid, water, and intrinsic factor.
-**Small intestine**: main function is digestion and absorption of nutrients into the bloodstream.
-It is about 23 feet long, and has three parts: the duodenum, jejunum, and ileum.
-**Villi:** functional unit of the small intestine. They contain epithelial cells that produce enzymes.
-These enzymes chemically break down nutrients for our body to absorb them.
-Digestion: physical and chemical breakdown of food.
-Chyme: food and gastric secretions mixed.
-The **large intestine** is for water and electrolyte absorption. It also forms feces and holds fecal matter until defecation.
-**Liver:** largest internal organ in the body.
-**Lobules:** functional unit of the liver.

Pathophysiology of Disease

-Crohn's disease is a classification of inflammatory bowel disease.
-Inflammatory bowel disease is a chronic inflammation of the GI tract.
-IBD is an autoimmune disease involving an immune reaction to a person's own intestinal tract.
-Crohn's disease is a chronic and progressive inflammatory bowel condition.
-The cause of Crohn's is multifactorial including genetic, environmental, gut microbiome triggers, and immunologic abnormalities.
- It can involve any segment of the Gi tract from the mouth to the anus. It most often involves the distal ileum and proximal colon.
-Diseased bowel segments can be next to normal bowel areas resulting in "skip" lesions.
-It has periods of remission and periods of exacerbation.
-Inflammation from Crohn's disease involves all layers of the bowel wall. Since it can go through all the layers it can lead to microscopic leaks that allow bowel contents to enter the peritoneal cavity.
-Ulcerations are typically deep and longitudinal.
-Strictures in the areas of inflammation can cause bowel obstruction.
-Fistulas are common in active Crohn's disease.
-Often begins in teenage years and follows into adulthood.

Anticipated Diagnostics

Labs

-CBC
-Erythrocyte sedimentation rate
-C reactive protein
-Comprehensive metabolic panel
-Serum albumin
-Fecal; calprotectin

Additional Diagnostics

-Stool cultures
-Double contrast barium enema
-Small bowel series
-Transabdominal ultrasound
-CT
-MRI
-Colonoscopy
-Biopsy
-Capsule endoscopy
-Endoscopy

-The liver carries out phagocytic activity to remove bacteria and toxins from the blood.
-75% of blood supply to the liver comes from the portal vein, which carries absorbed products of digestion.
-**Pancreas:** helps with production and release of enzymes.
-Gallbladder: holds bile.

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

Contributing Risk Factors
-Smoking
-Oral contraceptive use
-Family history of Crohn's
-Diets high in animal protein, sugars, oils, fish, and dietary fat.
-Genetic mutations
-NSAID usage
-Low vitamin D
-Stress
-Lack of activity
-Obesity
-Alcohol consumption

Signs and Symptoms
-Diarrhea
-Abdominal cramping
-Abdominal pain
-Weight loss
-Fatigue
-Fever
-Chills
-Abdominal tenderness/guarding
-Fistulas/fissures

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

Possible Therapeutic Procedures
Non-surgical
-Nutritional therapy
-Regular monitoring with endoscopy
-Biologic therapies

Surgical
-Resection of diseased segments
-Strictureplasty

Prevention of Complications
(What are some potential complications associated with this disease process)
-Malnutrition
-Fistulas, abscesses, peritonitis
-Strictures
-Bowel obstruction
-Cancer
-GI hemorrhage
-Perforation
-Toxic megacolon
-Multiple sclerosis
-Short bowel syndrome

NCLEX IV *(6)*: **Pharmacological and Parenteral Therapies**

Anticipated Medication Management
-Anti-inflammatory medications
-Corticosteroids
-Immunomodulators
-Amino salicylates
-Antimicrobials

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

Non-Pharmacologic Care Measures
-Dietary modifications
-Avoiding diets full of animal protein, sugars, oils, fish, and dietary fat.
-Managing stress through relaxation
-Nutritional support.
-Adequate hydration.

NCLEX III *(4)*: **Psychosocial/Holistic Care Needs**

What stressors might a patient with this diagnosis be experiencing?
-Pain
-Risk of job loss from prolonged hospitalization
-Anxiety
-Body image issues

Client/Family Education

List 3 potential teaching topics/areas
•Importance of changing diet to remove substances such as animal protein, sugars, oils, fish, and dietary fat.

• Importance of smoking cessation to prevent damage to the stomach and intestinal lining.

• Importance of managing stress to avoid flare ups and the worsening of symptoms.

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

Multidisciplinary Team Involvement
(Which other disciplines do you expect to share in the care of this patient)
Nurses, gastroenterologists, surgeons, radiologists, nutritionist, anesthesiologists, pathologist, endoscopists, dieticians, and psychologists.

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute Pain

Clinical Reasoning: Crohn's disease, irritated lining of the digestive system, inflammation of gastrointestinal system, abdominal pain, blockages, strictures, and fistulas.

Goal 1: Patient's pain rating will be a 5/10 or below on the numeric pain scale during my time of care.

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?
Palpate abdomen for abdominal tenderness and pain q2hrs.	Administer hot/cold packs on abdomen q2hrs.
Assess patients pain rating on the numeric scale qhr.	Administer non-NSAID analgesics such as opioids q6hrs as needed.
Assess patient for nonverbal cues of pain such as facial grimacing, grunting, or guarding q2hrs.	Implement nonmedicinal pain management such as distraction and relaxation q2hrs.
Assess patient's number of respirations, respiratory effort, and respiration depth before and after administering pain medications.	Administer naloxone immediately if RR is less than 12 respirations a minute after opioid administration.
Monitor patients' vital signs for changes in heart rate and blood pressure q4hrs.	Preform a pain assessment focusing on severity, location, onset, duration, and character q4hrs.
Reassess patient's pain one hour after administration q med administration.	Discuss with provider about altering dose or medication given q2hrs.

Goal 2: Patient will be able to rest comfortably shown by a RR of 12-20 during my time of care.

Anticipated Patient Problem: Risk for dehydration.

Clinical Reasoning: Crohn's disease, active loss of fluids through diarrhea, possible GI fistula.

Goal 1: Patient's urinary output will be at least 30 mL/hour during my time of care.

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 patients I & O's q2hrs.	Encourage oral fluid intake of clear liquids q2hrs.
Assess patients skin turgor and mucous membranes q2hrs.	Encourage/assist patient with frequent mouth care q2hrs.
Monitor patients' vital signs especially blood pressure q4hrs.	Administer continuous IV fluids q shift as needed.
Monitor urine output for amount, color, and smell q2hrs.	Include patient in the monitoring of their I & O's q shift.
Assess patient for changes in mental status or LOC q2hrs.	Provide electrolyte drinks or replacement therapy with q meal.
Monitor patient's BUN and creatinine q shift.	Offer popsicles or ice chips as alternative hydration options q 2hrs.

Goal 2: Patient's skin turgor will be elastic during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem: Acute Pain.

Clinical Reasoning:

Crohn's disease, gastritis, GI bleed.

Goal: Pt's pain will be a 3/10 or lower by the end of my care.
Met: ☐ Unmet:☐

Goal: Pt. will be able to rest comfortably with a RR of 12-20 during my time of care.
Met: ☐ Unmet:☐

Actual Patient Problem: Deficient knowledge.

Clinical Reasoning:

Insufficient diet, frequent use of NSAIDs such as ibuprofen, and frequent use of alcohol for stress management. All things that increase inflammation of GI tract.

Goal: Pt. will be able to provide a new idea for stress management during my time of care.
Met: ☐ Unmet:☐

Goal: Pt. will provide 2 examples in her diet to decrease during my time of care.
Met: ☐ Unmet:☐

Additional Patient Problems: Difficulty coping, dizziness, fatigue.

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?

Patient Problem	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
Acute pain.	0800	Pain rated a 6/10 on top of stomach. "Stress makes it worse" Patient stated she commonly takes Ibuprofen.	1600	Educated patient on irritation to Gi tract that can be caused by use of Ibuprofen and other similar medications.	1600	Pt. stated she was going to read labels carefully and do her best to stay away from Ibuprofen in the future.
Acute pain	0800	Admitted into ED for dizziness and abdominal pain. BP 100/60. "I feel like I am going to faint and throw up."	1300	Given 2 units of packed RBC's. Applied O2 through NC and cold cloth to forehead.	1400	Transfusion stopped. Chills, headache, and body ache worsening.

Acute Pain	1600	Tender abdomen, cramping, 8/10 pain, grimacing, grunting.	1600	Administered 4mg IV morphine.	1630	Pain rated a 2/3. “I feel so much better” No more abdominal cramping.
Deficient	1600	Pt. verbalized she drinks in the evening, sometimes up to 5 drinks some evenings due to stressful job. Pt. stated, “I’m working all the time, I have no support system”		Discussed ideas for alternative stress management such as music, yoga, or exercise.		Patient accepted printed information on stress management. Pt. verbalized she was going to try taking walks in the park on the afternoons.
Deficient knowledge.	1600	Eats small inconsistent meals consisting of very minimal amounts of protein/nutrients.		Encouraged to increase amount of protein in diet and avoid irritants like caffeine and high fiber foods that may obstruct stoma.		Pt. verbalized she planned on trying our suggestions for diet modifications. Such as packing healthier lunches from home or making 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. Nurse Esther
    b. Nurse Kari from the ED.
2) What were three steps the nursing team demonstrated that promoted patient safety?
    a. Nurse Kari gave a full report to Nurse Esther and brought Ms. Leiberman up to the med-surg unit herself. This made her transfer as safe as possible as there were ample opportunities for the nurses to go over the patient together, ask questions, and for the patient to ask questions. They were able to look at her ostomy bag together and there was no risk of miscommunication in her transfer.
    b. Ms. Leiberman was at risk for hypovolemic shock, to promote circulation Nurse Esther lowered her HOB and raised her feet. This promoted good blood flow and circulation to decrease the risk of shock, while they worked on getting her blood transfusion ready.
    c. Before giving Ms. Leiberman, her blood transfusion Nurse Bonnie and Nurse Esther double checked her identity by having her state her name and DOB. They also double checked the blood bag with the blood band/identification band on the patient's wrist. This minimized any risk of giving her the wrong blood or giving blood to the wrong patient.
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, they used therapeutic communication because they frequently asked Ms. Leiberman if she had any questions, they involved her in her transfer, they kept eye contact with her, provided physical touch through hand holding when appropriate, and frequently validated her feelings of pain and discomfort.
    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.

    Acute pain: she came in for abdominal pain/cramping and was in pain for a long time during her stay. She had a GI bleed and a history of Crohn's disease which are both very painful conditions. She also had a reaction to her blood transfusion which led to her having headache, chills, and fever.
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: Yes, many of my interventions for acute pain were used in this scenario, as they gave her medications for pain, monitored her VS frequently, and assessed her pain frequently. For my other patient problem, I did dehydration, while they were giving her IV fluids they didn't seem to be as concerned with this as I thought they would be. I think they could've used some of my other interventions such as distraction for pain or electrolytes to prevent any dehydration, but overall it was very similar. I also think they could have done some monitoring with her I & O's to make sure she wasn't having any issues with dehydration.

ii. If **no**, describe:

_____

_____

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

   a. My patient is at risk for developing more GI bleeds which could lead to hemorrhaging or shock.

   b. Why? If Ms. Leiberman doesn't make the necessary changed to her lifestyle and diet, she is going to keep increasing her risk for more GI bleeds. Eventually she could have a large and spontaneous GI bleed that could lead her to hemorrhage. If she is hemorrhaging, she is losing too much blood which could put her into shock. Overall, she is at a high risk for developing more GI bleeds leading to more abdominal pain, bleeding, and complications.

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 this scenario is just how important education is for patients. A lot of what Ms. Leiberman was doing in her daily life was causing flare ups in her Crohn's disease which led her to a GI bleed. If she would've been educated earlier on, she may not have ended up hospitalized. But since she was drinking so much, taking ibuprofen, and not managing her stress properly she ended up in the hospital with a GI bleed. It taught me that no matter what nurse you become or where you work, education is always important. Even if there may seem to be bigger problems at hand such as pain or bleeding, education is still important and needs to be addressed before the time of care with your patient is done. Just like basic care, education never goes away and should always be a priority before a patient is discharged from the hospital.