

Student Name: Ryan Clagett

Medical Diagnosis/Disease: Osteoarthritis/THA

-Medullary (marrow) cavity in center of diaphysis, containing either red/yellow marrow. In adults, red marrow in flat bones (pelvis), and cancellous bone at epiphyseal ends of long bones (femur). Red bone marrow involved in hematopoiesis. Yellow bone marrow in adult long bones (mainly adipose) for storing triglycerides; also involved in hematopoiesis in times of great need for blood cells.
-Joints (articulation); ball and socket (femur, spherical) has flexion, extension, adduction, abduction, and circumduction. - Hyaline cartilage on articular surfaces; fibrous provides shock absorption in pelvis; articular cartilage receives nutrition from synovial fluid diffusion. - Skeletal muscle requires neuronal stimulation for contraction; enclosed in epimysium for sliding; muscle cell composed of myofibrils (sarcomere is contractile unit; myosin (thick) and actin (thin) filaments). Isometric contraction increases tension and isotonic shortens muscle for movement.

-Neuromuscular junction has presynaptic neurons release acetylcholine (neurotransmitter) that bind w/ receptors on motor endplate of muscle, causing sarcoplasm reticulum to release Ca into cytoplasm, triggering myofibril contraction. -Bursae are small sacs containing viscous synovial fluid found at bony prominences or joints to relieve pressure and decrease friction b/t moving parts (greater trochanter at proximal femur).

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

NCLEX IV (7): Reduction of Risk

Anatomy and Physiology

Normal Structures

-The musculoskeletal (MSK) system is composed of voluntary muscle and 6 types of connective tissue: bone, cartilage, ligaments, tendons, fascia, and bursae; the purpose is to protect the body organs, provide support and stability, store minerals, and coordinated movement.
-Bone functions are support, protection of internal organs, voluntary movement, blood cell production and mineral storage; supporting framework to keep the body from collapsing; bearing weight; serving as attachment points for muscles and ligaments; muscles connected to bones via tendons; act as lever for muscles; bone marrow contains tissues for creating red/white blood cells; storage site for inorganic materials, like Ca & P; contains organic material (collagen) for continuous change, growth, and remodeling throughout life.
-Bone classified by structure as cortical (compact and dense) or cancellous (spongy); in cortical bone cylindrical structural units called osteons (Haversian systems) fit closely together to create a dense bone structure; Haversian canals run parallel to bone's long axis and contain blood vessels that travel to bone's interior from periosteum; surrounding each osteon are concentric rings called lamellae (indicate mature bone). Cancellous bone's lamellae occur along the lines of max stress placed on the bone; they are filled w/ red/yellow marrow; blood reaches bone cells by passing through spaces in the marrow.
-3 types of bone cells: osteoblasts, osteocytes, and osteoclasts. Osteoblasts make organic bone matrix (collagen) and are the basic bone-forming cells; osteocytes are mature bone cells; osteoclasts help in bone remodeling by breaking down bone tissue; bone remodeling is the removal of old bone by osteoclasts (resorption) and deposit of new bone by osteoblasts (ossification).
-Long bone consists of epiphysis, diaphysis, and metaphysis. The epiphysis (at each end of the bone) is mainly made of cancellous bone; wide b/c greater weight distribution and stability for joints; the main location of muscle attachments; articular cartilage covers ends to provide a smooth, low-friction surface for joint movement. The diaphysis is the main shaft of a long bone and carries withstanding and twisting forces. Metaphysis is a flared area b/t epiphysis and diaphysis, composed of cancellous bone. Epiphyseal plate is the cartilaginous area b/t epiphysis and metaphysis; in young children, it actively makes chondrocytes that become mature bone. Periosteum covers bone; tiny blood vessels penetrate it to bring nutrition to the underlying bone.

Pathophysiology of Disease

-During aging, bone remodeling changes w/ increased bone resorption and decreased bone formation cause bone density loss and contribute to osteopenia and osteoporosis. Muscle mass and strength decrease (30% lost by age 70). Motor neuron loss can cause problems w/ skeletal muscle movement. Tendons and ligaments become less flexible, making movement more rigid.
-Metabolic bone diseases involve bone tissue deterioration (osteoporosis) and cartilage destruction (osteoarthritis). Proprioception may be altered, leading to a risk of falls.
-Osteoarthritis (OA) is a slowly progressive noninflammatory disorder of the diarthrodial synovial joints; it affects over 30 million adults in the US, increasing as the population ages.
-OA involves the gradual loss of articular cartilage w/ formation of bony outgrowths (spurs/osteophytes) at the joint margins; cartilage destruction likely begins b/t 20-30, most adults affected by 40, few pts. have symptoms until >50, by 65 almost 50% report arthritis; no single cause of OA (genetic traits for cartilage defects or condition that directly damages cartilage or causes joint instability; decreased estrogen in women at menopause contributes to OA); obesity causes mechanical stress on joints; regular exercise decreases risk; genetic, metabolic, and local factors interact to cause cartilage deterioration from damage at the level of the chondrocytes; if becomes dull, yellow, and granular, softer, less elastic; body's attempt at cartilage repair can't keep up w/ destruction; central cartilage becomes thinner, cartilage at the joint edges become thicker and osteophytes form; joint surfaces become uneven, reducing motion as the distribution of stress is uneven; early pain caused by secondary synovitis when phagocytes try to rid joint of small pieces of cartilage torn; late pain from lost articular cartilage, causing bony joint surfaces to rub each other.
-Total hip arthroplasty (THA), or total hip replacement, provides significant relief of pain and improved function for pts. w/ joint deterioration from OA or RA as well as hip Fx; in THA, the prosthesis (implant) replaces the ball-and-socket joint formed by the upper shaft of the femur and pelvis; both the ball-and-socket components can be cemented in place w/ polymethyl methacrylate (which bonds to bone) or cementless (which may provide longer stability by enabling growth of new bone tissue into the porous surface coating of the prosthesis; cementless devices are better for younger, more active pts. and pts. w/ good bone quality as there is better bone growth into the components; postop assessments include respiratory function, pain, dressing/incision for bleeding, neurovascular, and education of hip precautions (no flexion >90 degrees, no crossing legs/ankles, no internal hip rotation).

Anticipated Diagnostics

Labs

-Erythrocyte sedimentation rate (ESR); slight increases during acute inflammation)
-CBC (iron-deficiency anemia from potential blood loss; WBC for signs of infection)
-Liver function test
-CMP (Ca for bone disease)
Additional Diagnostics
-H&P
-X-ray
-Bone scan
-CT scan
-MRI
-Synovial fluid analysis (clear yellow, no inflammation for OA)

-Postop complications include VTE, atelectasis, PNA, avascular necrosis, dislocation, severe pain.

NCLEX II (3): Health Promotion and Maintenance

NCLEX IV (7): Reduction of Risk

Contributing Risk Factors

- Older age (women >65; proprioception decrease)
- Osteoporosis
- Hx of bone diseases
- Bone cancer
- Smoking
- Joint injuries
- Obesity/nonbalanced diet
- Sedentary lifestyle

Signs and Symptoms

- Joint pain (worsens w/ activity; usually asymmetric)
- Difficult to sit down/get up from a chair when the hips are lower than the knees
- Joint stiffness (in the early morning)
- Crepitation
- Heberden nodes (DIP joints)
- Bouchard nodes (PIP joints)
- Bowedlegged (knee OA)
- Shorter leg (advanced knee OA)

Possible Therapeutic Procedures

- Non-surgical**
 - Heat and cold applications
 - Transcutaneous electrical nerve stimulation (TENS)
 - Acupuncture
- Surgical**
 - Total hip/knee arthroplasty (replacement)

Prevention of Complications

- (What are some potential complications associated with this disease process)
- Cough and deep breathing (prevent atelectasis and PNA)
 - Neurovascular assessment (prevent time delay w/ notifying provider in the event of pulselessness or paralysis)
 - Ambulation (prevent DVT, muscle atrophy, dependence)
 - Hip precautions (prevent dislodgement, severe pain)

NCLEX IV (6): Pharmacological and Parenteral Therapies

NCLEX IV (5): Basic Care and Comfort

NCLEX III (4): Psychosocial/Holistic Care Needs

Anticipated Medication Management

- Analgesics (opioids and nonopioids)
- Stool softeners
- Anticoagulants (reduce DVT)
- Corticosteroids (intraarticular injections)
- NSAIDs

Non-Pharmacologic Care Measures

- Change positions q 2hr
- Maintain immobilizer
- Apply ice packs
- Provide back rubs
- Teach relaxation techniques

What stressors might a patient with this diagnosis be experiencing?

- Recovery time back to normal life
- Fear of falling
- Inability to perform at same level pre-surgery
- Possible long-term rehabilitation or disability for older person

Client/Family Education

List 3 potential teaching topics/areas

- Adequate analgesic regimen before pain starts up or prior to ambulation to promote faster healing.
- Cough and deep breathing exercises to prevent complications like atelectasis and PNA.
- Early and regular ambulation to prevent DVT, immobility.

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)

- RN, respiratory therapist, hospitalist, surgeon, chaplain, case management
- PT/OT.

Nursing Problem Worksheet

Name: Ryan Clagett

Anticipated Patient Problem and Goals	Relevant Assessments (Prewrite) What assessments pertain to your patient's problem? Include frequencies	Multidisciplinary Team Intervention (Prewrite) What will you do if your assessment is abnormal?
Problem: Acute Pain Reasoning: Numeric pain score of 6/10 for the affected hip incision that is "sharp and hurts when I move it," exhibiting restlessness and facial grimacing when shifting in bed, and moaning after turning q2h. Goal: Pt. will report hip pain at <4/10 (for a stated pain goal of 0/10) by the end of my care. Goal: Pt. will verbalize the importance of reporting any pain to mitigate periods of intermittent pain or increased pain by the end of my care.	Assess pt's hip incision pain onset, perseverance, quality, radiation, severity, and timing q4h using a numeric pain scale.	Administer analgesic medications as prescribed and PRN for around-the-clock coverage and breakthrough pain.
	Assess pt's understanding of an adequate analgesia regimen PRN if pt. intends to tolerate intermittent pain.	Educate pt. on satisfactory pain control and increased comfort w/ an analgesia regimen PRN if pt. doesn't understand the analgesia regimen.
	Reassess pt's pain level, pain goal, and VS 15-30 min after IV opioid analgesic administration or 45-60 min after PO opioid and nonopioid analgesic administration.	Apply ice packs to hip incision area intermittently PRN if pt. reports breakthrough pain between analgesic medication doses.

Anticipated Patient Problem and Goals	Relevant Assessments (Prewrite) What assessments pertain to your patient's problem? Include frequencies	Multidisciplinary Team Intervention (Prewrite) What will you do if your assessment is abnormal?
Problem: Risk for Falls Reasoning: Morse Fall Risk score >45, "I feel unsteady on my feet," requiring two-person assist to stand, and requiring assistance to reposition in bed q2h. Goal: Pt. will not fall during my time of care. Goal: Pt. will use call bell for assistance during my time of care.	Assess muscle size and grip strength q4h.	Assist pt. with repositioning in bed or OOB to chair with assistance of other team members q2-4h.
	Assess for use or need of mobility assistive devices PRN prior to ambulation or activity OOB.	Encourage pt. to use mobility assistive devices PRN prior to ambulation or activity OOB.
	Assess pt's environment for factors known to increase fall risk (inadequate lighting, wet surfaces, waxed floors, clutter, and objects on the floor) q2h or PRN prior to ambulation or activity OOB.	Ensure that the floor is free of clutter and the room is well-lit PRN when the room is cluttered, dark, and prior to ambulation or activity OOB.

ACTIVE LEARNING TEMPLATE: *Medication*

STUDENT NAME _____

MEDICATION _____ REVIEW MODULE CHAPTER _____

CATEGORY CLASS _____

PURPOSE OF MEDICATION

Expected Pharmacological Action

Therapeutic Use

Complications

Medication Administration

Contraindications/Precautions

Nursing Interventions

Interactions

Client Education

Evaluation of Medication Effectiveness

ACTIVE LEARNING TEMPLATE: *Medication*

STUDENT NAME _____

MEDICATION _____ REVIEW MODULE CHAPTER _____

CATEGORY CLASS _____

PURPOSE OF MEDICATION

Expected Pharmacological Action

Therapeutic Use

Complications

Medication Administration

Contraindications/Precautions

Nursing Interventions

Interactions

Client Education

Evaluation of Medication Effectiveness

Module Report

Tutorial: Real Life RN Medical Surgical 4.0

Module: Total Hip Arthroplasty



Individual Name: Ryan Clagett

Institution: Margaret H Rollins SON at Beebe Medical Center

Program Type: Diploma

Standard Use Time and Score

	Date/Time	Time Use	Score
Total Hip Arthroplasty	11/13/2023 9:05:43 PM	1 hr 60 min	Satisfactory

Reasoning Scenario Details

Total Hip Arthroplasty - Use on 11/13/2023 7:06:03 PM

Reasoning Scenario Performance Related to Outcomes:

*See Score Explanation and Interpretation below for additional details.

Body Function	Strong	Satisfactory	Needs Improvement
Cardiac Output and Tissue Perfusion	66.7%	16.7%	16.7%
Cognition and Sensation	100%		
Immunity	100%		
Ingestion, Digestion, Absorption & Elimination	100%		
Mobility	100%		
Oxygenation	50%	25%	25%
Regulation and Metabolism	75%	25%	

NCLEX RN	Strong	Satisfactory	Needs Improvement
RN Management of Care	100%		
RN Safety and Infection Control	100%		
RN Health Promotion and Maintenance	100%		
RN Basic Care and Comfort	100%		

RN Pharmacological and Parenteral Therapies	100%		
RN Reduction of Risk Potential	63.6%	18.2%	18.2%
RN Physiological Adaptation	100%		

QSEN	Strong	Satisfactory	Needs Improvement
Safety	100%		
Patient-Centered Care	100%		
Evidence Based Practice	54.5%	27.3%	18.2%
Teamwork and Collaboration	100%		

Thinking Skills	Strong	Satisfactory	Needs Improvement
Clinical Application	57.1%	28.6%	14.3%
Clinical Judgment	85.7%	7.1%	7.1%

Decision Log:

Optimal Decision	
Scenario	The preoperative consult nurse is identifying the risk factors associated with postoperative complications.
Question	Nurse Amani is reviewing Dale's medical record. Which of the following findings should Amani identify as a risk factor for postoperative complications?
Selected Ordering	BMI Age Blood pressure history
Rationale	Nurse Amani should identify that Dale's blood pressure and history of hypertension pose a risk factor postoperatively. Clients who have hypertension are more likely to experience and respiratory and cardiac complications following surgery.

Optimal Decision	
Scenario	Dale is returning demonstration of each of the postoperative exercises.
Question	Nurse Amani is observing Dale return demonstration of the postoperative exercises. Which of the following demonstrations by Dale indicate the teaching has been effective?
Selected Option	Client correctly performed the ankle pumps exercise
Rationale	Dale correctly performed the ankle pumps exercise which involves moving the ankle so that the foot alternately dorsiflexes and plantar flexes. This exercise should be performed at least 10 times every hour while awake. It promotes blood flow to the lower leg by contracting and relaxing the muscles in the calf.

Optimal Decision	
Scenario	Amani is reviewing Dale's home medications and instructing them which home medication to take on the day of surgery.
Question	Nurse Amani is reviewing Dale's electronic medication record (EMR). Based on the provider's prescriptions, Amani should instruct Dale to take which of the following medications on the morning of surgery?
Selected Option	Amlodipine
Rationale	Nurse Amani should recognize that the provider's prescription indicates the medication to manage hypertension should be taken the morning of surgery. Amlodipine is a calcium channel blocker which is used to manage hypertension. Therefore, Nurse Amani should instruct Dale to take this medication the day of surgery.

Scenario	The preoperative holding nurse evaluates the data and determines next steps.
Question	Nurse Bobby Lee has obtained and reviewed Dale's vital signs. Based on these findings, which of the following actions should Bobby Lee take?
Selected Option	Obtain a prescription for acetaminophen suppository
Rationale	Nurse Bobby Lee should identify that Dale's temperature is within the expected reference range. Therefore, there is no need for Bobby Lee to obtain a prescription to administer an acetaminophen suppository.

Optimal Decision	
Scenario	The nurse is selecting the appropriate size of compression stockings for the client.
Question	Nurse Bobby Lee has measured Dale's legs for the compression stockings and documented the findings in the preoperative checklist. Using the graph below, which of the following sizes should Bobby Lee select? Compression Stocking Sizing Chart Size Calf Circumference L39.4 to 45.7 cmXL43.2 to 48.3 cmXXL45.7 to 53.3 cmXXXL53.3 to 66 cm Length Leg Length Regular40.6 to 45.7 cmLong45.7 to 50.8 cm
Selected Option	XL Regular
Rationale	Nurse Bobby Lee should identify that the conversion of inches to centimeters requires multiplying the values in inches by 2.54. Therefore, Dale's calf circumference would be 48 cm and the length would be 45.47 cm. Bobby Lee should select an XL Regular pair of compression stockings.

Optimal Decision	
Scenario	The nurse is reviewing the provider's preoperative orders and is completing the preoperative checklist.
Question	Nurse Bobby Lee is completing the preoperative checklist to prepare Dale for surgery. Which of the following tasks is the priority for Bobby Lee to complete?
Selected Option	Insert peripheral IV access

Rationale	When using the airway, breathing, circulation priority framework, Nurse Bobby Lee should first initiate IV access to provide fluids to Dale, who is NPO to avoid hypovolemia, as well as prescribed IV antibiotics to reduce the risk of infection.
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Optimal Decision	
Scenario	The acute care nurse is reviewing the postoperative orders for the client.
Question	Nurse Merryll is completing a review of Dale's postoperative prescriptions. Which of the actions should Merryll plan to take?
Selected Option	Administer the cefazolin at 1815
Rationale	According to Dr. Claw's prescription this medication is to be administered every 8 hr for 24 hr postoperatively. Nurse Merryll should plan to administer the cephazolin to Dale via intermittent IV bolus at 1815, which is 8 hours after the dose received in the operating room.

Optimal Decision	
Scenario	Merryll must determine which assessment findings requires further action.
Question	Nurse Merryll is reviewing the findings from the postoperative assessment completed for Dale. Which of the following findings should Merryll address?
Selected Option	Vital Signs
Rationale	Nurse Merryll should identify that Dale's vital signs are not all within the expected reference range and requires further action.

Optimal Decision	
Scenario	Nurse Merryll is identifying actions to implement first.
Question	Nurse Merryll is planning care for Dale. Which of the following actions should Merryll take first to address Dale's temperature?
Selected Option	Apply a warm blanket.
Rationale	When using the evidence-based practice priority framework, Nurse Merryll should identify that the first action to take to address Dale's postoperative temperature is to apply a warm blanket. This reduces heat loss and provides warmth to a large body surface area, effectively bringing Dale's temperature up to the expected reference range.

Scenario	Merryll is determining which actions to take based upon the neurovascular assessment.
Question	Nurse Merryll has entered the information from the neurovascular assessment of Dale's right lower extremity. Based on the assessment findings, which of the following actions should Merryll take?
Selected Option	Perform passive range of motion on Dale's right leg.
Rationale	Nurse Merryll should identify that passive range of motion will not address the unexpected finding of Dale's neurovascular assessment. The alteration in pulse strength could indicate a change in perfusion to their right leg and could result in serious complications if not addressed quickly.

Scenario	Casey assists Merryll with identifying location to obtain pedal pulse.
Question	Nurse Merryll is using a doppler to obtain Dale's right pedal pulse. In which of the following locations should Merryll place the transducer probe of the doppler? Image rl_ams_hip_rn_20B2_20C2_hs.jpg
Selected Option	C – The top of the foot
Rationale	Nurse Merryll should identify that this is the location of the dorsalis pedis artery and should place the transducer probe of the doppler on the dorsal aspect of the foot lateral to the extensor tendon in line with the area between the great toe and the next toe. Merryll should also use a small amount of transmission gel on the tip of the probe and place the tip of the probe at a 45° to 90° angle on Dale's skin while moving the probe around in a small area until they hear a rhythmic "whooshing" sound.

Optimal Decision	
Scenario	Merryll is determining which medication to administer to Dale to address their pain.
Question	Nurse Merryll is reviewing Dale's EMR to determine which pain medication should be administered to manage Dale's current pain level. Which of the following medications should Merryll prepare to administer?
Selected Option	Morphine
Rationale	Nurse Merryll should identify that Dale is experiencing severe pain in their right hip. Therefore, Merryll should administer morphine IV, which is an opioid analgesic that is used to manage moderate to severe pain. This medication can be administered every 2 hr and is available for administration at this time.

Optimal Decision	
Scenario	Merryll and Shannon are assisting Dale back to bed.
Question	Nurse Merryll and assistive personnel Shannon are preparing to assist Dale with transferring back to bed. After reviewing Yoshi's progress note, which of the following videos demonstrate the actions Merryll should take?
Selected Option	Nurse and AP assist client to chair with gait belt and use of walker
Rationale	Nurse Merryll and AP Shannon observed safety measures and correct body mechanics when assisting Dale in transferring from the chair to the bed. Nurse Merryll applied a gait belt, which provides stability for the client and reduces the risk for injury. While assisting with the transfer, they used a wide base of support with their legs, which provides stability and reduces the risk for injury and falls.

Optimal Decision	
Scenario	Merryll is identifying findings that require further action.
Question	Nurse Merryll is reviewing Dale's EMR. Which of the following findings should Nurse Merryll plan to address?
Selected Option	Skin integrity
Rationale	Nurse Merryll should identify that Dale's heels require further assessment. The information in Dale's EMR indicate that their skin integrity is a potential concern.

Optimal Decision	
Scenario	Merryll is completing an assessment of Dale.
Question	Nurse Merryll is performing an assessment of Dale. For which of the following findings should Nurse Merryll take further action?
Selected Option	Lung sounds
Rationale	Nurse Merryll should identify crackles during auscultation of Dale's lungs. This is often caused by the partial obstruction or collapse of the alveoli and requires further action.

Scenario	Merryll is reviewing the client's EMR to identify actions to take.
Question	Nurse Merryll has documented Dale's assessment findings. After reviewing Dale's EMR, which of the following actions should Nurse Merryll take? (Select all that apply.)
Selected Ordering	Assist with using incentive spirometer Encourage cough and deep breathing exercises Administer oxycodone Encourage ambulation
Rationale	Nurse Merryll should identify specific interventions that should be taken to address Dale's atelectasis. Managing pain will make it more likely that Dale will be comfortable with ambulation, which promotes lung expansion.

Scenario	Nurse Merryll and Charge Nurse Casey are discussing Dale's plan of care.
Question	After reviewing Dale's plan of care with charge nurse Casey, which of the following postoperative complications should nurse Merryll identify that Dale is at risk for developing based upon the assessment findings?
Selected Option	Atelectasis
Rationale	Nurse Merryll should identify that atelectasis is the partial or complete collapse of the alveoli. It is a complication that can occur after surgery related to decreased mobility and shallow respirations. Manifestations include crackles. Therefore, Merryll should identify that Dale is at risk for this complication.

Optimal Decision	
Scenario	Merryll is reviewing hip precautions with Dale.
Question	Nurse Merryll is discussing hip precautions with Dale. Which of the following statements by Dale indicate an understanding of the precautions? (select all that apply)
Selected Ordering	"I should avoid standing with my toes pointed inward." "I should sit in chairs that allow my right knee to be lower than my hip." "I should get up from sitting by putting weight on my left leg."
Rationale	Nurse Merryll should identify that Dale understands hip precautions when they make a statement about rising from a sitting to a standing position by placing their weight on their nonoperative leg.

Optimal Decision	
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Scenario	Merryll is completing Dale's daily VTE risk assessment screening tool.
Question	Nurse Merryll is reviewing the VTE screening tool and completing the information pertaining to Dale. Based upon Dale's history, what score should Merryll assign to Dale regarding the risk for VTE? (Refer to the electronic medical records to review the VTE screening tool.)
Selected Option	10
Rationale	Merryll should identify that based upon Dale's history; they have the following risk factors for VTE: Age 61-74 = 2 pt BMI > 25 = 1 pt Elective Arthroplasty (Lower extremity) = 5 pt Major surgery > 45 min = 2 pt These factors indicate Dale has a high risk for the development of VTE with a total risk factor score of 10.

Optimal Decision

Scenario	Merryll is reviewing Dale's EMR for nutritional recommendations.
Question	Nurse Merryll is reviewing Dale's EMR. Based upon Dale's history and laboratory results, which of the following nutritional recommendations should Merryll make?
Selected Option	Encourage Dale to increase their protein intake.
Rationale	After reviewing Dale's EMR, Nurse Merryll should identify that Dale's is at risk for delayed wound healing because of their BMI. Adipose tissue can impair circulation and delivery of essential nutrients and antibodies needed for wound healing. Protein is an important and essential macronutrient to replace blood lost during the surgical procedure and to promote healing. It is important for each phase of the wound healing process. Therefore, Nurse Merryll should encourage Dale to increase their intake of protein.

Optimal Decision

Scenario	Merryll is participating in interprofessional rounds about Dale and is reviewing their EMR.
Question	While discussing Dale's care with Nurse Case Manager Terry, Merryll reviews Dale's EMR. Which of the following findings should Nurse Merryll identify as indicators for inpatient rehabilitation? (Select all that apply.)
Selected Ordering	Ambulation distance Functional self-care ability Home safety
Rationale	After reviewing Dale's EMR, Nurse Merryll should identify that home safety is a finding that indicates the need for inpatient rehabilitation.

Individual Report – Score Explanation and Interpretation

Reasoning Scenario Information:

Reasoning Scenario Information provides the date, time and duration of use, along with the score earned for each attempt. A Reasoning Scenario Performance score of Strong, Satisfactory, or Needs Improvement is provided for each attempt. This information is also provided for the Optimal Decision Mode if it has been enabled.

Reasoning Scenario Performance Scores:

Strong	Exhibits optimal reasoning that results in positive outcomes in the care of clients and resolution of problems.
Satisfactory	Exhibits reasoning that results in mildly helpful or neutral outcomes in the care of clients and resolution of problems.
Needs Improvement	Exhibits reasoning that results in harmful or detrimental outcomes in the care of clients and resolution of problems.

Reasoning Scenario Performance Related to Outcomes:

A clinical reasoning performance score related to each outcome is provided. Outcomes associated with student responses are listed in the report. The number across from each outcome indicates the percentage of responses associated with the level of performance of that outcome.

NCLEX[®] Client Need Categories:

Management of Care	Providing integrated, cost-effective care to clients by coordinating, supervising, and/or collaborating with members of the multi-disciplinary health care team.
Safety and Infection Control	Incorporating preventative safety measures in the provision of client care that provides for the health and well-being of clients, significant others, and members of the health care team.
Health Promotion and Maintenance	Providing and directing nursing care that encourages prevention and early detection of illness, as well as the promotion of health.
Psychosocial Integrity	Promoting mental, emotional, and social well-being of clients and significant others through the provision of nursing care.
Basic Care and Comfort	Promoting comfort while helping clients perform activities of daily living.
Pharmacological and Parenteral Therapies	Providing and directing administration of medication, including parenteral therapy.
Reduction of Risk Potential	Providing nursing care that decreases the risk of clients developing health-related complications.

Physiological Adaptation	Providing and directing nursing care for clients experiencing physical illness.
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Quality and Safety Education for Nurses (QSEN)

Safety	The minimization of risk factors that could cause injury or harm while promoting quality care and maintaining a secure environment for clients, self, and others.
Patient-Centered Care	The provision of caring and compassionate, culturally sensitive care that is based on a client's physiological, psychological, sociological, spiritual, and cultural needs, preferences, and values
Evidence Based Practice	The use of current knowledge from research and other credible sources, upon which clinical judgment and client care are based.
Informatics	The use of information technology as a communication and information gathering tool that supports clinical decision making and scientifically based nursing practice.
Quality Improvement	Care related and organizational processes that involve the development and implementation of a plan to improve health care services and better meet the needs of clients.
Teamwork and Collaboration	The delivery of client care in partnership with multidisciplinary members of the health care team, to achieve continuity of care and positive client outcomes.

Body Function

Cardiac Output and Tissue Perfusion	The anatomical structures (heart, blood vessels, and blood) and body functions that support adequate cardiac output and perfusion of body tissues.
Cognition and Sensation	The anatomical structures (brain, central and peripheral nervous systems, eyes and ears) and body functions that support perception, interpretation, and response to internal and external stimuli.
Excretion	The anatomical structures (kidney, ureters, and bladder) and body functions that support filtration and excretion of liquid wastes, regulate fluid and electrolyte and acid-base balance.
Immunity	The anatomic structures (spleen, thymus, bone marrow, and lymphatic system) and body functions related to inflammation, immunity, and cell growth.
Ingestion, Digestion, Absorption and Elimination	The anatomical structures (mouth, esophagus, stomach, gall bladder, liver, small and large bowel, and rectum) and body functions that support ingestion, digestion, and absorption of food and elimination of solid wastes from the body.
Integument	The anatomical structures (skin, hair, and nails) and body functions related to protecting the inner organs from the external environment and injury.
Mobility	The anatomical structures (bones, joints, and muscles) and body functions that support the body and provide its movement.

Oxygenation	The anatomical structures (nose, pharynx, larynx, trachea, and lungs) and body functions that support adequate oxygenation of tissues and removal of carbon dioxide.
Regulation and Metabolism	The anatomical structures (pituitary, thyroid, parathyroid, pancreas, and adrenal glands) and body functions that regulate the body's internal environment.
Reproduction	The anatomical structures (breasts, ovaries, fallopian tubes, uterus, vagina, vulva, testicles, prostate, scrotum, and penis) and body functions that support reproductive functions.

Decision Log

Information related to each question answered in a scenario attempt is listed in the report. A brief description of the scenario, question, selected option and rationale for that option are provided for each question answered. The words "Optimal Decision" appear next to the question when the most optimal option was selected.

The rationale for each selected option may be used to guide remediation. A variety of learning resources may be used in the review process, including related ATI Review Modules.

ATI Real Life THA Virtual Clinical Reflection Questions

- 1) What was Dale's fall risk score? Is that score considered low, medium, or high risk? What interventions in Dale's care should you be implementing?
(Use your resources from class and clinical Fall Risk Score Interventions)
 - a. 45 points (at the beginning of the scenario); 90 points (by the end of the scenario)
 - b. High risk (continued to be high risk throughout the scenario)
 - c. Keep frequently used items within reach, maintain adequate lighting, educate pt/family on fall precautions, orient to call bell, apply nonskid footwear, apply fall risk band, maintain the bed in lowest position with wheels locked, maintain bed alarm, provide assistance to/from the bathroom and remain with the patient during toileting, provide assistance with ambulation, and consider additional monitoring (telesitter).
- 2) From the pre-op exercises teaching scenario, pick one that Dale demonstrated incorrectly and explain how you would teach the correct technique.
 - a. Dale incorrectly demonstrated how to use the incentive spirometer. Instead of inhaling through the mouthpiece, they exhaled through the mouthpiece. The correct technique to use the incentive spirometer is to set a goal with the dial in the middle, and then to inspire (take a breath in) with a tight seal around the mouthpiece slowly and deeply for at least five seconds. Dale should then hold their breath for three to five seconds, remove the mouthpiece from between their lips, and blow their breath out through pursed lips. The plastic in the middle of the container can rise either to the goal or surpass it. The incentive spirometer keeps the alveoli open and prevents sedimentation of mucus in the lower airways, atelectasis, and pneumonia. The incentive spirometer should be used about ten times every hour while awake.
- 3) Dale receives morphine sulfate for his hip pain. The morphine order is for 2-4mg IV Q 3-4 hours for severe or breakthrough pain. What is wrong with this order?
 - a. Instead of listing a range for the dose, the order should specify the dose; this order should be IVP instead of IV; instead of listing a range for the time between doses, the order should specify a time between each dose; this is a PRN order, so PRN should be at the end of the order as well as a numeric pain range that specifies what "severe or breakthrough pain" is, such as 7-10 pain score.
 - b. Morphine is dispensed in 2mg/ml concentration. If Merryll gave 4 mg, how many ml's of morphine did she administer? $\frac{1 \text{ mL}}{2 \text{ mg}} \cdot 4 \text{ mg} = 2 \text{ mL}$
- 4) Dale is assessed for skin integrity on his heel. What are some interventions the nurse could implement to protect his skin? What are the concerns if no interventions are implemented?
 - a. Floating the heels with pillows, applying waffle boots, applying foam with adhesive borders to the heel
 - b. If no interventions are implemented, then pressure injuries could develop, resulting in unnecessary discomfort and prolonged hospitalization
- 5) Identify three ways that the nursing team demonstrated the promotion of patient safety?

- a. Educating the patient on hip precautions at the beginning of each shift and prior to ambulation.
 - b. Assessing the heels of the patient early after an abnormal finding to prevent future impaired skin integrity. The nurse floated the heels with pillows to prevent skin breakdown and encouraged the patient to eat a high-protein diet.
 - c. At the meeting with the nurse prior to going to the hospital, the nurse reviewed Dale's H&P, current medications, and asked questions to calculate a Morse Fall Risk score that was high. After calculating the high-risk score, the nurse educated the patient and their partner on fall precautions and the importance of using the call bell for any assistance.
- 6) 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: The nurse and medical team utilized therapeutic communication techniques in the form of using appropriate pronouns for Dale, addressing their partner with no prejudice or judgment, and educating Dale and their partner in a calm, professional manner. This was true even when Dale did not correctly demonstrate the use of the incentive spirometer or could not correctly teach back what hip precautions were.
 - b. If **no**, describe:
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Reflection

- 1) Go back to your Preconference Form:
 - a. Indicate (**circle, star, highlight**) the components of your preconference form that you saw applied to the care of this virtual patient.
- 2) Review your Nursing Problem Worksheet: Did you select a correct priority nursing problem?
 - a. If **yes**, write it here: Acute Pain
 - b. If **no**, write what you now understand the priority nursing problem to be:

- 3) Review your Nursing Problem Worksheet: Did you see many of your anticipated nursing assessments and interventions used?
 - a. Indicate (**circle, star, highlight**) the ones you saw utilized during the scenario.
 - b. Were there interventions you included that *were not* used in the scenario that could help this patient?
 - i. If **yes**, describe: Regular ambulation was encouraged throughout the virtual clinical, but an important safety precaution for someone with a high fall risk is the patient's environment. An assessment I included was to check for adequate room lighting, wet surfaces, waxed floors, clutter, and objects on the floor. The intervention for this would be to ensure that the

floor is clutter-free and that the room is well-lit prior to ambulation. Maintaining a clean and open environment allows the patient to ambulate with assistance safely, preventing injury, and leading to a faster recovery.

ii. If **no**, describe:

- 4) Often patient care will take a different direction than we anticipated at the beginning of our shift. Did that happen here? Yes
- a. How did that impact the nursing care delivered? When the patient was being routinely assessed, the nurse noticed that there were fine crackles present in the bilateral lower lung fields. To address this, the nurse then provided education to the patient regarding some interventions to correct a potential problem related to atelectasis. This education involved using the incentive spirometer to open the alveoli, regularly drinking fluids to thin mucous secretions, ambulating, coughing and deep breathing, and pain management to allow the patient to perform the previous activities correctly and without discomfort.
 - b. What new, additional priority nursing problem (diagnosis) did you identify? (Refer to your NANDA list)
 - i. Write it here: Risk for Impaired Skin Integrity

What was your biggest “takeaway” from participating in the care of this patient? How did this impact your nursing practice:

My biggest takeaway from participating in the care of this patient was that not everybody recovers quickly or to the point where they can go home from the hospital after a major surgery, such as a THA. After each new video as the scenario unfolded, I expected the patient to make a full recovery and be discharged home. However, with each meeting with PT and the nurse’s assessment of the ambulation distance, functional self-care ability, and home safety, it became clear that the patient required more time to heal and rehabilitate in an inpatient rehabilitation facility. Although the patient was bummed by this outcome, they understood that they needed the time to relearn to function in everyday life again after having a major surgery. They seemed excited at the prospect of getting stronger and having the opportunity to live a future life without significant pain, and they seemed to have a strong support system through their partner who was supportive throughout the perioperative experience.

This impacted my nursing practice by making me realize that everybody has their strengths and weaknesses, and sometimes it takes people a little longer to recover and relearn how to live their lives. Care should be provided to the patient by placing them at the center so that care plans are individualized while still being performed according to evidence-based standards. It is perhaps too easy to lump patients together and try to provide the same care. Although the care of patients may be similar for post-op recovery of a THA, each patient’s background, current fears and goals, and future goals should always be included in their care plan to provide the best possible recovery for that individual.