

Preconference Form

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Medical Diagnosis/Disease: Osteoarthritis

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

Anatomy and Physiology

Normal Structures

Skeletal System:

-Skeletal system facilitates movement, provides support and leverage, protects internal organs, and enables manipulation of objects

Appendicular Skeleton:

- The Bodies extremities
- Pectoral Girdles: Consists of the clavicle and the shoulder blade
- The Arm: Consists of the humerus, radius, ulna, carpals, metacarpals, and phalanges
- Pelvic Girdle: Consists of the Ilium, Ischium, and the Pubis
- The Leg: Consists of the femur, tibia, fibula, tarsals, metatarsals, and phalanges

Axial Skeleton:

- The base of the human body
- The skull: Consists of the frontal bone, parietal bone, temporal bone, Sphenoid bone, ethmoid bone, nasal bone, lacrimal bone, vomer, zygomatic, maxillae, and the mandible
- Vertebral column: Consists of the rib cage, the ribs, the vertebrae, and the sacrum

Joints:

- Synarthroses joints: Joints that don't move at all, provide structural support
- Amphiarthroses joints: Joints with limited movement, provide stability and some movement
- Diarthroses: Freely moveable joints, allow the most movement

Pathophysiology of Disease

OA is the gradual loss of articular cartilage with the formation of bony outgrowths. OA is not a normal part of the aging process but is a risk factor. Cartilage destruction likely begins around ages 20-30, however most clients don't see symptoms until they are in their 40's. There has been no single cause identifies for OA, it is believed many genetic traits contribute to this condition. The development of OA is complex. Genetic, metabolic, and local factors interact to cause cartilage deterioration. The bodies attempt to repair cartilage cannot keep up with the process of OA. While central cartilage becomes thinner, cartilage at the joint edges become thicker, causing joint surfaces to become uneven. Ultimately causing the pain that is associated with OA.

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

Anticipated Diagnostics

Labs

CBC, WBC, possible blood cultures, liver function tests

Additional Diagnostics

History and Physical, CT, MRI, bones scan, synovial fluid analysis

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors

Age
Gender
Genetics
Obesity
Menopause
Drug use
Trauma

Signs and Symptoms

Joint pain
Edema
Redness
Deformity
Impaired mobility

NCLEX IV (7): Reduction of Risk

Possible Therapeutic Procedures

Non-surgical
Synovial fluid drainage
Surgical
Biopsy
Reconstructive surgery
(joint replacements)

Prevention of Complications

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

Deformity
Stiffness
Trouble sleeping
Tachycardia
Tachypnea
Psychological stressors

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management

Analgesics
Corticosteroids
NSAIDs
Opioid analgesics
OTC creams like Diclofenac gel

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures

Physical Therapy
Occupational Therapy
Nutritional therapy
Exercise
Heat and cold applications
Rest
Joint protection

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?

Fear of not having support
Anxious of the unknown
Anxiety of body image
Fear of not ever being themselves again

Client/Family Education

List 3 potential teaching topics/areas

- Pain Management: Educate that pain is expected, however it is still important to manage it. When client starts to feel an increase in pain tell their nurse, or if their home take another pain medication if in prescribed timeframe
- Heat and Cold application: Educate on when to use ice and when to use heat for someone with OA. Educate that ice and heat depends on the symptoms being experienced. Ice more for swelling, heat more for stiffness. Also educate to not use ice if they have decreased sensation.
- Nutritional Therapy: If client is obese, educate on healthier options for meals. And discuss possible change in their lifestyle that could help them lose weight.

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)

Occupational Therapist
Radiology
Physical Therapy
Nutritionist
Pain Management
Orthopedic Surgeon
Pharmacists
Psychologist