

N321 Care Plan 1

Lakeview College of Nursing

Janet Song

Demographics (3 points)

Date of Admission 1/27/2021	Patient Initials MS	Age 65 years old	Gender Female
Race/Ethnicity Caucasian	Occupation Retired LPN	Marital Status Divorced	Allergies NKDA
Code Status Full	Height 5'2"	Weight 270 lbs	

Medical History (5 Points)

Past Medical History: Diabetes mellitus, Hyperlipidemia, Gout, Anemia, Obstructive sleep apnea syndrome, Hypertensive, Congestive heart failure, Osteoarthritis, Osteopenia,

Chronic kidney disease stage 3A, heart failure with reduced ejection fraction (10/2020)

Past Surgical History: Colonoscopy (2015), Insertion of renal artery stent (Left Kidney x2,

Right Kidney x1), Coronary angioplasty, Extraction of cataract (Bilateral), Cardiac

Catheterization, CABG – 5 vessel, Hernia repair

Family History: No known family history

Social History (tobacco/alcohol/drugs): No alcohol intake & No drug use, Former smoker for 6 years

Assistive Devices: cane, walker

Living Situation: Live alone

Education Level: 2 Year College

Admission Assessment

Chief Complaint (2 points): Patient admitted after scheduled left total knee replacement surgery.

History of present Illness (10 points): The patient is a 65-year-old female. She is admitted after the left total knee replacement surgery. The patient has a history of degenerative

osteoarthritis. The patient also has diabetes, osteopenia, hypertension, anemia, hypokalemia, and vitamin D deficiency. After surgery, she experienced pain in her left knee, and the pain level was 8 out of 10. The patient has a bruise on the leg and has a wound on the surgery site. The patient has been experiencing constipation since surgery day. Pain medication has been given to reduce the pain.

Primary Diagnosis

Primary Diagnosis on Admission (2 points):total left knee replacement due to degenerative osteoarthritis

Secondary Diagnosis (if applicable):

Pathophysiology of the Disease, APA format (20 points):

The patient was admitted to the recovery room after the left total knee replacement. Knee replacement held due to degenerative osteoarthritis. Usually, osteoarthritis is caused by excessive weight on the knees and hips. It can be diagnosed by X-ray. There are several treatment types for osteoarthritis, such as NSAIDs, COX-2 inhibitors, glucosamine chondroitin, cortisone injections, acetaminophen, and joint replacement. Osteoarthritis commonly causes chronic pain. Capriotti (2020) states, “unlike acute pain, chronic pain is debilitating and does not serve any biological or protective function; pain initially occurred because of a pathological condition”. Indeed, the patient is experiencing severe pain after the surgery and planning to have narcotic medication such as morphine. Morphine was given to the patient on 1/26/2021 through IV solution with a 22-gauge needle.

The lab test such as CBC, urinalysis, chemicals, PT, INR test has been done before the surgery. Moreover, there is no lab data after surgery. However, most of the lab data held before

the surgery show that patient does not have a significant infection or blood clots. For this patient, post-operative care is important. According to Capriotti (2020), “knee need to be dressed in a compression bandage, and cold pack may be applied to reduce postoperative swelling and bleeding. It is also encouraged to patient active flexion of the foot every hour”. Aquacel (SMTL, 2020), a primary wound dressing made from sodium carboxymethylcellulose, was used for the surgery site in the patient's room. According to SMTL Dressing Databook (2020), it says “absorbs and interacts with wound exudate to form a soft, hydrophilic, gas-permeable gel that traps bacteria ... and providing a micro-environment that is believed to facilitate healing”. Bleeding was also inspected, so the patient used an ice pack on her knee to reduce the swelling. A wound suction drain may be used for the joint's fluid accumulation, but the patient did not receive a suction drain.

A continuous passive motion (CPM) device was prescribed to promote a range of motion for the patient. It is also helpful for patient's circulation, healing, and preventing scar tissue from forming in the knee. Hinkle (2018) states that CPM device is usually used immediately after surgery. It says, “degree of flexion and extension of the joint and the cycle rate are prescribed by surgeon, but it is often the responsibility of the nurse to maintain and monitoring” (Hinkle, 2018).

Pathophysiology References (2) (APA):

Capriotti, T. M. (2020). *PATHOPHYSIOLOGY: Introductory concepts and clinical perspectives*.

PHILADELPHIA: F A DAVIS.

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

SMTL Dressings Datacard. (2020). Retrieved February 02, 2021, from <http://www.dressings.org/Dressings/aquacel.html#:~:text=Aquacel%20is%20a%20primary%20wound,application%20to%20larger%20open%20wounds.>

Laboratory Data (15 points)

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.20-5.40 x10 ⁶ /UL	4.16		Decreased RBC level associated with anemia (Hinkle, 2018)
Hgb	12.0-16.0 g/dL	13.6		
Hct	37.0-47.0 %	42.1		
Platelets	150-400 x10 ³ /UL	203		
WBC	4.3-11.0 x10 ³ /UL	8.9		
Neutrophils	37.0-85.0 %	69.1		
Lymphocytes	20.0-45.0 %	18.1		Decreased lymphocytes level may associate acute malnourished as a result of stress (Hinkle, 2018)
Monocytes	0.0-15.0 %	6.1		
Eosinophils	0.0-6.0 %	6.3		Elevated eosinophils level is commonly associated with allergic reaction (Hinkle, 2018)
Bands	0.0-3.0%			

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	135-145 mEq/L	140		
K+	3.5-5.5 mEq/L	3.8		

Cl-	95-100 mEq/L	103		
CO2	23-31 mEq/L	25		
Glucose	70-110 mg/dL	106		
BUN	8-25 mg/dL	17		
Creatinine	0.70-1.50 mg/dL	1.23		
Albumin	3.5-5.0 g/dL	4.0		
Calcium	8.4-10.3 mg/dL	9.6		
Mag	1.5-2.6 mg/dL			
Phosphate	2.5-4.5 mg/dL			
Bilirubin	0.2-1.2 mg/dL	0.5		
Alk Phos	40-150 U/L	73		
AST	16-40 U/L	21		
ALT	7-52 U/L	19		
Amylase	23-85 u/L			
Lipase	12-70 u/L			
Lactic Acid	0.5-1 mmol/L			

Other Tests **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.90-1.10	1.00		

PT	12.2-14.3 SEC	13.6		
PTT	23-34 SEC	31		
D-Dimer	<0.5			
BNP	<100 pg/mL			
HDL	>60 mg/dL			
LDL	<100 mg/dL			
Cholesterol	<200 mg/dL			
Triglycerides	<150 mg/dL			
Hgb A1c	<7%			
TSH	0.4-4.0 mu/L			

Urinalysis **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow	Yellow		
pH	5.5-7.5	6.00		
Specific Gravity	1.015-1.025	1.025		
Glucose	Negative	Negative		
Protein	Negative	Negative		
Ketones	Negative	Negative		
WBC	0-4			
RBC	0-2			
Leukoesterase	Negative	Negative		

Cultures **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative			
Blood Culture	Negative			
Sputum Culture	Negative			
Stool Culture	Negative			

Lab Correlations Reference (1) (APA):

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Fluoroscopy

Diagnostic Test Correlation (5 points):

Fluoroscopy performed in the operating room to see the left total knee. Images were required during the procedure and fluoroscopy used to assist with invasive procedures (Hinkle, 2018).

Result: Through the fluoroscopy, it was able to check the hardware and bony elements appear in good position and alignment.

Diagnostic Test Reference (1) (APA):

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

**Current Medications (10 points, 1 point per completed med)
*10 different medications must be completed***

Home Medications (5 required)

Brand/ Generic	Vitamin C/ Ascorbic Acid	Neurontin/ Gabapentin	Bayer/ Aspirin	Carospir/ Spironolactone	Lopurin/ Allopurinol
Dose	500 mg	300 mg	81 mg	25 mg	300 mg
Frequenc y	1x Daily	3x Daily	1x Daily	1x Daily	1x Daily
Route	Oral	Oral	Oral	Oral	Oral
Classifica tion	Suppleme nts	Anticonvul sant	NSAID(anti- inflammatory, antiplatelet, antipyretic, nonopioid analgesic)	Diuretic	Antigout
Mechanis m of Action	Through an energy- dependent process that has two mechanis ms - simple diffusion and active transport	Exact MOA is unknow, but GABA inhibits the rapid firing of neurons associated with seizures	Blocks the activity of cyclooxygenas e	Spironolactone competes with aldosterone to prevent sodium and water reabsorption and causing the excretion	Inhibits uric acid production by inhibiting xanthine oxidase
Reason Client Taking	To get daily recommen ded vitamin C	To treat partial seizure	To reduce the risk of myocardial infarction	To treat edema	To treat gout
Contrain	Diabetic	Hypersensi	Active	Acute renal	Hypersensitivit

<p>Contraindications (2)</p>	<p>patients should take vitamin C supplements with care as it raises blood sugar levels. Avoid taking supplements immediately before or following angioplasty.</p>	<p>activity of gabapentin (Only one contraindication mentioned on the book)</p>	<p>bleeding or coagulation disorders, Current of recent GI bleed or ulcers</p>	<p>insufficiency, Addison's disease</p>	<p>Contraindication to allopurinol or its components (Only one contraindication mentioned on the book)</p>
<p>Side Effects/Adverse Reactions (2)</p>	<p>Diarrhea, Nausea, Vomiting</p>	<p>Hypoglycemia, Hepatitis, Suicidal ideation</p>	<p>GI bleeding, Leukopenia, Angioedema</p>	<p>Encephalopathy, Hypotension, Gastric bleeding</p>	<p>Hepatic necrosis, Bone marrow depression, Thrombocytopenia</p>
<p>Nursing Considerations (2)</p>	<p>Administer vitamin C solution by itself because it is incompatible with many drugs. Take precautions to protect vitamin solution from exposure to air and</p>	<p>The capsules may be opened and mixed with applesauce or water before administration, Give drug at least 2 hours after an antacid</p>	<p>Do not crush timed-release tablets unless directed, Advice patient to take aspirin with food or after meal to prevent GI upset</p>	<p>Evaluate potassium level 1 week after the therapy begin, Monitor renal impairment</p>	<p>Obtain baseline CBC and uric acid level, and liver function before and during the therapy, Maintain fluid intake and output 2L daily</p>

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Hospital Medications (5 required)

Brand/ Generic	Norco /Hydrocodone- Acetaminophe n	Pletal /CilostazoL	Pantoloc/ Pantoprazole sodium	Coreg/ Carvedilol	Colax/ Docusate sodium
Dose	325 mg	100 mg	40 mg	25 mg	100 mg
Frequen cy	Every 4h	2x Daily	1x Daily	2x Daily	2x Daily
Route	Oral	Oral	Oral	Oral	Oral
Classific ation	Opioid analgesic	Antiplatelet	Antiulcer	Antihypertens ive	Laxative
Mechani sm of Action	Binds to and activates opioid receptors at sites in the periaqueductal and periventricular gray matter	Increases cAMP in platelets and blood vessels, which inhibits platelet aggregation and causes vasodilation	Interferes with gastric acid secretion	Reduces cardiac output and tachycardia, causes vasodilation	Decreasi ng surface tension between oil and water in feces
Reason Client Taking	To relieve pain	To inhibit platelet aggregation	Manage heartburn and GERD	To treat hypertension	To treat constipat ion

Contraindications (2)	Hypersensitivity to hydrocodone bitartrate, Significant respiratory depression	Heart failure, Hypersensitivity to cilostazol or its components	Hypersensitivity to pantoprazole , Concurrent therapy with rilpivirine-containing products	Severe hepatic impairment, Asthma or related bronchospastic conditions	Fecal impaction, Hypersensitivity to docusate salts or their components
Side Effects/Adverse Reactions (2)	Seizure, Hypotension, Respiratory depression	Cerebral hemorrhage, Hypotension, Tachycardia, Thrombosis	Hepatic failure, Leukopenia, Anaphylaxis, Stevens-Johnson syndrome	Angina, AV block, Hypoglycemia , Renal insufficiency	Dizziness , Palpitation, Abdominal cramps
Nursing Considerations (2)	Be aware that hydrocodone increases the risk of abuse, addiction, and misuse, Should not be given to women during pregnancy	Monitor vital signs and cardiovascular status, Monitor blood glucose level to detect hyperglycemia	Administer delayed-release oral suspension 30 min before a meal mixed in apple juice or applesauce, Do not give pantoprazole within 4 weeks of testing for Helicobacter pylori, it may lead to false-negative results	Caution in patients with peripheral vascular, it may aggravate symptom, Monitor patient's glucose level	Excessive use of docusate to cause dependence on laxatives for bowel movement, Assess for laxative abuse syndrome

Medications Reference (1) (APA):

Abdullah, M. (2020, November 30). Vitamin C (Ascorbic Acid). Retrieved February 01, 2021, from <https://www.ncbi.nlm.nih.gov/books/NBK499877/#:~:text=Vitamin%20C%20supplementation%20is%20contraindicated,sickle%20cell%20disease%2C%20and%20hemochromatosis.>

Loebl, S. (2020). *2020 Nurse's drug handbook*. Burlington, MA: Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

<p>GENERAL (1 point): Alertness: alert Orientation: oriented to place, person, time and situation Distress: no noticeable distress Overall appearance: well-groomed</p>	
<p>INTEGUMENTARY (2 points): Skin color: pink Character: dry Temperature: warm Turgor: Intact Rashes: No rashes Bruises: Some bruise on the abdomen, and left legs Wounds: On the left knee and side of the left foot Braden Score: 19 Drains present: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Type: Aquacel blood drainage on the left knee</p>	
<p>HEENT (1 point): Head/Neck: No deviation, no lumps Ears: No lesions, redness, no drainage Eyes: Eyelids intact, sclera white, PERRLA noted Nose: Septum is midline, symmetrical, no lesions Teeth: Teeth are intact, Oral mucosa pink and no lesions</p>	
<p>CARDIOVASCULAR (2 points): Heart sounds: S1, S1 noted, No gallops, murmurs, rubs, No S3 and S4 Cardiac rhythm (if applicable): Peripheral Pulses: 2+ bilaterally, palpable Capillary refill: less than 3 seconds Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Location of Edema: Lower extremities</p>	
<p>RESPIRATORY (2 points): Accessory muscle use: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Breath Sounds: Location, character : Clear, nonlabored breathing sound, chest</p>	

<p>expand equally</p>	
<p>GASTROINTESTINAL (2 points): Diet at home: Regular diet Current Diet: Regular diet Height: 5'2" Weight: 170 lbs Auscultation Bowel sounds: Active but not loud bowel sounds in all 4 quadrants Last BM: 1/25/2021 Palpation: Pain, Mass etc.: No pain, No mass detected Inspection: Round Abdomen Distention: No distension Incisions: No incision Scars: No scars Drains: No drains Wounds: several bruise on the abdomen due to insulin shot Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	
<p>GENITOURINARY (2 Points): Color: Yellow Character: Clear Quantity of urine: 300 mL Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Normal appearing female external genitals Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: Size:</p>	
<p>MUSCULOSKELETAL (2 points): Neurovascular status: Patient was Alert and oriented ROM: Active range of motion except left lower extremities Supportive devices: Cane or walkers Strength: Equal bilaterally in upper extremities, weak in left lower extremities ADL Assistance: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Risk: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Score: 95 Activity/Mobility Status: Need assistance for bathing, standing Independent (up ad lib) <input type="checkbox"/> Needs assistance with equipment <input checked="" type="checkbox"/> Needs support to stand and walk <input checked="" type="checkbox"/></p>	
<p>NEUROLOGICAL (2 points):</p>	

<p>MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> if no - Legs <input checked="" type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Oriented x4 Mental Status: Competent Speech: Communicates appropriately Sensory: Intact LOC: Alert</p>	
<p>PSYCHOSOCIAL/CULTURAL (2 points): Coping method(s): She used to go to church before she came to hospital Developmental level: No deficit noted Religion & what it means to pt.: Christian, She likes to talk to people at church. Personal/Family Data (Think about home environment, family structure, and available family support): She has sister. Her sister will assist her when she gets home.</p>	

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0830	94	110/46 Sitting Left Arm	18	97.5 Oral	92% Room air
1120	81	134/49 Sitting Left Arm	18	95.5 Oral	92% Room Air

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0830	1-10	L lower extremities	8	Throbbing, Aching	Pain medication - Norco
1120	1-10	L lower extremities	6	Throbbing, Aching	Patient will have another medication

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
<p>Size of IV: 22 gauge Location of IV: Right back of the hand Date on IV: 1/27/21</p>	Saline Lock

<p>Patency of IV: Patent Signs of erythema, drainage, etc.: No erythema, drainage, swelling, and tenderness IV dressing assessment: Dry and intact</p>	
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Intake and Output (2 points)

Intake (in mL)	Output (in mL)
960 mL	300 mL (urine)

Nursing Care

Summary of Care (2 points)

Overview of care: Patient was admitted on 1/27/21 after the complete knee surgery.

After practicing health assessment, patient had bath/bed and oral care.

Procedures/testing done: Patient had a CBC, urinalysis, chemical test before the surgery. Fluoroscopy has done during the knee surgery.

Complaints/Issues: Patient having constipation and pain on the left knee.

Vital signs (stable/unstable): Stable

Tolerating diet, activity, etc.: Patient is having regular diet in the hospital. Patient need assistant for bathing and toileting due to the lower extremities pain. Patient is using CPM(continuous passive motion) machine twice a day to help the range of motion of the knee.

Physician notifications: Primary care provider notice that the surgery was finished well, and patient was moved to recovery room in stable condition.

Future plans for patient: Patient will have anti-inflammatory medicine to decrease her pain on the knee. If the inflammation is decreased, her pain will go fast. Patient need to work on for the range of motion.

Discharge Planning (2 points)

Discharge location: Patient will discharge home with her sister.

Home health needs (if applicable): Resume the home medication but patient need to decrease dose of insulin.

Equipment needs (if applicable):

Follow up plan: Monitor the patient’s pain level, check the wound recovery and constipation. Monitor the acute check for the diabetes. Patient may need to continue physical therapy on outpatient basis.

Education needs:

Range of motion education on the lower extremities.

Patient may need dietary changes due to diabetes.

Educate the patient the dosage of pain medication and side effect.

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis <ul style="list-style-type: none"> Include full nursing diagnosis with “related to” and “as evidenced by” components 	Rational <ul style="list-style-type: none"> Explain why the nursing diagnosis was chosen 	Intervention (2 per dx)	Evaluation <ul style="list-style-type: none"> How did the patient/family respond to the nurse’s actions? Client response, status of goals and outcomes, modifications to plan.
1. Impaired physical mobility related to knee replacement surgery as evidenced by difficult to move the	Patient couldn’t move her left lower extremities due to surgery.	1. Give the medication before the activities. 2. Perform a range of motion exercise to give the mobility.	The patient is willing to little exercise to give the mobility on her legs. Goals: Patient will be able to move her legs by herself little by little and need more practice.

leg			
2. Patient has acute pain related to the knee surgery as evidenced by her pain lever was 8 out of 10	Patient is experiencing severe pain after the surgery. It doesn't go away.	1. Inspect skin, observe the area for any other infection. 2. Give the medication when the patient's pain is severe.	The patient is willing to take a pain medication for leg pain. Outcomes: Patient's pain level went down to 6 after taking the pain medicine.
3. Constipation related to pain medication evidenced by her last bowel movement date (1/25/21)	Patient has no bowel movement after the knee surgery. Pain medication which is opioid cause constipation.	1. Auscultate the bowel sound and check the intake and output. 2. Give the patient stool softener and recommend to drink water.	Available bowel sound. The patient wants to have stool softener because she wants to have the bowel movement. Goals: Patient will have defecating.

Other References (APA):

NurseLab. (2021, January 13). Nursing Guides, Care Plans, NCLEX Practice Questions. Retrieved February 01, 2021, from <https://nurseslabs.com/>

Concept Map (20 Points):

Subjective Data

After the total knee replacement surgery, she moved to a recovery room. She said she is taking a laxative, history of hypertension and diabetes. She was a formal LPN, so she knows a lot about the hospital procedure and insulin shot. She mentioned laxative several times, and it seems like she is worried about constipation. The patient's pain level stays high, and she is experiencing pain. She is a former smoker but no alcohol or drug user.

Nursing Diagnosis/Outcomes

1. Impaired physical mobility related to knee replacement surgery as evidenced by difficult to move the leg.
Goals: Patient will be able to move her legs by herself little by little and need more practice.
2. Patient has acute pain related to the knee surgery as evidenced by her pain lever was 8 out of 10.
Outcomes: Patient's pain level went down to 6 after taking the pain medicine.
3. Constipation related to pain medication evidenced by her last bowel movement date (1/25/21)
Goals: Patient will have defecating.

Objective Data

Height: 5'2", Weight: 170lbs

Vital Signs(at 1120)
 BP 134/49
 Respiration 18
 Temperature 95.5 F
 Oxygen 92 %
 Pain 6/10

Acute check(at 0730) 199

Patient Information

65-year-old Female, Caucasian
 Admitted on 1/27/2021 after the surgery
 Diagnosis: total left knee replacement,
 No know allergies
 Full Code

Nursing Interventions

1. Give the medication before the activities.
 2. Perform a range of motion exercise to give the mobility.
1. Inspect skin, observe the area for any other infection.
 2. Give the medication when the patient's pain is severe.
1. Auscultate the bowel sound and check the intake and output.
 2. Give the patient stool softener and recommend to drink water.



