

Preconference Form

Student Name: Ayanna Williams

Medical Diagnosis/Disease: Osteoarthritis

Surgical Procedure: Total Hip Arthroplasty (THA)

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology

Normal Structures

Anatomy:

It includes the bones, joints, cartilage, muscles, ligaments, tendons, fascia, and bursae

Physiology:

- protect body organs (rib cage protects the heart and lungs)
- provide support and stability for the body/support soft body tissue
- store minerals (calcium and phosphorus)
- allow coordinated movement
- hematopoiesis - creating blood cells in bone marrow

Pathophysiology of Disease

Osteoarthritis is a slow and progressive degenerative disease of the diarthrodial or synovial joints. OA involves the gradual loss of articular cartilage and the formation of osteophytes or spurs at the joint margins. It is not part of the normal aging process, but age can serve as a risk factor. It can be caused by a known event or a specific condition that damages the cartilage or causes joint stability. The development of OA is complex as genetic, metabolic, and local factors interact to cause cartilage deterioration from damage at the level of the chondrocytes. Typically, cartilage destruction begins at 20-30 years old, but it mostly affects adults at 40. Cartilage destruction causes it to become less elastic, dull, yellow, granular, and eventually turns into bone on bone, causing joint pain. In the early stages, pain and joint stiffness occurs as secondary synovitis may occur when phagocytes try to get rid of cartilage pieces torn from the joint surface. Since the body is not able to keep up with destruction of OA, the collagen structure in cartilage changes and articular surfaces become cracked and worn. In the later stages, uneven weight distribution occurs and the bones rub together, causing increasing pain and reduces motion.

Joints Most Affected:

- hip (most common), knees, finger joints, vertebrae, toe joints

Distinction from RA: fatigue, fever, and organ involvement (systemic) are not present

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics

Labs

- CBC - baseline
- LFT - baseline
- No lab test or biomarker used for direct diagnosis

Additional Diagnostics

- X-ray: confirm disease and stage joint damage
- Bone scan, MRI, CT scan: detect early joint changes
- Synovial fluid analysis: distinguish OA from other inflammatory diseases

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors

- age
- women - decreased estrogen at menopause
- obesity - increases mechanical stress on the joints
- frequent kneeling and stooping (occupational component)
- smoking

Signs and Symptoms

- heberden's nodes
- bouchard's nodes
- early morning joint stiffness
- crepitation
- asymmetric joint affected
- varus deformity (bowlegged)
- valgus deformity (knock-knee)
- shortened leg (advanced hip OA)

NCLEX IV (7): Reduction of Risk

Possible Therapeutic Procedures

Non-surgical

- acupuncture
- balance rest and activity
- muscle strengthening

Surgical

Arthroplasty: reconstruction or replacement of a joint

Types:

- surgical reshaping
- hemiarthroplasty (part of joint)
- replacement of total joint

Prevention of Complications

(What are some potential complications associated with this disease process)

- Severe-moderate OA: chronic pain and functional impairments
- spinal cord or nerve root impingement
- bone degeneration
- stress fractures
- carotid artery dissection
- tendon or ligament degeneration and/or rupture
- increased dependence in self-care
- unmanaged pain

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management

- DMAODs - slow progression
- NSAIDs - first-line treatment
- Topical agents (capsaicin cream, diclofenac gel, Aspercreme) - blocks/temporary pain relief
- Intraarticular corticosteroid injections

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures

- physical therapy
- cognitive behavioral therapy to help control pain
- ROM exercises
- ice/heat therapy
- weight management

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?

- functional limitations
- fear of progression
- financial issues
- lack of sleep
- lifestyle changes

Client/Family Education

List 3 potential teaching topics/areas

- weight and stress management
- the nature and treatment of OA
- principles of joint protection and energy conservation, such as avoiding forceful repetitive joint movements

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)

- physician
- nurse
- PT/OT
- dietitian
- orthopedic surgeon

Bones: categorized based on their structure, size, and distribution of spaces

- **Cortical (compact and dense):** a hard outer layer that tends to be thicker in the diaphysis than the epiphysis. It serves to protect and support long bones during weight bearing. The Haversian system/osteons fit closely together to create a dense bone structure. The Haversian canals contain blood vessels that travel from the periosteum.
- **Cancellous (spongy and porous):** serves as a rich blood supply that is filled with red or yellow bone marrow. It makes up most of the bone tissue in short, flat, and irregular shaped bones, also the epiphysis of the long bones
- **3 types of bone cells:** osteoblasts: make collagen (an organic bone matrix) and build bones/take part in ossification (intracellular material is formed and hardening minerals are deposited into the bone), osteoclasts: breakdown bone tissue, osteocytes: mature bone cells
- **Long bone:** femur, humerus, tibia
 - **diaphysis:** shaft, long main portion, provides structural support, compact bone
 - **epiphysis:** widened area at the end of long bones that allows for greater weight distribution and stability for the joints, cancellous bone, main location for muscle attachment, articular cartilage covers the ends (smooth, low-friction surface)
 - **Metaphysis:** where the diaphysis and epiphysis meets, cancellous bone, where the epiphyseal plate is (cartilaginous area where children actively produce bone)
 - **Periosteum:** fibrous connective tissue that covers the bone (besides the joint surfaces), outer layer is for ligament and tendon fiber attachment, inner layer has osteoblasts, rich blood supply through tiny blood vessels that penetrate the periosteum
 - **Medullary cavity:** center of the diaphysis, red bone marrow in children for hematopoiesis and yellow bone marrow in adults for a storage site for triglycerides
- **Short bones:** carpals in hands and tarsals in the feet
 - composed of cancellous bone covered in a thin layer of compact bone
- **Flat bones:** sternum, ribs, skull, scapula
 - 2 layers of compact bone that is separated by a layer of cancellous bone, protects delicate organs and allows attachment of large muscles
- **Irregular bones:** vertebrae, ileum, mandible
 - usually connected to several other bones for movement, inner: spongy bone, outer: layer of compact bone

Joints: the junction between 2 or more bones, classified by the degree of movement

- **synarthroses:** no movement where bone is connected to fibrous tissue or cartilage
- **amphiarthroses:** slightly moveable, no joint cavity/cartilage found between bones
- **diarthroses:** freely moveable (synovial), the joint is enclosed in a capsule of fibrous connective tissue that is lined by a synovial membrane, synovial fluid lubricates the joint, reduces frictions, and allows opposing surfaces to slide smoothly past each other, ligaments reinforce the capsule and provides limits and stability to joint movement

Cartilage: supports soft tissue and provides articular surface for joint movement, protects underlying tissue, has to receive nourishment by diffusion of the material from the synovial fluid

- **hyaline:** most common, moderate amount of collagen fibers, covers articular surfaces of bones
- **elastic:** contains collagen and elastic fibers, more flexible than hyaline
- **fibrous:** collagen fibers, tough tissue that functions as a shock absorber

Muscle: rich vascular supply, bone immovable without muscle contraction

- **cardiac:** striated and involuntary, found only in the heart, controlled by the autonomic nervous system
- **smooth:** nonstriated and involuntary, found in the walls of hollow structures, controlled by autonomic nervous system
- **skeletal:** striated and voluntary, provides controlled movement, maintains posture, produces heat
- **Structure:**
 - structured unit is the muscle fiber or muscle cell that are composed of myofibrils (protein contractile filaments), sarcomere is the contractile unit of the myofibril that consists of myosin and actin which slide past each other in contraction
 - neuromuscular junction: motor end plate is the nerve fiber and skeletal muscle fiber it stimulates, presynaptic neurons release acetylcholine that binds with the motor end plate, calcium is released by the sarcoplasmic reticulum and the myofibrils contract
 - Adenosine triphosphate (ATP) is the direct energy source

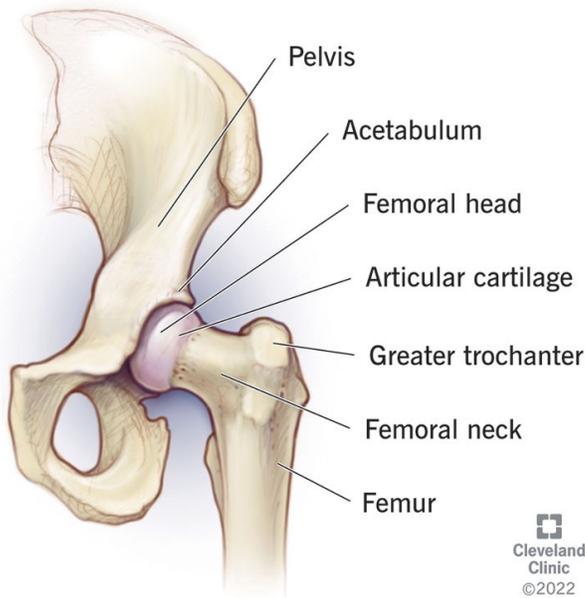
Ligaments and Tendons: composed of dense, fibrous connective tissue with bundles of closely packed collagen fibers for additional strength

- **Ligaments:** bone to bone, provide stability while allowing controlled movement at joints
- **Tendons:** muscle to bone

Fascia: layers of connective tissue, provides strength to muscle tissues, superficial: lies under the skin, deep: dense, fibrous tissue that surrounds muscle bundles, nerves, and blood vessels, encloses individual muscles to allow independence

Bursae: small sacs of connective tissue lined with synovial membrane and contains synovial fluid, found at bony prominences or joints to relieve pressure and decrease friction between moving parts

Hip Joint



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Types of Diarthrodial Joints:

- **ball and socket: permit full freedom of movement (flexion, extension, adduction, abduction, rotation) - ex: shoulder and hip**
- hinge: concave surface fits into convex surface (flexion or extension) - ex: knees and elbows
- pivot: one surface rotates around a peg or pivot - ex: proximal radial and ulnar joint
- gliding: both articular surfaces are flat, one surface moves over the other with no axis movement (side to side and back and forth) - ex: between the carpal bones, tarsals, sacrum, and ileum
- condyloid/ellipsoidal: oval condyle fits into an elliptical cavity (flex, extend, abduct, adduct, circumduction) - ex: wrist joint between the radius and carpals
- saddle: concave end fits onto a convex surface of another bone (same movement as condyloid but no axial rotation) - ex: metacarpal joint in thumb



Total Hip Arthroplasty (THA):

- provides significant relief of pain and improved function for patients with joint deterioration such as OA, RA, etc
- it can also be used to treat hip fractures
- a prosthesis is used to replace the ball-and-socket joint that is formed by the upper shaft of the femur and pelvis
- it can be inserted with cement or cementless, cementless procedures could provide longer stability through enabling new bone tissue growth into the porous space that coats the prosthesis
- can be done anteriorly with an incision at the front of the hip or posteriorly with a curved incision on the side and back of the hip
- preop: NPO status, withhold surgery if infection is present, identify risk factor, hip exercises/ROM
- post-op: do not flex hip greater than 90 degrees, adduct the hip, cross legs, put on own shoes for 4-6 weeks, or sit on chairs that do not have arms

ACTIVE LEARNING TEMPLATE: Medication

STUDENT NAME Ayanna Williams

MEDICATION Morphine Sulfate IVP REVIEW MODULE CHAPTER _____

CATEGORY CLASS Opioid analgesics/agonists

PURPOSE OF MEDICATION

Expected Pharmacological Action

Binds to opiate receptors in the CNS. Alters the perception of and response to painful stimuli while producing generalized CNS despression

Therapeutic Use

Decreases in severity of pain (moderate-severe), treats preoperative sedation, and reduces anxiety

Complications

Ambulatory patients or patients not in severe pain can experience nausea and vomiting more frequently

Frequent: sedation, hypotension, diaphoresis, facial flushing, constipation, dizziness, drowsiness

Occasional: allergic reaction, dyspnea, confusion, palpitations, tremors, urinary retention, abdominal cramps, vision changes, dry mouth, decreased appetite

Adverse Effects: overdose can lead to respiratory depression, skeletal muscle flaccidity, cold and clammy skin, cyanosis, extreme drowsiness, and repeated use can lead to tolerance to the analgesic effects and physical dependence

Medication Administration

- IV (adults over 50kg): 4-10 mg Q 3-4 hrs for moderate-severe pain in opioid naive patients
- IV (adults less than 50kg): 0.1-0.2 mg/kg Q4 hrs PRN or 2-10 mg
- Max dose: 15mg/dose

Contraindications/Precautions

Contraindications: hypersensitivity to morphine, acute or severe asthma, GI obstruction, paralytic ileus, concurrent use of MAIOs, severe respiratory depression

Extreme Cautions: COPD, cor pulmonales, hypoxia, hypercapnia, preexisting respiratory depression, head injury, severe hypotension

Caution: CV disease, morbid obesity, elderly, adrenal insufficiency, CNS depression, seizure disorder, history of drug abuse or misuse, dependency

Nursing Interventions

- Assess onset, type, location, and duration of pain prior and 20 minutes after IV administration
- Obtain VS before giving the medication
- Withhold the medication if respirations are 12 or less bpm
- Assess for potential abuse or misuse
- Monitor daily pattern of bowel activity and stool consistency

Interactions

Drug: Alcohol and other CNS depressants may increase CNS effects, respiratory depression, hypotension. MAOIs may increase serotonin syndrome.

Herbal: herbals with sedatives may increase CNS depression

Lab values: may increase serum amylase, lipase

Client Education

- Change position slowly to avoid orthostatic hypotension
- Avoid tasks that require alertness or motor skills until response to drug is established
- Avoid alcohol and CNS depressants
- Tolerance or dependence may occur with prolonged use of high doses
- Report ineffective pain control, constipation, urinary retention

Evaluation of Medication Effectiveness

- There is a decrease in the severity of pain without a significant level of consciousness or respiratory status

Compatibility

NS, D5W, LR, Ringer's injection, 1/2 NS

Amount

0.5 mg/mL

1 mg/mL

Rate of Administration

Administer single-use prefilled syringe very slowly (4-5 minutes) to prevent chest wall rigidity

Diluent

Dilute in D5W or NS to a usual concentration of 0.1-5mg/mL, more concentrated solutions may be used in patients that are on high doses or fluid restrictions

Site, supplies, storage, stability

Do not freeze, store intact vials at 25 C, protect from light, degradation depends on pH (no more than 4) and presence of oxygen, once diluted may store at room temperature or in the refrigerator up to 4 days

ACTIVE LEARNING TEMPLATE: Medication

STUDENT NAME Ayanna Williams

MEDICATION Oxycodone PO (Oxaydo) REVIEW MODULE CHAPTER _____

CATEGORY CLASS Opioid agonist (schedule II)

PURPOSE OF MEDICATION

Expected Pharmacological Action

Alters perception of and emotional response to pain

Therapeutic Use

Relief of acute or chronic, moderate to severe pain where the use of an opioid analgesic is appropriate and alternatives are inadequate

Complications

Ambulatory patients or patients not in severe pain may experience dizziness, nausea, vomiting, and hypotension more frequently than those in supine position or have severe pain

Adverse Effects: overdose results in respiratory depression, muscle flaccidity, cold or clammy skin, cyanosis, and extreme drowsiness

Medication Administration

PO: 10 mg Q 4-6hrs PRN initially

- provide without regard to food and swallow whole, for controlled-released do not break, crush, dissolve, or divide

Contraindications/Precautions

Contraindications: acute or severe bronchial asthma, hypercarbia paralytic ileus (known or suspected), GI obstruction, significant respiratory depression

Extreme Caution: CNS depression, anoxia, hypercapnia, seizures, acute alcoholism

Cautions: hepatic/renal impairment, coma, COPD, elevated ICP

Nursing Interventions

- Assess onset, type, location, duration of pain
- Assess for potential misuse/abuse (drug-seeking behavior, mental health conditions, history of substance abuse)
- Obtain vital signs, especially RR

Interactions

Drug: alcohol, other CNS depressants (Zolpidem) may increase CNS effects, respiratory depression, hypotension

Herbal: herbals with sedative properties (chamomile, kava kava) may increase CNS depression

Food: grapefruit products may increase potential to respiratory depression

Lab: may increase serum amylase/lipase

Client Education

- May cause dry mouth, drowsiness
- Avoid tasks that require alertness, motor skills until response to drug is established
- Avoid alcohol
- May be habit forming
- Do not crush, chew, dissolve, or divide controlled-release tablets
- Report severe constipation, absence of pain relief

Evaluation of Medication Effectiveness

- Screen for drug abuse and misuse (drug-seeking behavior)
- Monitor pain relief, RR, mental status, BP, and level of consciousness

Nursing Problem Worksheet

Name: Ayanna Williams

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: impaired physical mobility Reasoning: restricted joint movement, joint stiffness, osteoarthritis, decreased ROM, THA Goal: will use an assistive device, such as a walker, properly during my time of care Goal: will actively participate in physical therapy session with compliance to improve mobility during my time of care	Assess muscle strength and tone using the 0-5 scale Q 4hrs	Encourage strengthening exercises, such as tightening quads, Q 4hrs
	Assess ROM abilities Q 4hrs	Encourage passive ROM exercises, such as extension of abduction, during my time of care
	Assess mobility levels Q 4hrs	Assist with dangling and getting out of bed to ambulate with assistive device Q 4 hrs
	Assess use of assistive devices Q shift	Educate on the proper techniques to maintain balance and the appropriate posture
	Assess emotional status, such as frustration of lack of motivation, Q 4 hrs	Educate and provide reassurance on the importance of participation of PT to improve mobility and preventing further complications

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: rated 7/10 pain on a 1-10 pain scale, facial grimacing, hesitant to move joints, bone on bone joint Goal: pain level will decrease to a 2/10 during my time of care Goal: will show signs of improved comfort, such as absence of facial grimacing, during my time of care	Determine preferred distraction measures (TV, music, reading) during my time of care	Provide distraction measures, such as background music or TV access, during my time of care
	Assess pain characteristics (location, intensity, onset, duration) Q 4hrs	Administer oxycodone medication as ordered for moderate-severe pain
	Assess pain goal on a 1-10 numeric scale Q shift	Provide adequate rest periods throughout my time of care
	Assess for nonverbal signs of pain such as facial grimacing, guarding, restlessness Q 4 hrs	Educate on nonpharmacological pain techniques such as guided imagery or breathing techniques during my time of care
	Assess HR, RR, and BP Q 4 hrs	Administer morphine sulfate IVP as ordered

Module Report

Tutorial: Real Life RN Medical Surgical 4.0

Module: Total Hip Arthroplasty



Individual Name: Ayanna Williams

Institution: Margaret H Rollins SON at Beebe Medical Center

Program Type: Diploma

Standard Use Time and Score

	Date/Time (ET)	Time Use	Score
Total Hip Arthroplasty	12/3/2024 8:53:40 AM	1 hr 33 min	Satisfactory

Reasoning Scenario Details

Total Hip Arthroplasty - Use on 12/3/2024 7:20:49 AM ET

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	100%		
Cognition and Sensation	100%		
Immunity	100%		
Ingestion, Digestion, Absorption & Elimination	100%		
Mobility	75%	25%	
Oxygenation	50%	25%	25%
Regulation and Metabolism	100%		

NCLEX RN	Strong	Satisfactory	Needs Improvement
RN Management of Care	50%	50%	
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	81.8%	9.1%	9.1%
RN Physiological Adaptation	100%		

QSEN	Strong	Satisfactory	Needs Improvement
Safety	100%		
Patient-Centered Care	100%		
Evidence Based Practice	80%	10%	10%
Teamwork and Collaboration		100%	

Thinking Skills	Strong	Satisfactory	Needs Improvement
Clinical Application	83.3%	16.7%	
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.

Optimal Decision	
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	Measure Dale's legs for compression stockings
Rationale	Nurse Bobby Lee should identify that Dale's vital signs are within their expected reference ranges. Therefore, they should proceed with preparing Dale for surgery by measuring Dale's calf for the compression stockings.

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.

Optimal Decision	
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	Obtain Dale's right pedal pulse using a doppler.

Rationale	Nurse Merryll should identify that Dale's right pedal pulse was not palpable, which could indicate an alteration in perfusion to their right leg. Therefore, Merryll should take further actions to determine the presence of a pedal pulse by using a doppler device.
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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.
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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	
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.
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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.

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	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. **His fall risk score is 45**
 - b. **This score is considered a high risk**
 - c. **Placing a call light in place before exiting the room, applying a fall risk wristband, placing nonskid socks on the feet, maintaining the bed in the lowest position and the wheels locked, accompanying Dale to the bathroom and while ambulating, ensuring the bed alarm is in, placing personal items in reach, remain with Dale while toileting**
- 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 demonstrated the incorrect use of the incentive spirometer. You would instruct the patient to sit up straight to use the device effectively. Then, make a tight seal around the mouthpiece and breathe in slowly through the mouthpiece (like sucking through a straw) as the marker increases in value on the side. Hold your breath for 3-5 seconds and release the device through exhalation with pursed lips. You will perform this task 10 times every hour.**
- 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. **This order does not have clear indications of when to take the medication. There should be a range for a pain level, such as 7-10. There should also be a strict dose/time frame for when the medication is administered.**
 - b. Morphine is dispensed in 2mg/ml concentration. If Merryll gave 4 mg, how many ml's of morphine did she administer? **She administered 2mL**
- 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. **Using a pillow to offload the bony prominence, turning and reposition Q 2 hr**
 - b. **The concern would be that skin will further break down and the staging of pressure ulcers would increase. This could increase the risk of a potential infection and would increase Dale's pain levels.**
- 5) Identify three ways that the nursing team demonstrated the promotion of patient safety?
 - a. **Verified patient identification through name and DOB**
 - b. **Ensuring that the wheels were locked on the wheelchair before helping Dale to stand up**
 - c. **Providing the teach-back method for preop and postoperative teaching to verify verbal understanding**

- 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?
- If yes, describe: **I do believe that the nurse and the medical team utilized therapeutic communication. Dale and his partner were constantly addressed through the proper name and pronouns. Questions and concerns were also answered and addressed thoroughly and efficiently, such as the concern about Dale's temperature being lower than the normal range. The couple was also taught the proper interventions to use postoperatively to prevent complications and verified their understanding. One thing that stood out to me is how Amani was able to decrease the tension in the room by explaining how when a loved one is receiving surgery, others try to step in and help, be comforting, and be attentive to the events occurring.**
 - If no, describe: N/A

Reflection

- Go back to your Preconference Form:
 - Indicate (**circle, star, highlight**) the components of your preconference form that you saw applied to the care of this virtual patient.
- Review your Nursing Problem Worksheet: Did you select a correct priority nursing problem?
 - If yes, write it here: **impaired physical mobility and acute pain**
 - If no, write what you now understand the priority nursing problem to be: N/A
- Review your Nursing Problem Worksheet: Did you see many of your anticipated nursing assessments and interventions used?
 - Indicate (**circle, star, highlight**) the ones you saw utilized during the scenario.
 - Were there interventions you included that *were not* used in the scenario that could help this patient?
 - If yes, describe: **For acute pain, distractive measures could have been used in addition to the pain medication to alter his pain perception. This could be especially helpful when he had breakthrough pain, and the nurse had to administer morphine. Providing reassurance and reeducating the importance of PT was not necessary because Dale was eager to participate and be discharged from the hospital.**
 - If no, describe: N/A
- Often patient care will take a different direction than we anticipated at the beginning of our shift. Did that happen here? **Yes**
 - How did that impact the nursing care delivered? **Following the nurse's assessment, she found adventitious lung sounds (crackles) in the lungs. This caused the nurse to reinforce postoperative teaching such as the use of the IS, cough and deep breathing exercises, as well as encouraging**
 - What new, additional priority nursing problem (diagnosis) did you identify? (Refer to your NANDA list)
 - Write it here: **impaired gas exchange**

What was your biggest “take-away” 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 is to always refer to the pain assessment through the eyes of the patient. Pain is subjective data that should come directly from the patient and the interventions should be based on their statement. For example, Dale’s partner kept asking him if he was sure his pain was a 2/10 after receiving oxycodone. Dale’s response showed evidence that the medication intervention was effective. This impacts my nursing practice because it shows the importance of accurately completing a head-to-toe assessment to find abnormal findings. The subjective and objective data collected will be used to form a plan of care or alter plans if deemed necessary.**