HealthAssess 2.0
Learning Module Outline

MODULE 1: INTRODUCTION TO HEALTH ASSESSMENT

I. Overview
- A. Components of health assessment
  1. Past medical history
  2. Current health status
  3. Develop plan based on assessment findings
  4. Health record
  5. Nurse actions
     - i. Assessment skills
     - ii. Therapeutic communication
     - iii. Collaboration
     - iv. Health education and promotion
- B. Animated demonstration

II. Nursing Process
- A. Defining nursing process
  1. RN and PN responsibilities
- B. Steps of the nursing process
  1. Assessment
     - i. Defining
       - a. Subjective vs. objective data
       - b. Action for unexpected findings
     - ii. RN vs. PN role
  2. Analysis
     - i. Defining
     - ii. RN vs. PN role
  3. Planning
     - i. Defining
     - ii. RN vs. PN role
  4. Evaluation
     - i. Defining
     - ii. RN vs. PN role
- C. Critical thinking and clinical judgment
  1. Components of critical thinking
     - i. Contextual awareness
     - ii. Analyzing assumptions
     - iii. Exploring alternatives
     - iv. Credible sources
     - v. Reflecting and deciding
  2. RN vs. PN role

III. Basic Skills of Health Assessment
- A. Ethical principles, safety, and privacy
  1. Ethical principles
     - i. Nonmaleficence
     - ii. Beneficence
     - iii. Autonomy
     - iv. Justice
     - v. Confidentiality
  2. Safety
     - i. Infection control
     - ii. Hand hygiene
     - iii. Personal protective equipment
  3. Privacy
     - i. Physical
     - ii. Personal
  4. Mandated reporting
     - i. Nurse responsibilities
     - ii. Assessment
     - iii. Documentation
- B. Communication skills
  1. Personal factors
     - i. Self-awareness
     - ii. Cultural awareness

2. Therapeutic communication
   i. General guidelines
   ii. Verbal elements
   iii. Nonverbal elements
3. Expected variations
   i. Interpreters
   ii. Physical limitations
   iii. Older adults
4. ISBARR

C. Assessment techniques
1. Inspection
   i. Components
   ii. Tools
2. Auscultation
   i. Components
   ii. Tools
3. Palpation
   i. Components
   ii. Tools
4. Percussion
   i. Components
   ii. Video: Percussion technique

D. Documenting findings
1. Medical record
   i. Components of documentation
   ii. Documentation errors
2. Electronic records
3. Paper records

IV. Quiz

MODULE 2: GENERAL SURVEY

I. Overview

A. Animated demonstration

B. Approach to initial survey and assessment
1. Verbal communication
   i. Empathy
   ii. Respect
   iii. Active listening
   iv. Building rapport
2. Nonverbal communication
   i. Body language
   ii. Therapeutic distance
3. Miscommunication
   i. Client verbal and nonverbal responses

C. Initial assessment checklist
1. General appearance
2. Behavior
3. Indicators of abuse, neglect, and human trafficking
4. Body structure
5. Mobility
6. Measurement
7. Vital signs
8. Pain

II. General Survey

A. Appearance
1. Facial features
   i. Expected findings
   ii. Unexpected findings
2. Emotional state
   i. Expected findings
   ii. Unexpected findings
3. Eye contact
   i. Expected findings
      a. Cultural considerations
   ii. Unexpected findings

4. Level of consciousness
   i. Expected findings
   ii. Unexpected findings
5. Skin
   i. Expected findings
   ii. Unexpected findings

B. Behavior
1. Speech
   i. Expected findings
   ii. Unexpected findings
2. Mood
   i. Overview
   ii. Assessment components
3. Affect
   i. Overview
   ii. Expected findings
   iii. Unexpected findings
4. Personal hygiene
   i. Overview
      a. Cultural considerations
   ii. Grooming
      a. Expected findings
      b. Unexpected findings
   iii. Odor
      a. Expected findings
      b. Unexpected findings
   iv. Dental hygiene
      a. Expected findings
      b. Unexpected findings

C. Body structure and mobility
1. Posture
   i. Overview
   ii. Expected findings
      a. Older adults
   iii. Unexpected findings
2. Overall build
   i. Overview
      a. Nutritional status
   ii. Expected findings
      a. Expected variations
         1) Endocrine
   iii. Unexpected findings
3. Mobility
   i. Overview
   ii. Gait
      a. Expected findings
      b. Expected variations
         1) Assistive devices

D. Unexpected findings
1. Range of motion
   i. Expected findings
   ii. Unexpected findings
      a. Involuntary movements
         1) Types of involuntary movements

III. Measurement
A. Overview
B. Height
1. Assessment technique
   i. Standing
   ii. Supine

C. Weight
1. Assessment technique
   i. Weight-bearing
   ii. Non-weight-bearing
2. Expected variations
3. Unexpected findings
   i. Gain
   ii. Loss

- D. BMI
  - 1. Overview
  - 2. Adolescent growth curve
  - 3. Height and weight in older adults
- E. Case study: Older adult and nutritional concerns

IV. Vital Signs
- A. Overview
  - 1. Components
  - 2. Delegation
  - 3. Factors affecting accuracy
- B. Temperature
  - 1. Overview
  - 2. Video: Physiology of thermoregulation
  - 3. Factors affecting
    - i. Older adults
    - ii. Diurnal rhythm
  - 4. Tools
  - 5. Routes
    - i. Overview
    - ii. Oral
    - iii. Rectal
    - iv. Temporal
    - v. Axillary
    - vi. Tympanic
  - 6. Unexpected findings
    - i. Hyperthermia
    - ii. Hypothermia
- C. Pulse
  - 1. Overview
  - 2. Tools
    - i. Clock
    - ii. Stethoscope
    - iii. Doppler ultrasound
      - a. Indications for use
      - b. Video: Using a Doppler ultrasonic stethoscope
  - 3. Palpation
    - i. Technique
    - ii. Pulse qualities
      - a. Rate and rhythm
        - 1) Overview
        - 2) Expected findings
          - i) Older adult
          - ii) Adolescent
        - 3) Unexpected findings
          - i) Bradycardia
          - ii) Tachycardia
          - iii) Irregular
      - b. Strength
        - 1) Overview
          - i) Expected findings
          - ii) Unexpected findings
      - c. Equality
        - 1) Overview
        - 2) Expected findings
        - 3) Unexpected findings
- D. Pulse oximetry
  - 1. Overview
  - 2. Tools
    - i. Probes
    - ii. Accuracy
  - 3. Factors affecting pulse oximetry reading
  - 4. Additional assessments
    - i. Color
    - ii. Behavior
    - iii. Presence of conditions which can affect reading
  - 5. Expected findings
  - 6. Unexpected findings
- E. Respirations
  - 1. Overview
  - 2. Tools
    - i. Assessment technique

3. Assessment
   i. Rate
      a. Expected findings
      b. Unexpected findings
   ii. Depth
      a. Expected findings
      b. Unexpected findings
   iii. Rhythm
      a. Expected findings
      b. Unexpected findings
4. Factors affecting respirations
   i. Exercise
   ii. Pain
   iii. Anxiety
   iv. Smoking
   v. Body position
   vi. Medications
   vii. Neurological injury and alterations in hemoglobin

F. Blood pressure
1. Overview
2. Tools
   i. Manual
   ii. Electronic
   iii. Cuff size
3. Assessment findings
   i. Expected findings
   ii. Unexpected findings
      a. Stage 1 hypertension
      b. Stage 2 hypertension
4. Alternate cuff placement
5. Factors affecting blood pressure
   i. Smoking
   ii. Sex
      a. Male adolescents
      b. Older adult females
   iii. Ethnicity
   iv. Diurnal variations
   v. Medications
   vi. Obesity
   vii. History of hypertension or hypotension
6. Variations in data collection procedures
   i. Orthostatic blood pressure
      a. Assessment technique
      b. Definition

V. Pain Assessment
A. Overview
B. Sources of pain
   1. Visceral
   2. Somatic
   3. Referred
C. Types of pain
   1. Acute
   2. Chronic
D. Collecting subjective data
   1. Overview
   2. PQRST method
   3. Numeric scale
E. Collecting objective data
   1. Indicators

VI. Summary
A. Overview
B. Documentation
   1. Initial assessment
   2. Vital signs
C. Case study: Older adult with abdominal pain
   1. Narrative charting activity

VII. Quiz

MODULE 3: HEALTH HISTORY

I. Overview
- A. Overview
  1. Animated demonstration
  2. Acronym: PLEASE
- B. Stages
  1. Opening stage
  2. Interviewing stage
  3. Closing stage
- C. Planning
  1. Overview
  2. Medical record
  3. Time and place
  4. Seating
  5. Pain
  6. Individual considerations
     - i. Cultural
     - ii. Sensory or physical disability
     - iii. Interpreter use
- D. Interviewing techniques
  1. Overview
     - i. Interpreting body language
     - ii. Cultural differences
  2. Directive
     - i. Overview
     - ii. Examples
  3. Nondirective
     - i. Overview
     - ii. Examples
- E. Types of questions to use
  1. Closed-ended
     - i. Overview
     - ii. Examples
  2. Open-ended
     - i. Overview
     - ii. Examples
- F. Interviewing tips
  1. Interpreting body language
  2. Actions to avoid
     - i. Judgmental statements
     - ii. Why questions
     - iii. Interrupting
     - iv. Leading questions
     - v. Projecting values
- G. Interpret and validate data
  1. Factual documentation

II. Current Health
- A. Overview
  1. Language and interpreter
  2. Sources of information
- B. Biographic data
  1. Identifiers
  2. Sex and gender
     - i. Biological sex
     - ii. Gender identity
     - iii. Gender pronouns
  3. Contact person
- C. Reason for seeking care
  1. Subjective data
- D. History of present illness
  1. Onset
  2. Location
  3. Duration
  4. Characteristics
  5. Aggravating and alleviating factors
  6. Related symptoms
  7. Treatment
  8. Severity
- E. Social determinates of health
  1. Overview

III. History
- A. Overview
- B. General data collection
  1. Childhood illnesses
  2. Injuries
  3. Chronic illness
  4. Hospitalizations
  5. Surgeries
  6. Immunizations
  7. Health maintenance exams and screenings
     - i. Examinations
     - ii. Colonoscopy screening
     - iii. Tuberculosis test
     - iv. Mammogram/Pap smear
  8. Allergies
  9. Current medications
- C. Obstetrical
  1. GTPAL
- D. Emotional and psychological
  1. Current stressors
  2. Coping strategies
  3. Grief
     - i. Support systems
- E. Family history
  1. Genetic
  2. Neurological
  3. Cardiac
  4. Endocrine
  5. Musculoskeletal
  6. Respiratory
  7. Allergies

IV. Review of Systems
- A. Overall health
- B. Skin
  1. History of skin conditions
  2. Recent changes to skin
- C. Head and neck
  1. Head
     - i. History of head trauma or alterations
     - ii. Recent manifestations
  2. Eyes
     - i. History of chronic conditions
     - ii. Use of visual aids
     - iii. Recent changes
  3. Ears
     - i. History of chronic conditions
     - ii. Use of hearing aids
     - iii. Recent changes
  4. Nose and sinuses
     - i. History of chronic conditions
     - ii. Recent changes
  5. Mouth and throat
     - i. History of chronic conditions
     - ii. Use of dentures or bridges
     - iii. Recent changes
  6. Neck
     - i. History of chronic conditions
     - ii. Recent changes
- D. Breast and lymphatics
  1. History of chronic conditions
  2. Recent changes
- E. Respiratory system
  1. History of chronic conditions
  2. Recent changes
  3. Screening for tuberculosis
- F. Cardiac and peripheral vascular system
  1. History of chronic conditions
  2. Recent changes
- G. Gastrointestinal system
  1. History of chronic conditions
  2. Recent changes
  3. Colon cancer screening

- H. Genitourinary system
  - 1. Urinary
    - i. History of chronic conditions
    - ii. Recent changes
  - 2. Reproductive
    - i. History of chronic conditions
    - ii. Recent changes
    - iii. Menstrual
- I. Whole-body systems
  - 1. Musculoskeletal system
    - i. History of chronic conditions
    - ii. Recent changes
  - 2. Neurologic system
    - i. History of chronic conditions
    - ii. Recent changes
  - 3. Hematologic system
    - i. History of chronic conditions
    - ii. Recent changes
  - 4. Endocrine system
    - i. History of chronic conditions
    - ii. Recent changes

- V. Functional Assessment
  - A. Overview
  - B. Internal factors
    - 1. Self-concept
      - i. Self-esteem
      - ii. Body image
      - iii. Role performance
      - iv. Personal identity
        - a. Personal interactions
        - b. Sexuality and gender identity
    - 2. Health literacy
    - 3. Stress
      - i. Identify stressors
      - ii. Coping mechanisms
        - a. Effectiveness
      - iii. Support system
    - 4. Activity and exercise
      - i. Independence with ADLs
      - ii. Intentional exercise
    - 5. Sleep
      - i. Sleep patterns
      - ii. Sleep aids
    - 6. Spirituality
      - i. FICA
    - 7. Substance use
      - i. Alcohol
      - ii. Tobacco
      - iii. Recreational drugs
  - C. External factors
    - 1. Occupational health
      - i. Exposures
      - ii. Injury risks
      - iii. Coworker interactions
      - iv. Health promotion programs
    - 2. Living environment
      - i. Safety
        - a. Home
          - 1) Smoke and carbon monoxide detectors
          - 2) Lighting
          - 3) Heating
          - 4) Hazard substance exposure
          - 5) Violence
        - b. Neighborhood
          - 1) Transportation and food access
          - 2) Violence
          - 3) Pollution

3. Relationships
   i. Family unit
   ii. Support persons
4. Abuse
   i. Overview
   ii. Intimate partner abuse
   iii. Human trafficking
   iv. Elder or disabled adult abuse

VI. Summary
   A. Documentation

VII. Quiz

MODULE 4: SKIN

I. Overview
   A. Assessment details
      1. Tools
         i. Penlight
         ii. Gloves
         iii. Ruler
      2. Animated demonstration
   B. Anatomy/physiology review

II. Health History Interview
   A. Subjective data to collect
      1. Allergies, rashes, or other
      2. Changes in skin or nails
      3. Current alterations
      4. Skin and nail care
      5. Skin cancer history
      6. Self-assessment practices for skin cancer
   B. Case study: Older adult who has a rash

III. Skin Color
   A. Expected findings
   B. Expected variations
      1. Hyperpigmentation
      2. Hypopigmentation
   C. Unexpected findings
      1. Cyanosis
      2. Ecchymosis
      3. Erythema
      4. Jaundice
      5. Pallor

IV. Skin Texture and Moisture
   A. Expected findings
   B. Expected variations
      1. Acne
      2. Wrinkles
      3. Scars
         i. Atrophic
         ii. Keloid
   C. Unexpected findings
      1. Velvety skin
      2. Roughness, dryness, and flakiness
      3. Diaphoresis

V. Skin Integrity
   A. Assessment
      1. Expected findings
      2. Unexpected findings
         i. Lesions
            a. Vascular
               1) Petechiae
               2) Ecchymosis
               3) Purpura

- b. Primary
  - 1) Flat
    - i) Macule
    - ii) Patch
  - 2) Raised
    - i) Papule
    - ii) Plaque
  - 3) Raised solid
    - i) Wheal
    - ii) Nodule
    - iii) Tumor
  - 4) Raised fluid-filled
    - i) Vesicle
    - ii) Bulla
    - iii) Pustule
    - iv) Cyst
- c. Secondary
  - 1) Changes to skin surface
    - i) Lichenification
  - 2) Debris on skin surface
    - i) Crust
    - ii) Scale
    - iii) Fissure
    - iv) Erosion
  - 3) Alteration in skin integrity
    - i) Ulcer
    - ii) Excoriation

ii. Potentially malignant lesions
- a. ABCDE rule

3. Intervention needed: Pressure injury

i. Overview

ii. Assessment
- a. Stage 1
- b. Stage 2
- c. Stage 3
- d. Stage 4

iii. Interventions
- a. Prevention/healing
- b. Nutritional supplements

iv. Documentation

VI. Skin Temperature

A. Video demonstration: Assessing skin temperature

B. Video: Compare temperature

C. Expected findings

D. Expected variations

E. Unexpected findings
1. Hyperthermia
2. Hypothermia

VII. Skin Mobility and Turgor

A. Video demonstration: Assessing skin turgor

B. Expected findings

C. Expected variations
1. Older adults

D. Unexpected findings
1. Tenting
2. Edema

i. Overview

ii. Assessment
- a. Video demonstration: Assessing edema
- b. Nonpitting edema
- c. Pitting edema
  - 1) Four-point scale

VIII. Nails

A. Assessment
1. Video demonstration: Assessing capillary refill

B. Expected findings
1. Nail
2. Capillary refill

C. Expected variations
1. Older adult nail changes
D. Unexpected findings
1. Color variations
i. Brown with linear streak
ii. Bluish tinge
iii. Pallor
2. Clubbed nails
3. Jagged nails
4. Structure variations
i. Thickening
ii. Pitting
iii. Linear depressions
5. Delayed capillary refill

IX. Health Promotion
A. Bathing and hygiene practices
1. Bathing interventions
2. Skin care products interventions
3. Abrasion interventions
4. Excessive skin dryness interventions
5. Acne interventions
6. Erythema interventions
B. Skin protection from sun exposure
1. Sunscreen usage
2. Limiting sun exposure
3. Skin damage consequences
4. Indoor tanning risks
C. Self-assessment of moles and suspicious lesions
1. Risk factors
2. Self-assessment techniques
3. Findings necessitating provider notification

X. Summary
A. Overview
1. Tools
2. Subjective data collection
3. Objective data collection
4. Assessment and intervention
5. Client education
B. Case study
1. Documentation activity

MODULE 5 : HEAD, NECK, AND NEUROLOGICAL

I. Overview
A. Assessment details
1. Tools
i. Penlight
ii. Gloves
2. Animated demonstration
B. Anatomy/physiology review
1. Head
2. Face
3. Eyes
4. Ears
5. Nose and sinuses
6. Mouth and throat
7. Neck

II. Health History Interview
A. System-specific questions
1. Head and neck
2. Eyes
3. Ears
4. Nose and sinuses
5. Mouth and throat

- B. Case study: Middle adult who has headaches
- C. Intervention needed: Orientation deficit
  - 1. Gather subjective data
  - 2. Assessment
    - i. Inspect
      - a. Face symmetry
      - b. Pupillary reaction
    - ii. Palpate
      - a. Muscle weakness
    - iii. Vital signs
  - 3. Additional nursing actions
    - i. Documentation and notification
    - ii. Fall precautions
    - iii. Aspiration precautions
    - iv. Orienting client

III. Head

- A. Assessment technique
  - 1. Overview
  - 2. Expected findings
    - i. Round skull with prominent frontal and occipital areas
      - a. Protrusion in mastoid and parietal areas
      - b. Proportional to rest of body
      - c. Held upright and midline
    - ii. Facial features symmetrical and relaxed position
      - a. Nasolabial folds and palpebral fissures symmetrical
    - iii. Skin uniform in color and smooth
  - 3. Expected variations
    - i. Slight facial asymmetry
    - ii. Older adult hair changes
  - 4. Unexpected findings
    - i. Significant asymmetry
    - ii. Trauma
    - iii. Skin lesions
    - iv. Patch hair loss
    - v. Facial edema
    - vi. Tense facial expression
    - vii. Coarse facial hair on female client
    - viii. Head lice
- B. Intervention needed: Facial drooping
  - 1. Gather subjective data
  - 2. Assessment
    - i. Extent of facial paralysis
    - ii. Orientation and comprehension
    - iii. Speech
    - iv. Limb paralysis and awareness
  - 3. Additional nurse actions
    - i. Measure vital signs
    - ii. Notify provider
    - iii. NPO status pending swallow evaluation
    - iv. Fall precautions
    - v. Orientation of client

IV. Eyes

- A. Assessment technique
  - 1. Overview
    - i. Images of scleral variations
    - ii. Video demonstration: Conjunctiva and scleral assessment
    - iii. Video demonstration: Pupillary reaction assessment
    - iv. Images of pupil dilation
  - 2. Expected findings
    - i. Eye placement and appearance
    - ii. Eyebrow appearance
    - iii. Eyelash appearance
    - iv. Sclera appearance
    - v. Conjunctiva appearance
    - vi. Pupil appearance and reaction

3. Expected variations
   i. Older adults
      a. Appearance changes
         1) Fat distribution changes and effects
         2) Eyelid
            i) Ectropion
            ii) Entropion
            iii) Pseudoptosis
      b. Pupil reaction times
4. Unexpected findings
   i. Abnormal eye position
      a. Exophthalmos
      b. Strabismus
   ii. Eyebrow
      a. Decreased length
      b. Dry skin
   iii. Eyelid
      a. Redness
      b. Edema
      c. Drooping
      d. Incomplete closure
   iv. Sclera
      a. Yellow or green color changes
   v. Conjunctiva
      a. Subconjunctival hemorrhage
      b. Conjunctivitis
   vi. Pupils
      a. Unequal size
      b. Cloudy appearance
      c. Size
         1) Dilated at rest
         2) Constricted

B. Intervention needed: Vision problem
   1. Gather subjective data
   2. Assessment
      i. Color changes
         a. Edema
         b. Pain
         c. Tearing
      ii. Drainage
      iii. Pupil size and response to light
   3. Additional nursing actions
      i. Document and report to provider
      ii. Reduce fall risk
      iii. Corrective lenses and large print materials accessible
      iv. Protect eye until evaluated by provider

V. Ears
   A. Assessment technique
      1. Overview
      2. Expected findings
         i. Symmetrical appearance
         ii. Skin coloring and appearance
         iii. Cerumen presence and variations
      3. Expected variations
         i. Family traits
         ii. Older adults
            a. Drooping
            b. Coarse hairs
      4. Unexpected findings
         i. Alteration in skin integrity
         ii. Color changes
         iii. Drainage
            a. Purulent
            b. Bloody
            c. Watery

- iv. Manifestations of hearing loss
  - a. Question repetition
  - b. Client positioning
  - c. Lipreading

B. Intervention needed: Ear drainage or pain

1. Gather subjective data
   - i. Manifestations of hearing loss
   - ii. Sound changes
   - iii. Vertigo
   - iv. Recent injuries
   - v. Pain
2. Assessment
   - i. Inspection
     - a. Appearance
     - b. Drainage
   - ii. Palpation
     - a. Pain
     - b. Warmth
     - c. Edema
3. Additional nursing actions
   - i. Document
   - ii. Report to provider

VI. Nose and Sinuses

A. Assessment technique

1. Overview
   - i. External nose
   - ii. Nasal mucosa
   - iii. Video demonstration: Sinus palpation
2. Expected findings
   - i. Position
   - ii. Skin integrity
   - iii. Nasal mucosa
3. Expected variations
   - i. Older adults
     - a. Appearance changes
     - b. Sense of smell
4. Unexpected findings
   - i. Pale mucosa
   - ii. Drainage
     - a. Clear
     - b. Mucoid
     - c. Yellow/green
     - d. Unilateral watery

B. Intervention needed: Sinus congestion

1. Gather subjective data
   - i. Discharge
   - ii. Pain
   - iii. Airflow
2. Assessment
   - i. Inspection
     - a. Mucosa
     - b. Drainage
   - ii. Palpation
     - a. Airflow
     - b. Sinuses
       1) Edema
       2) Pain
   - iii. Additional nursing actions
     - a. Client education
       1) Promoting sinus drainage
       2) Avoid allergy triggers
       3) Infection control
       4) Fluid intake
   - iv. Documentation
   - v. Report to provider

VII. Mouth
- A. Assessment technique
  - 1. Overview
    - i. Inspect
      - a. Lips
      - b. Teeth and gums
      - c. Tongue
      - d. Oral mucosa
      - e. Posterior pharynx
  - 2. Expected findings
    - i. Lips
    - ii. Teeth and gums
      - a. Light skin tones
      - b. Dark skin tones
      - c. Older adults
    - iii. Oral mucosa
    - iv. Tongue
    - v. Palate
    - vi. Tonsils
  - 3. Expected variations
    - i. Older adults
      - a. Teeth variation
      - b. Mucosal variation due to decreased salivation
  - 4. Unexpected findings
    - i. Tongue
      - a. Reddened
      - b. Edematous
      - c. White plaques
    - ii. Gums
      - a. Bleeding
      - b. Edema
    - iii. Palate
      - a. Jaundice
      - b. Petechia
    - iv. Mucosa
      - a. Ulcerations
      - b. Redness
      - c. Edema
      - d. Exudate
      - e. White plaques

VIII. Neck
- A. Assessment technique
  - 1. Overview
  - 2. Expected findings
    - i. Muscle symmetry
    - ii. Tracheal midline
    - iii. Absence of lumps or lesions
    - iv. Range of motion
    - v. Swallowing ease
  - 3. Unexpected findings
    - i. Pain or limitation of movement
    - ii. Tracheal shift
    - iii. Anterior edema
    - iv. Enlarged lymph nodes
    - v. Dysphagia
- B. Intervention needed: Lump on anterior neck
  - 1. Gather subjective data
    - i. Pain
    - ii. Dysphagia
    - iii. Breathing difficulties
  - 2. Assessment
    - i. Inspection
      - a. Manifestations of respiratory distress
      - b. Trachea position
    - ii. Auscultation
      - a. Trachea for stridor
  - 3. Additional nursing actions
    - i. Document
    - ii. Notify provider
    - iii. Initiate NPO status

IX. Health Promotion
- A. Overview
  - 1. Vision protection
  - 2. Hearing protection
  - 3. Oral care
  - 4. Helmet use
  - 5. Seatbelt use
- B. Health screenings
  - 1. Vision
    - i. Adults
    - ii. Older adults
  - 2. Hearing
    - i. Older adults
  - 3. Dental

X. Summary
- A. Overview
  - 1. Tools
  - 2. Subjective data
  - 3. Objective data
  - 4. Nursing actions
  - 5. Documentation and reporting
- B. Case study: Older adult who has facial drooping and dysarthria
  - 1. Documentation activity

XI. Quiz

MODULE 6: RESPIRATORY

I. Overview
- A. Animated demonstration
- B. Details
  - 1. Overview
    - i. Monitoring
    - ii. Changes with chronic conditions
    - iii. Nursing actions
      - a. Related assessments
      - b. Incentive spirometer
      - c. Coughing and deep breathing
      - d. Notify provider
  - 2. Tools
    - i. Watch
    - ii. Stethoscope
    - iii. Pulse oximeter
    - iv. Incentive spirometer
- C. Anatomy and physiology review
  - 1. Video: Gas exchange through the lungs

II. Preliminary Stats
- A. Observe client
  - 1. Respiratory rate
  - 2. Respiratory effort
  - 3. Position of breathing
    - i. Expected findings
      - a. Relaxed
      - b. Occasional sighing
    - ii. Expected variations
      - a. Thoracic breathing
      - b. Abdominal breathing
    - iii. Unexpected findings
      - a. Tripod position
      - b. Accessory muscle
      - c. Pursed lips
      - d. Difficulty speaking

- B. Assess level of consciousness
  - 1. Expected findings
  - 2. Unexpected findings
    - i. Agitation or confusion
    - ii. Frequent sighing
- C. Assess skin and fingers for signs of hypoxia
  - 1. Expected findings
    - i. Light skin tones
    - ii. Dark skin tones
  - 2. Unexpected findings
    - i. Diaphoresis
    - ii. Cyanosis
      - a. Light skin tones
      - b. Dark skin tones
    - iii. Pallor
      - a. Light skin tones
      - b. Dark skin tones
    - iv. Clubbing of nails
- D. Check respiratory rate
  - 1. Tachypnea
  - 2. Eupnea
  - 3. Bradypnea
- E. Check pulse oximetry
  - 1. Expected findings
  - 2. Unexpected findings
    - i. Parameter
    - ii. Conditions which effect accuracy
- F. Intervention needed: Hyperventilation
  - 1. Assessment
    - i. Respiratory rate
    - ii. Additional manifestations
    - iii. Pulse oximetry reading
  - 2. Nursing actions
    - i. Client safety
    - ii. Assist to slow breathing
    - iii. Determine cause and intervene
    - iv. Notify provider
    - v. Reassess

III. Health History Interview

- A. Overview
  - 1. Past history
  - 2. Current manifestations
  - 3. Smoking history
- B. Case study: Older adult who has shortness of breath and fatigue

IV. Anterior Chest

- A. Overview
  - 1. Assessment technique
    - i. Inspection
    - ii. Palpation
- B. Chest shape and configuration
  - 1. Assessment technique
  - 2. Expected findings
    - i. Adult
      - a. Appearance
      - b. Coloring
        - 1) Light skin tones
        - 2) Dark skin tones
    - ii. Older adult
      - a. Decreased activity tolerance
  - 3. Expected variations
    - i. Older adult
      - a. Decreased cough
      - b. Barreled chest
      - c. Kyphosis

4. Unexpected findings
   i. Barrel chest
   ii. Funnel chest
   iii. Pigeon chest

C. Chest expansion
1. Assessment technique
2. Expected findings
3. Unexpected findings
   i. Tachypnea
   ii. Bradypnea
   iii. Hypoventilation
   iv. Hyperventilation
   v. Cheyne–Stokes breathing
   vi. Ataxic breathing

D. Auscultate
1. Assessment technique
   i. Stethoscope placement
   ii. Breathing posture
   iii. Accessory muscle use
   iv. Video demonstration: Anterior chest inspection and auscultation

E. Palpate
1. Overview
2. Expected findings
3. Unexpected findings
   i. Hesitancy
   ii. Grating sensation

F. Intervention needed: Shortness of breath, cough, retractions
1. Assessment
   i. Gather subjective data
   ii. Oxygen saturation
   iii. Respiratory rate
   iv. Temperature
   v. Nailbed and mucus membranes
2. Additional nurse actions
   i. Positioning
   ii. Oxygen therapy
   iii. Cough and deep breathe
   iv. Incentive spirometry
   v. Mindfulness
   vi. Pulmonary hygiene
   vii. Hydration
3. Recheck status

V. Posterior and Lateral Chest
A. Overview
B. Chest shape and configuration
1. Assessment technique
2. Expected findings
3. Expected variations
   i. Barrel shape
   ii. Scoliosis
   iii. Kyphosis
4. Unexpected findings
   i. Unequal expansion

C. Breathing posture
1. Expected findings
2. Unexpected findings
   i. Posture
   ii. Retractions

D. Palpation
1. Assessment technique
2. Expected findings
   i. Smooth symmetrical movement
   ii. Equal expansion
3. Unexpected findings
   i. Hesitancy
   ii. Grating sensation

E. Auscultation
1. Assessment technique
2. Video demonstration: Respiratory posterior chest inspection and auscultation

VI. Breath Sounds
- A. Overview
  - 1. Assessment technique
    - i. Tracheal breath sounds
    - ii. Bronchial breath sounds
    - iii. Bronchovesicular breath sounds
    - iv. Vesicular breath sounds
- B. Expected findings
  - 1. Tracheal breath sounds
  - 2. Bronchial breath sounds
  - 3. Bronchovesicular breath sounds
  - 4. Vesicular breath sounds
- C. Unexpected findings
  - 1. Pleural friction rub
  - 2. Crackles
    - i. Fine
    - ii. Coarse
  - 3. Wheezes
  - 4. Rhonchi
  - 5. Stridor
- D. Intervention needed: Minimal air movement
  - 1. Assessment
    - i. Oxygen saturation
    - ii. Rate and depth of respirations
    - iii. Chest movement and symmetry
    - iv. Effort of breathing
  - 2. Additional nurse actions
    - i. Elevate head of bed
    - ii. Cough and deep breath
    - iii. Apply oxygen
    - iv. Notify provider
    - v. Documentation
    - vi. Recheck status

VII. Health Promotion
- A. Overview
  - 1. Identifying risk factors
- B. Tobacco use
  - 1. Risks
  - 2. Secondhand smoke
  - 3. Smoking cessation education
- C. Immunizations
  - 1. Influenza vaccine
  - 2. Pneumonia vaccine

VIII. Summary
- A. Overview
  - 1. Assessment components
  - 2. Tools
- B. Inspection
- C. Palpation
- D. Auscultation
- E. Documentation and provider notification
- F. Case study: Adult client who has alteration in respiratory status
  - 1. Documentation activity

IX. Quiz

MODULE 7: CARDIOVASCULAR

I. Overview
- A. Assessment details
  - 1. Animated demonstration
  - 2. Vital signs
  - 3. Assessment techniques
    - i. Inspect, palpate, and auscultate
    - ii. Respiratory and skin findings correlate with cardiovascular
  - 4. Documentation

5. Tools
   i. Stethoscope
   ii. Doppler ultrasound
   iii. Clock
   iv. Penlight

B. Anatomy and physiology review

II. Health History Interview

A. Present health conditions
   1. Pain
   2. Shortness of breath
   3. Skin color changes
   4. Edema/weight gain
   5. Cough
   6. Fatigue

B. Past health conditions
   1. Elevated labs or blood pressure
   2. History cardiac disease or illnesses
   3. Diabetes

C. Family history

D. Other questions
   1. Substance use
   2. Exercise

E. Case study: Older adult who has fatigue and shortness of breath
   1. Interview question activity

III. Neck Vessels

A. Inspect
   1. Assessment technique
   2. Expected findings
   3. Unexpected findings
      i. Full-bulging jugular vessels
      ii. Absence of pulsation in carotid

B. Palpate
   1. Assessment technique
      i. Video demonstration: Carotid pulse palpation
   2. Expected findings
   3. Expected variations
      i. Older adults: caution when palpating carotid
   4. Unexpected findings
      i. Bounding pulse
      ii. Diminished pulse

IV. Anterior Chest

A. Prepare to assess

B. Inspect
   1. Expected findings
   2. Expected variations
      i. Body size and shape can impact PMI palpation
   3. Unexpected findings
      i. Lift or heave

C. Intervention needed: Chest pain
   1. Additional subjective data to gather
      i. Pain characteristics
      ii. Constitutional manifestations
   2. Assessment
      i. Measure vital signs and pulse oximetry
      ii. Inspect
         a. Color
         b. Respiratory effort
         c. Fluid overload manifestations
      iii. Additional nursing actions
         a. Stay with client
         b. Stop client activity and place in semi-Fowler's
         c. Notify rapid response team
         d. Administer oxygen
         e. Ensure intravenous access
         f. Place client on ECG monitor
         g. Notify provider

V. Heart Sounds
- A. Prepare to assess
- B. Auscultation technique
  1. Bell vs. diaphragm
  2. Z pattern
  3. Video demonstration: Auscultation of heart sounds
- C. Expected findings
  1. Apical pulse rate
  2. S1 heart sounds
  3. S2 heart sounds
  4. Systole
  5. Diastole
- D. Expected variations
  1. Adolescent: S3 heart sound
  2. Older adult
     - i. Systolic murmurs
     - ii. S4 heart sound
     - iii. Orthostatic hypotension
- E. Unexpected findings
  1. Tachycardia
  2. Bradycardia
  3. Extra heart sounds
  4. Pericardial friction rub

VI. Extremities and Peripheral Pulses
- A. Prepare to assess
- B. Inspection technique
  1. Expected findings
     - i. Symmetrical in size and coloring
     - ii. Nail
       - a. Smooth surface
       - b. Nailbed coloration
  2. Expected variation
     - i. Cultural removal of hair
     - ii. Older adult: decreased body hair
  3. Unexpected findings
     - i. Asymmetrical size or coloration
     - ii. Diminished circulation manifestations
     - iii. Dilated veins
     - iv. Nailbed paleness or cyanosis
     - v. Clubbed nails
- C. Palpation technique
  1. Skin temperature
     - i. Video demonstration: Palpating skin temperature
  2. Skin turgor
     - i. Video demonstration: Assessing skin turgor
  3. Capillary refill
     - i. Video demonstration: Assessing capillary refill
  4. Pulses
     - i. Evaluate rate, rhythm, and strength
     - ii. Pulse locations
       - a. Radial
         - 1) Video demonstration: Palpating radial pulse
       - b. Brachial
         - 1) Video demonstration: Palpating brachial pulse
       - c. Femoral
         - 1) Video demonstration: Palpating femoral pulse
       - d. Popliteal
         - 1) Video demonstration: Palpating popliteal pulse
       - e. Posterior tibial
         - 1) Video demonstration: Palpating posterior tibial pulse
       - f. Dorsalis pedis
         - 1) Video demonstration: Palpating dorsalis pedis pulse

iii. Doppler ultrasound to evaluate pulses
a. Description
b. Technique
iv. Expected findings
a. Regular, moderate strength (+2) amplitude
b. Rapid recoil of skin
c. Capillary refill less than 2 seconds
v. Expected variations
a. Older adult
1) Diminished pulses due to underlying disease
2) Skin tone looser
vi. Unexpected findings
a. Manifestations of circulatory disorder: alteration in temperature, skin texture, or body hair
b. Poor skin turgor
c. Delayed capillary refill
d. Manifestations of cardiac event or heart failure: diaphoresis, nausea, vomiting, lightheadedness
e. Weak pulses
f. Edema
1) Assess for pitting

D. Intervention needed: Edema of lower extremities
1. Additional subjective data
i. Characteristics of edema
ii. Pain
iii. Inflammation
iv. Shortness of breath
2. Assessment techniques
i. Inspection
a. Location
b. Skin color
c. Venous distention
d. Presence of ulcers
e. Pattern of hair distribution
ii. Palpation
a. Degree of edema
b. Skin temperature
c. Pulse amplitude
3. Additional nursing actions
i. Measure circumference of extremity and compare
ii. Document
iii. Notify provider
iv. Encourage position changes

E. Intervention needed: Vascular ulcer
1. Additional subjective data
i. Duration
ii. Changes in size
iii. Drainage characteristics
iv. Dressing changes
v. Pain
2. Assessment techniques
i. Inspection
a. Location
b. Tissue color
c. Depth
d. Border presentation
e. Condition of surrounding tissues
f. Comparison of venous ulcer vs. arterial ulcer characteristics
ii. Palpation
a. Edema
b. Temperature of skin
c. Presence of pulses
3. Additional nursing actions
i. Wound cleansing
ii. Protective footwear
iii. Avoid excessive heat, and actions or clothing that restrict blood flow
iv. Notify provider

VII. Health Promotion
- A. Yearly screenings
  - 1. Cholesterol
  - 2. Glucose
  - 3. Blood pressure
- B. Exercise
  - 1. Strengthens heart muscle
  - 2. CDC recommendation: 150 min/week of moderate-intensity exercise
- C. Stress reduction
- D. Dietary changes
  - 1. Heart health diet
  - 2. Mediterranean diet
  - 3. Limit alcohol consumption
- E. Tobacco cessation

VIII. Summary
- A. Overview
  - 1. Gather tools
  - 2. Collect subjective data
  - 3. Collect objective data
  - 4. Recognize expected and unexpected findings
  - 5. Nursing actions for chest pain, edema, and vascular ulcers
  - 6. Health promotion activities
  - 7. Documentation and reporting
- B. Case study: Older adult who has chest pain
  - 1. Documentation activity

IX. Quiz

MODULE 8: ABDOMEN

I. Overview
- A. Assessment details
  - 1. Animated demonstration
  - 2. Review health history
  - 3. Assessment technique
    - i. Inspect, auscultation, palpation
    - ii. Percussion and deep palpation are only performed by advanced provider
  - 4. Tools
    - i. Stethoscope
    - ii. Clock
    - iii. Tape measure
  - 5. Anatomy and physiology review

II. Health History Interview
- A. Present health
  - 1. Abdominal pain
  - 2. Abdominal distention
  - 3. Medications
  - 4. Digestion problems
  - 5. Stool characteristics
  - 6. Appetite
  - 7. Substance use
- B. Past health history
  - 1. Gastrointestinal disease history
  - 2. Abdominal surgeries and colonoscopies
- C. Family history
  - 1. Gastrointestinal cancer or hepatitis
- D. Case study: Client who is vomiting
  - 1. Interview activity

III. Inspect
- A. Assessment technique
- B. Skin tone and appearance
  - 1. Expected findings
    - i. Smooth, dry, even skin tone

2. Expected variations
   i. Moles
   ii. Silver striae
   iii. Scars
3. Unexpected findings
   i. Yellow skin coloring
   ii. Glistening or taut skin
   iii. Pink or purple striae
   iv. Dilated blood vessels

C. Symmetry and masses
1. Expected findings
2. Expected variations
   i. Slight pulsations or peristaltic movements
   ii. Bulge due to pregnancy
3. Unexpected findings
   i. Bulging, masses, or asymmetry
   ii. Intense pulsations
   iii. Visible peristalsis with abdominal distention

D. Shape and contour
1. Assessment technique
2. Expected findings
   i. Flat, convex, or rounded
3. Expected variations
   i. Scaphoid
   ii. Rounded
   iii. Older adult
      a. Redistribution of adipose tissue
      b. Decreased abdominal muscle tone
4. Unexpected findings
   i. Marked concavity
   ii. Distention

E. Umbilicus
1. Expected findings
   i. Midline
   ii. Everted
2. Expected variations
   i. Piercings
   ii. Extraversion
   iii. Deeply sunken
3. Unexpected findings
   i. Variations in coloration
   ii. Presence of lesions
   iii. Herniation

IV. Auscultate
A. Overview
1. Auscultate prior to palpation and percussion

B. Preparation
1. Quiet environment
2. Stethoscope diaphragm

C. Assessment
1. Assessment technique
2. Video demonstration: Auscultation of the abdomen
3. Expected findings
   i. Bowel sounds 5 to 30 times per minute
4. Expected variations
   i. Borborygmus
5. Unexpected findings
   i. Hyperactive bowel sounds
   ii. Hypoactive bowel sounds
   iii. Absent bowel sounds
   iv. Vascular sounds

V. Palpate
A. Preparation

B. Assessment
1. Assessment technique
2. Video demonstration: Palpation of abdomen
3. Expected findings
   i. Nontender with relaxed muscles

4. Expected variation
   i. Voluntary guarding
   ii. Older adults
      a. Increased abdominal subcutaneous fat
      b. Decreased muscle tone
5. Unexpected findings
   i. Tenderness
   ii. Masses
   iii. Involuntary guarding

VI. Health Promotion
A. Exercise
1. 30 min/day of moderate exercise
2. Older adults
   i. Increased risk constipation
B. Diet
1. Balanced, high-fiber diet
2. 8 to 10 glasses water per day
3. MyPlate website
C. Testing
1. Colon cancer screening
   i. Fecal occult blood
   ii. Flexible sigmoid
   iii. Colonoscopy
   iv. Double contrast barium enema
D. Probiotics

VII. Summary
A. Overview
1. Prepare
   i. Tools
2. Collect subjective data
3. Collect objective data
4. Identify expected findings and variation and unexpected findings
5. Provide education on health promotion
6. Document and notify

B. Case study: Client who has abdominal pain and vomiting
1. Documentation activity

VIII. Quiz

MODULE 9: MUSCULOSKELETAL AND NEUROLOGICAL

I. Overview
A. Assessment details
1. Animated demonstration
2. Inspection and palpation
   i. Actions
      a. Inspect size, symmetry, alignment, ROM, presence of deformities or inflammation
      b. Observe gait for balance and symmetry
      c. Note reports of sensory alterations
      d. Palpate for warmth, tenderness, muscle tone, and crepitus
   ii. Unexpected findings
      a. Contracture
3. ROM
   i. Actions
      a. Active ROM
      b. Passive ROM
      c. Joint movements
         1) Flexion and extension
         2) Abduction and adduction
         3) Pronation and supination
         4) Circumduction
         5) Inversion and eversion
         6) Rotation (internal and external)
         7) Retraction and protraction
   ii. Expected findings
      a. Coordinated, smooth, and full ROM
      b. Symmetrical degrees of movement

iii. Unexpected findings
a. Limited ability to complete movement
b. Asymmetrical movement
c. Hesitancy of movement
4. Muscle testing
i. Actions
a. Perform ROM while applying opposing force
b. Grading of muscle testing
c. Variations in older adults
ii. Expected findings
a. Maintain joint position against resistance
b. Exert symmetrical resistance
c. Muscle testing grade greater than 3
iii. Unexpected findings
a. Discomfort while maintaining resistance
b. Asymmetrical muscle testing grade
c. Muscle testing grade 3 or less

B. Tools
1. Tape measure

C. Anatomy
1. Neurological system
2. Musculoskeletal system
i. Bones and joints
ii. Muscles
iii. Head and neck
iv. Shoulders
v. Elbow
vi. Wrist and hands
vii. Spine
viii. Hips
ix. Knees
x. Ankles and feet

II. Health History Interview
A. Musculoskeletal disorders
1. Presence of musculoskeletal and neuromuscular disorders
2. Function of musculoskeletal and neuromuscular systems
3. Localized assessment questions: joint pain, sensory loss, and trauma

B. Case study: Older adult who has knee pain
1. Interview activity

III. Head and Neck
A. Inspection
1. Assessment technique
2. Expected findings
i. Equal facial movement
ii. Muscles symmetrical
iii. Vertebral alignment and head erect
3. Expected variations
i. Older adults
a. Kyphosis
1) Neck hyperextension
4. Unexpected findings
i. Asymmetry of muscles
a. Measure difference

B. Palpation
1. Assessment technique
2. Expected findings
i. Spinous processes alignment
ii. Muscles firm and symmetrical
3. Expected variations
i. Jaw clicking without pain
4. Unexpected findings
i. Muscle inflammation
ii. Muscle spasms
iii. Diminished sensation

C. Assess ROM and muscle strength
1. Jaw movement
i. Lateral movement
ii. Protrusion
2. Neck movement
i. Flexion/extension/hyperextension
ii. Lateral flexion
3. Ability to turn head to side

IV. Shoulders and Upper Extremities
A. Shoulders
1. Inspect
i. Assessment technique
ii. Expected findings
a. Symmetrical in height, contour, and shape
iii. Unexpected findings
a. Inflammation, atrophy, deformities
b. Muscle spasms
c. Swelling of subacromial bursa
2. Palpate
i. Assessment technique
ii. Expected findings
a. Muscles firm, full, relaxed, and symmetrical
iii. Expected variations
a. Dominant arm slightly larger
iv. Unexpected findings
a. Edema, inflammation, atrophy, tenderness
b. Flattened shoulder joint
3. Assess ROM and muscle strength
i. Flexion/extension/hyperextension
ii. Internal/external rotation
iii. Abduction/adduction
iv. Video demonstration: Range of motion assessment of shoulders

B. Elbows
1. Inspect
i. Assessment technique
ii. Expected findings
a. Depression in olecranon process
b. Absence of inflammation
iii. Unexpected findings
a. Inflammation in olecranon process
b. Misalignment of articular surfaces of joint
2. Palpate
i. Assessment technique
ii. Expected findings
a. Symmetry of joint
b. Absence of inflammation or masses
iii. Unexpected findings
a. Inflammation
b. Displacement of olecranon process
c. Nodules or masses
3. Assess ROM and muscle strength
i. Flexion/extension
ii. Supination/pronation
iii. Expected variations
a. Symmetrical slightly decreased degree of extension or hyperextension

C. Wrists and hand
1. Inspect
i. Assessment technique
ii. Expected findings
a. Symmetrical appearance
b. Slight extension in wrist
c. Straight fingers in alignment with wrist
iii. Expected variation
a. Older adult: looser skin or variation in skin tone

- iv. Unexpected findings
  - a. Edema or nodule of joints
  - b. Ulnar deviation
  - c. Misshapen fingers or inability to fully extend
  - d. Ganglion cyst
- 2. Palpate
  - i. Assessment technique
  - ii. Expected findings
    - a. Smooth symmetrical bones and joints
  - iii. Unexpected findings
    - a. Inflammation or nodules
- 3. Assess ROM and muscle strength
  - i. Flexion/extension/hyperextension of wrist
  - ii. Radial/ulnar flexion
  - iii. Flexion/extension fingers
  - iv. Abduction/adduction fingers and thumb
  - v. Opposition of thumb to fingers
  - vi. Grip strength of hands

V. Spine

- A. Symmetry, shape, and curvature
  - 1. Assessment technique
    - i. Inspect
      - a. Gait, posture, and head position
      - b. From side: spinal curves
      - c. Spinal curves and alignment of shoulders, iliac crest, gluteal fold, knees, and feet
  - 2. Expected findings
    - i. Alignment and symmetry of head, shoulders, iliac crest, gluteal fold, knees, and feet
    - ii. Spine concave in cervical and lumbar area and convex in thoracic area
    - iii. Symmetrical appearance and movement of muscles
  - 3. Expected variations
    - i. Older adult
      - a. Height loss after age 80
      - b. Osteoporosis
      - c. Gait changes
        - 1) Smaller steps and widened stance
  - 4. Unexpected findings
    - i. Lateral deviation of head or spine
    - ii. Asymmetry of hips or shoulders
    - iii. Exaggerated curvature of spine
    - iv. Unstable, ataxic, or shuffling gait
- B. Muscle alignment and spinous process
  - 1. Assessment technique
    - i. Palpate spinous process
  - 2. Expected findings
    - i. Straight, aligned spinous process without pain or tenderness
  - 3. Unexpected findings
    - i. Curvature
    - ii. Tenderness
    - iii. Spasms of paravertebral muscles
- C. Assess ROM
  - 1. Flexion of spine
  - 2. Lateral flexion of spine
  - 3. Hyperextension of spine
  - 4. Rotation of spine
- D. Intervention needed: Sensory loss
  - 1. Gather subjective data
  - 2. Assessment
    - i. Inspect skin
    - ii. Palpate pulses
    - iii. Assess sensory functioning
  - 3. Additional nursing actions
    - i. Observe ambulation
    - ii. Fall risk
    - iii. Avoid extreme temperature
    - iv. Monitor skin integrity
  - 4. Documentation

- VI. Hips and Lower Extremities
  - A. Hips and knees
    - 1. Inspect
      - i. Assessment technique
        - a. Inspect gait
        - b. Inspect alignment
        - c. Inspect skin color and muscle symmetry
      - ii. Expected findings
        - a. Smooth coordinate gait
        - b. Symmetry of iliac crests, gluteal folds, knees, shins and muscles
      - iii. Expected variations
        - a. Older adult: slight persistent flexion of knees and hips
      - iv. Unexpected findings
        - a. Inflammation
        - b. Nodules
        - c. Movement limitations
        - d. Absence of hollows adjacent to patella
        - e. Misalignment of shin
        - f. Contracture
    - 2. Palpate
      - i. Assessment technique
        - a. Palpate iliac crest and hip joints for tenderness
        - b. Palpate muscles, patellar hollows, and tibiofemoral joint
      - ii. Expected findings
        - a. Joints appear smooth and stable without pain
        - b. Absence of nodules
      - iii. Expected variations
        - a. Older adult: flexion of hips
      - iv. Unexpected findings
        - a. Tenderness, pain, crepitus
        - b. Edema or nodules
    - 3. ROM and muscle strength
      - i. Flexion/extension of knee
      - ii. Flexion/extension/hyperextension of hip
      - iii. External/internal rotation of hip
      - iv. Abduction/adduction of hip
      - v. Video demonstration: Range of motion assessment of hip and knee
  - B. Ankles and feet
    - 1. Inspect
      - i. Assessment technique
        - a. Non-weight-bearing
        - b. Weight-bearing
      - ii. Expected findings
        - a. Feet and toes straight
      - iii. Expected variations
        - a. Decreased or exaggerated longitudinal arch
      - iv. Unexpected findings
        - a. Inflammation, lesions, ulcers, corn, calluses
        - b. Misalignment of toes
    - 2. Palpate
      - i. Assessment technique
        - a. Palpate ankle, foot, and toes
      - ii. Expected findings
        - a. Smooth, firm bones
        - b. Joint spaces slightly hollow with smooth surfaces
      - iii. Unexpected findings
        - a. Edema, pain, joint swelling
    - 3. ROM and muscle strength
      - i. Plantar flexion
      - ii. Dorsiflexion
      - iii. Eversion/inversion
      - iv. Flexion/extension/hyperextension

4. Intervention needed: Trauma of an extremity
   i. Overview
      a. Strain
      b. Sprain
      c. Fracture
   ii. Gather subjective data
   iii. Assessment
      a. Inspect
         1) Size, contour, symmetry, skin integrity
         2) Skin color
      b. Palpate
         1) Tenderness and edema
         2) Bone alignment
      c. Neurovascular assessment
         1) Temperature
         2) Sensation
         3) Pulse strength
         4) Capillary refill
         5) ROM
            i) Only distal to injured area
   iv. Additional nursing actions
      a. Protect
      b. Rest
      c. Intermittent cold therapy
      d. Compression
      e. Elevate
      f. Neurovascular assessments at regular intervals
   v. Documentation

VII. Health Promotion
   A. Ergonomics
      1. Proper techniques for desk work
      2. Proper techniques for lifting
   B. Injury prevention
      1. Car safety
      2. Helmets
      3. Tripping hazards
      4. Rest periods
      5. Body mechanics
   C. Exercise
      1. Health benefits
      2. Isotonic exercises
      3. Resistive isometric
      4. Weight-bearing
   D. Calcium and vitamin D
      1. Actions
      2. Sources
      3. Daily requirements

VIII. Summary
   A. Overview
      1. Function of musculoskeletal and neurological systems
      2. Collect subjective data
      3. Collect objective data
         i. Tools
      4. Inspection
      5. Palpation
      6. ROM and muscle strength
      7. Neurosensory evaluation
   B. Case study: Client who has elbow pain
      1. Documentation activity

IX. Quiz

MODULE 10: HEAD-TO-TOE ASSESSMENT

I. Overview
- A. Animanted demonstration
- B. Assessment details
  1. Setting
  2. Techniques of inspection, palpation, and auscultation
  3. Organization strategies
     - i. Systematic approach
     - ii. Combine system assessments
     - iii. Focused assessment
- C. Tools
  1. Thermometer
  2. Watch
  3. Pulse oximeter
  4. Sphygmomanometer
  5. Scale
  6. Height measurement device
  7. Stethoscope
  8. Penlight
  9. Gown or drape sheet
  10. Gloves
- D. Orientation questions
  1. Self
  2. Time
  3. Place

II. General Appearance
- A. Overview
  1. General information about client's health, nutrition, mobility, and emotional status
- B. Inspect
  1. Timing: while asking reason for seeking care or when collecting data on vital signs
  2. Note overall appearance, hygiene, grooming, skin color, posture, body language, mobility
  3. Note mental status, mood, affect, and the ability to speak, hear, and follow directions

III. Vital signs and baseline measurements
- A. Combine system assessments
  1. During height and weight, assess mobility and BMI
  2. When collecting blood pressure, note skin integrity of arms
  3. After collecting radial pulse, assess capillary refill and edema in hands
  4. When counting respirations, note characteristics
  5. When applying pulse oximeter, inquire about pain

IV. Head and Face
- A. Inspect
  1. Head
     - i. Size and shape of skull
     - ii. Scalp and hair for lesions and color
     - iii. Symmetry of facial expression
     - iv. Pigment alterations
     - v. Hair characteristics
  2. Eyes, eyelids, and eyebrows
     - i. Skin condition, symmetry, color, edema
     - ii. Color and condition of sclera and conjunctiva and iris
     - iii. Pupillary reaction to light
     - iv. Symmetry of eye movements
  3. Nose
     - i. External: color, appearance, and lesions
     - ii. Internal: color and edema of mucosa
     - iii. Drainage: color, consistency, and odor
- B. Palpate
  1. Temporomandibular joints
     - i. Pain
     - ii. Difficulty with movement

2. If client reports
   i. Ear pain: palpate outer ear and mastoid area
   ii. Nasal congestion: palpate sinus area
3. External nose
   i. Tenderness
   ii. Patency of each nostril

C. Assess hearing
1. Client understanding of questions
2. Client responding to questions
3. Client's body language when listening

V. Neck
A. Inspect
1. Upright head position
2. Trachea location
3. Lumps, lesions, or trauma
4. Range of motion
5. Muscle strength
6. Carotid arteries and veins for distention

B. Palpate
1. Each carotid pulse individually for strength

C. Case study: Client who has neck weakness
1. Documentation activity: Objective assessment

VI. Upper Extremities
A. Inspect
1. Skin condition
2. Symmetrical size
3. Symmetrical joints
4. Fingernails

B. Palpate
1. Temperature, texture, and moisture
2. Brachial and radial pulses
3. Capillary refill
4. Warmth, tenderness, or irregularity

C. ROM and muscle strength
1. Compare for symmetry

VII. Anterior chest
A. Inspect
1. Posture and breathing pattern
2. Shape of chest and costal margin of rib cage
3. Symmetry of chest expansion
4. Point of maximal impulse for pulsation
5. Skin color, turgor, and condition
6. Breast for symmetry, color, and skin condition
7. Nipples for rashes, discharge, or retraction
8. Axilla for lumps, rashes, or pigmentation changes

B. Auscultate
1. Heart sounds
   i. Aortic valve
   ii. Pulmonary valve
   iii. Tricuspid valve
   iv. Mitral valve
2. Breath sounds
   i. Begin midclavicular and move downward in ladder fashion
   ii. Auscultate inspiration and expiration

VIII. Posterior and Lateral Chest
A. Inspect
1. Chest shape, symmetry of muscles, and movement of rib cage during inspiration
2. Note alignment of spine and symmetry of scapula
3. Breathing posture, pattern, and accessory muscle use
4. Skin condition

- B. Auscultate
  1. Begin at C7 intercostal space and move downward in ladder fashion
  2. End with auscultating axillary and midaxillary lines

IX. Abdomen
- A. Inspect
  1. Color and characteristics of skin and blood vessels
  2. Note contour, shape, and symmetry
  3. Observe for presence of visible peristalsis or pulsations
- B. Auscultate
  1. Perform prior to palpation
  2. Auscultate in RLQ first
  3. If no bowel sounds present in RLQ, process to auscultate other three quadrants
- C. Palpate
  1. Note muscle tone and tenderness
  2. Palpate client-identified discomfort areas last
- D. Case study: Older adult who reports bloating and constipation
  1. Documentation activity: ISBARR

X. Lower extremities
- A. Inspect
  1. Color and condition of skin
  2. Hair distribution
  3. Venous distention
  4. Symmetry of size and color
  5. Condition of toenails
- B. Palpate
  1. Skin temperature, texture, moisture level, and tenderness
  2. Posterior tibial and dorsalis pedis pulses bilaterally
  3. Capillary refill
- C. ROM and muscle strength
  1. Assess and compare bilaterally

XI. Summary
- A. Use skills of inspection, palpation, and auscultation
- B. Begin general survey when first meeting client
- C. Combine system assessments to increase efficiency
- D. Alter assessment based on client health or needs
- E. Accurate and concise documentation and reporting
  1. Objective data is factual
  2. Subjective data should have quotation marks identifying client statement
  3. Notify provider of unexpected findings
- F. Case study: Client who reports headache, fever, and chills
  1. Identify when additional information is needed
  2. Documentation activity: Practice narrative charting

XII. Quiz

MODULE 11: BREAST AND LYMPHATICS

I. Overview
- A. Assessment details
  1. Inspect breast and axillae during anterior chest assessment
  2. Advanced practice provider to perform in-depth inspection and palpation
- B. Anatomy and physiology
  1. Breast
  2. Lymphatic system

II. Health History Interview
  A. Present health condition
    1. Pain, swelling, or changes in appearance of breast, axillae, or nipples
    2. Nipple discharge
    3. Breast changes related to menstrual cycle
    4. Enlarged lymph nodes
  B. Past health conditions
    1. Previous breast disease
    2. Breast trauma, surgery, or biopsies
    3. Breast examinations
  C. Family history
    1. Breast cancer

III. Breast
  A. Skin color and condition
    1. Expected findings
      i. Smooth and consistent coloring
    2. Expected variations
      i. Bilateral vein visibility in obesity and pregnancy
      ii. Striae
      iii. Inflammation on underside of large breasts
    3. Unexpected findings
      i. Unilateral rash, skin thickening, dimpling, venous distention, or edema
      ii. Peau d'orange appearance
      iii. Inflammation or edema
  B. Shape and size
    1. Expected findings
      i. Approximately same size
      ii. Smooth contour
    2. Expected variations
      i. Scars from breast surgeries
      ii. Gynecomastia in adolescents or with weight gain
      iii. Older adults
        a. Gynecomastia in males
        b. Female breasts flattened and pendulous
    3. Unexpected findings
      i. Significant differences in size or presence of a mass
      ii. Difference in contour
      iii. Dimpling or retraction
      iv. Change in contour with movement

IV. Areolas and nipples
  A. Skin condition
    1. Expected finding
      i. Areola round or oval shaped with small bumps visible
      ii. Nipple protrudes
        a. Flat or inverted nipple present since puberty
      iii. Skin smooth and intact
    2. Unexpected finding
      i. Dry scaling rash on nipple and areola
      ii. Discharge from nipple in client who is not lactating
  B. Symmetry, alignment, and orientation
    1. Expected finding
      i. Nipples symmetric and positioned in same plane of breast and oriented in same direction
    2. Expected variation
      i. Supernumerary nipple
    3. Unexpected finding
      i. Change in nipple presentation or orientation

V. Axillae
  A. Skin color and condition
    1. Expected finding
      i. Smooth and intact
    2. Unexpected findings
      i. Edema in axilla or arm
      ii. Rash
      iii. Deeply pigmented, very smooth skin
      iv. Lymphedema after mastectomy
  B. Lymph nodes
    1. Expected finding
      i. Not visible to inspection
      ii. No report of discomfort
    2. Unexpected finding
      i. Visible nodes
  C. Interventions needed for unexpected breast findings
    1. Manifestations of breast cancer
    2. Subjective data to collect for client who reports nipple discharge
    3. Subjective data to collect for client who has edema in axillae or arm
    4. Document and notify provider

VI. Health Promotion
  A. Overview
    1. Lack of consensus for frequency of breast exams and mammogram screenings
    2. Client should be familiar with own breast tissue
    3. Clients who have increased risk of breast cancer should begin screenings earlier
  B. Breast self-exam
    1. Menstruating clients should palpate breasts 4 to 7 days after start of menstrual cycle
    2. Clients who have had breast augmentation should follow same procedures for breast examination
    3. Video demonstration: Instructions for breast assessment
    4. Expected findings
      i. Breasts approximately same size and shape with smooth contour
      ii. Absence of dimpling, rashes, edema, lumps, or tenderness in breast or axilla
      iii. Clients who have large breasts may note a firm ridge of tissue along lower portion of breast due to tissue compression
    5. Unexpected findings
      i. Changes in breast appearance or texture
      ii. Presence of tenderness, nipple drainage, or inflammation
  C. Tests
    1. Mammogram recommendations vary based upon client's risk of breast cancer
    2. Clients who have a low risk of breast cancer: screening mammogram every 1 to 2 years beginning at age 45
    3. Clients who have an increased risk of breast cancer: screening mammograms beginning at age 40
    4. Continue with screenings until age 75 or longer if client's life expectancy is at least 10 years
  D. Document
    1. Document in medical record health teaching on breast self-examination was provided
      i. Client returns demonstration
      ii. Provide printed instruction to take home

VII. Summary
- A. Visual inspection of breast and axilla
- B. Subjective information to collect
- C. Expected findings include symmetry of size, color, shape, and contour; absence of rashes or drainage from nipple
- D. Encourage client to become familiar with own breast tissue and follow provider recommendations for screening mammograms

VIII. Quiz

MODULE 12: RECTUM AND GENITOURINARY

I. Overview
- A. Assessment details
  1. Explain assessment to client
  2. Respond to questions and concerns before beginning assessment
  3. Provide privacy and maintain modesty during examination
  4. Standard precautions, handwashing, and clean gloves for the assessment
  5. Health promotion teaching about sexual health
  6. Palpation of genitalia for unexpected findings is an advanced assessment technique
- B. Anatomy and physiology

II. Health History Interview
- A. Present health
  1. Urinary system pain, urine characteristics, difficulty urinating, discharge, lesions, or edema
     - i. Unexpected findings
       - a. Burning, urgency, frequency
       - b. Older adults: UTI can cause disorientation and confusion
       - c. Incontinence
       - d. Suprapubic pain
  2. Anus
     - i. Anal pain, itching, burning
     - ii. Stool color and characteristics
  3. Reproductive system
     - i. Gender identity and sexual practices
     - ii. Frequency of provider genitalia examinations
- B. Past health history
  1. Urinary system
     - i. History of UTI
     - ii. Personal or family history of prostate or kidney problems
  2. Anus
     - i. History of anal problems
     - ii. Rectal or anal surgery
  3. Reproductive system
     - i. Personal or family history of cancer of reproductive tract
     - ii. Surgery of reproductive tract
     - iii. Women
       - a. Child-bearing age
         1) Menstrual history
            - i) Menarche, last menstrual period, cycle, excessive bleeding or cramping
         2) Obstetrical history
            - i) Pregnancies, abortions, living children, pregnancy complications, contraceptives
       - b. Over age 40
         1) Menopausal manifestations
         2) Hormone replacement therapy
     - iv. Men
       - a. Testicular changes: lumps, bulges, swelling, or changes

III. Female Genitourinary System
- A. Preparation
  - 1. Positioning
  - 2. Improve client comfort
    - i. Void prior to exam
    - ii. Elevate HOB for eye contact
    - iii. Stirrup positioning
    - iv. Explain step prior to performing
    - v. Gentle but firm touch
    - vi. Talk to client throughout exam
- B. Inspection
  - 1. Mons pubis
    - i. Expected findings
      - a. Even distribution of hair in an inverted triangle pattern
      - b. Clear skin with even color
    - ii. Expected variations
      - a. Adolescents: varied from soft straight sparse hair that covers to vulva to coarse curly hair that densely covers the mons pubis, vulva, and inguinal folds
      - b. Older adults: sparse pubic hair with dry skin and mucous membranes and atrophy of mons pubis, labia, and clitoris
    - iii. Unexpected findings
      - a. Swelling or redness
      - b. Patchy or complete hair loss
      - c. Lesions or ulcerations
      - d. Pubic lice
  - 2. Labia, vestibule and perineum
    - i. Expected findings
      - a. Inside of labia majora and minora darker than overall skin tone
      - b. Labia majora
        - 1) No vaginal birth: labia appear full with labia meeting midline
        - 2) After vaginal birth: labia have open wrinkled appearance
      - c. Labial minora: symmetrical and smooth
      - d. Clitoris: smooth, moist, round, and located between labia minora folds
      - e. Urethral opening: midline and star- or slit-shaped
      - f. Vaginal introitus: slit or larger opening; may have uneven edges due to remnants of hymen membrane
      - g. Perineum: smooth
    - ii. Expected variations
      - a. Perineum may have scar from childbirth
      - b. Older adults: postmenopausal changes of atrophy and dryness
    - iii. Unexpected findings
      - a. Inflammation, edema, ulceration, and excoriation
      - b. Discolored or malodorous vaginal discharge
      - c. Tenderness, pain, or bruising
      - d. Leukoplakia
      - e. Lesions, lumps, or nodules
      - f. Cervix appearing at vaginal opening
      - g. Bartholin gland abscess

IV. Male Genitourinary System
- A. Preparation
  - 1. Positioning
- B. Inspect
  - 1. Penis
    - i. Expected findings
      - a. Skin slightly wrinkled
      - b. Large dorsal vein visible on shaft of penis
      - c. Glans smooth
        - 1) Circumcised
        - 2) Intact

ii. Unexpected findings
a. Inflammation
b. Lesions or ulcerations
c. Nodules
d. Pubic lice
e. Phimosis

2. Urethral meatus
i. Expected findings
a. Located midline in center of glans
b. Smooth and similar in color to surrounding area
ii. Unexpected findings
a. Hypospadias
b. Epispadias
c. Discharge, redness, or swelling

3. Scrotum and testes
i. Expected findings
a. Scrotal skin darker coloring than overall skin tone
b. Left testicle hangs slightly lower than right
c. Equal in size
d. Freely movable
ii. Expected variations
a. Adolescent: testes and scrotum enlarge to adult size
b. Older adult
1) Testes decrease in size
2) Scrotal sac becomes pendulous
iii. Unexpected findings
a. Edema, redness, or tenderness
b. Nodules or masses
c. Small, soft testes (less than 3.5 cm)
d. Absent testes

4. Inguinal and femoral areas
i. Expected findings
a. Symmetrical and flat
ii. Unexpected findings
a. Bulges, swelling, pain

C. Intervention needed: Genital lesions and discharge
1. Subjective data
i. When did lesion appear
ii. Exposure to STIs
iii. Genital discharge
iv. Pain or feelings of abdominal fullness
2. Inspect
i. Note appearance, clusters, location, and size
ii. Note color, odor, and consistency of discharge
3. Additional actions
i. Document and notify provider

V. Health Promotion
A. Overview
1. Decrease risk for reproductive-related diseases and conditions
B. Vaccines
1. Human papillomavirus
i. Associated with cancer of cervix, penis, and anus
ii. Three immunizations over 6 months beginning at age 11 for all genders
iii. Most beneficial if administered prior to becoming sexually active
2. Hepatitis B virus
i. Spread through contact with infected blood, semen, and other body fluids
ii. Recommended for clients in high-risk settings, health care workers, HBV-endemic area, chronic liver disease, and HIV infection
C. Safe sexual practice
1. Be mindful of client's lifestyle, preferences, and cultural and religious beliefs
i. Some methods prevent conception but not STI

2. Contraception
   i. Natural methods: withdrawal, fertility tracking, periodic abstinence
   ii. Barrier methods: condoms, diaphragms, sponges
   iii. Pharmacological methods: oral hormonal and injectable hormone contraceptives; vaginal spermicides
   iv. Surgical interventions: vasectomies and tubal ligation

D. STI prevention and screening
   1. Behavioral counseling for adolescents and adults about STI
      i. Prevalence
      ii. Transmission
      iii. Condoms to reduce transmission
      iv. HIV screening
         a. High risk: yearly screening
         b. Low risk: one-time screening
      v. Chlamydia and gonorrhea annual screening
         a. Sexually active clients younger than 25 years
         b. Multiple sexual partners or possible exposure

E. Routine examinations
   1. Colorectal cancer screening
      i. Every client beginning at age 50
         a. Positive family history increases risk of developing colorectal cancer
      ii. Screening options
         a. Fecal occult blood once per year
         b. Flexible sigmoidoscopy and digital rectal exam every 5 years
         c. Double-contrast barium enema and digital rectal exam every 5 years
         d. Colonoscopy and digital rectal exam every 10 years
   2. Females
      i. Average risk, sexually active, age 21 to 65 years
         a. Yearly pelvic exam
         b. Pap smear every 3 years
      ii. Cease pelvic exams and Pap smear if cervix removed or client is older than 65 years
   3. Males
      i. Prostate and genitalia examination
         a. Yearly to detect cancer lesions
            1) Palpation of prostate
         b. Older adults
            1) May experience benign enlargement of prostate
               i) Changes in frequency and urgency of urination
      ii. Prostate-specific antigen (PSA) screening/digital rectal exam (DRE)
         a. Average risk
            1) Begin PSA screenings and optional DRE at age 50
               i) Abstain from ejaculation for 2 days prior to PSA
            2) Discontinue at age 70 or if life expectancy less than 10 years
         b. High risk
            1) Begin PSA screenings and option DRE at age 40 or 45
      iii. Testicular self-examination
         a. Annual by provider
         b. Monthly by client
         c. Video demonstration: testicular self-examination

VI. Summary
- A. Collect subjective data
- B. Prepare client for examination by explaining and positioning
- C. Perform additional actions for unexpected findings
  1. Bladder distention
  2. Genital lesions
- D. Provide health promotion teaching
  1. Sexual health and behavior counseling
  2. Vaccinations, screenings, and self-examinations
  3. Contraceptive use
  4. STI screening and counseling
- E. Document and notify provider of unexpected findings

VII. Quiz