Unit V

NURSING CARE OF PHYSIOLOGIC AND PSYCHOLOGICAL DISORDERS

The Integument

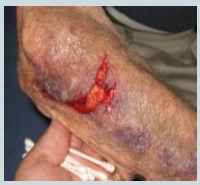
CHAPTER 12

Normal Physiological Changes

- INTEGUMENTARY - SKIN
  - Loss of turgor
  - Decreased sweat gland
  - Declined hair growth
  - Increased facial hair (females)
  - Loss of subcutaneous fat
  - Frail capillaries
  - Spotty pigmentation
  - Decreased calcium deposits in nails

Skin Changes Associated with Aging Occur in the Third Decade

- Epidermis
  - Less moisture in cells → dry, rough appearance (xerosis)
  - >50 years epidermal mitosis slows → longer time to healing + potential for infection
  - Rete ridges flatten → easy skin tearing
  - Melanocytes decrease → pale complexion + increased UV damage + scattered pigmented areas (age/liver spots –senile/ solar lentigines)



Skin Tears

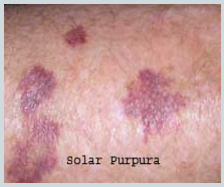
- Prevention
  - Keep environment free of obstacles
  - Keep environment well lighted
  - Keep skin moist
  - Use paper tape and remove it cautiously
    - Substitute tape with gauze or stockinette
  - Encourage long sleeves and long pants

Skin Tears

- Management
  - Clean with normal saline or other nontoxic cleaner
  - Pat or air dry
  - Gently place the torn skin in its approximate normal position
  - Apply dressing (saline, foam, gels) and change per protocol or product requirements
  - Document the assessment and intervention
  - Photograph if permitted

Skin Changes Associated with Aging Occur in the Third Decade

- Dermis
  - Elastin quality decreases + quanity increases → wrinkling + sagging
  - Collagen disorganized → loss of turgor
  - Decreased vascularity → pale complexion
  - Thinning capillaries → easy damage → senile purpura



Eccrine and Apocrine Glands

- Decrease in size
- Decrease in number
- Decrease in function

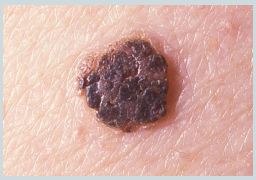
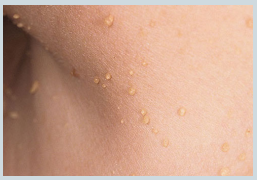
Considerations for Darker Skin

- Inflammation may be difficult to detect
- Best to palpate for warmth and hardness/ smoothness
- Ecchymosis appears as dark areas or purple lesions
- Press a glass slide gently over the area
  - Lighter color – erythema
  - No color change - ecchymosis

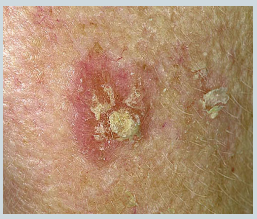
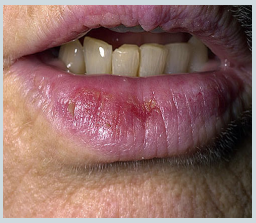
Normal Physiological Changes

- SKIN INTERVENTIONS
  - Assess for lesions
  - Fewer baths (2-3 /week)
  - Avoid excess sun exposure
  - Use lotion, bath oil, etc
  - Avoid drying agents
  - Change position every 1-2 hours if on bed rest
  - Monitor and report changes
  - Stop smoking

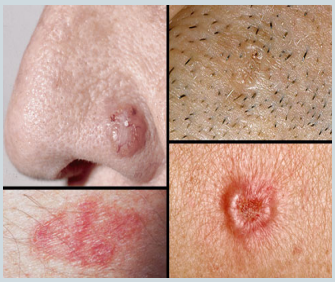
Benign Changes

Seborrheic Keratosis	Acrocordons (Skin Tags)
	

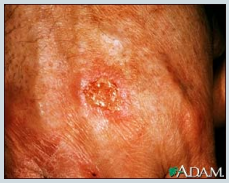
Pre Cancerous

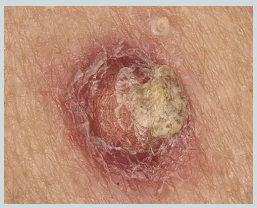
Actinic Keratosis	Actinic Chelitis
	

Basal Cell Carcinoma

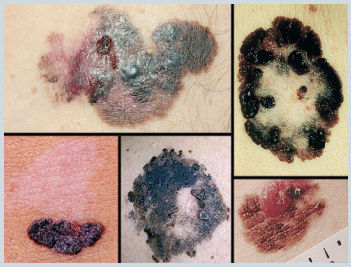


Squamous Cell Carcinoma



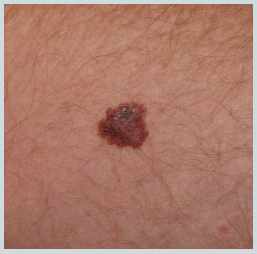


Malignant Melanoma



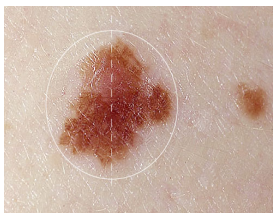
Malignant Melanoma (MM)

- Most serious form of skin cancer
- Responsible for 75% of all skin cancer deaths
- Appearance
  - A = asymmetrical
  - B = irregular border and bleed easily
  - C = color change
    - Black, purple, brown, or red
  - D = diameter > 6 mm
  - E = irregular elevation
- Location
  - Men = upper back
  - Women = lower legs

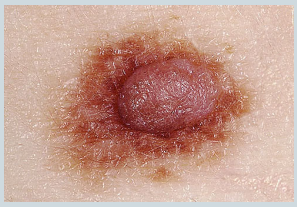


KNOW YOUR ABCDE' S

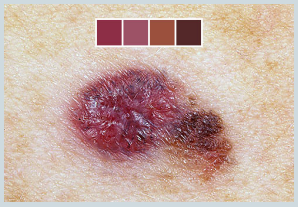
- A – asymmetry
- B – borders
- C – color
- D – diameter
- E – elevation
- E - evolution



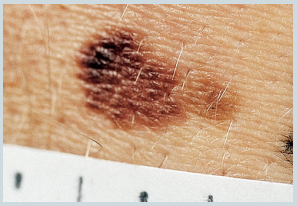
Borders



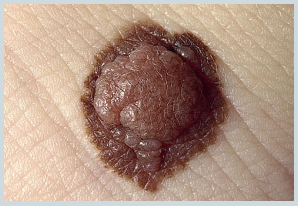
Color - Varigated



Diameter



Elevation

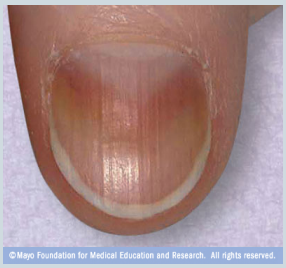


Hair Changes with Aging

- Altered melanocytes → nonpigmented (gray) hair follicles
- Declining hormones leads to
  - Pubic + axillary hair loss
  - Facial hair in women
  - Hair in ears + nose hair in men
  - Balding in men by 50 years of age

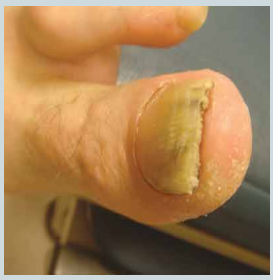
Nails

- Dull, yellow, or gray coloration
- Growth slows → thicker nails
- Longitudinal striations



Nail Problems

- Fungal infection (Onychomycosis)
  - Usually on big toe
  - Appearance is thick, discolored, and protrudes from nail bed



PRESSURE ULCERS

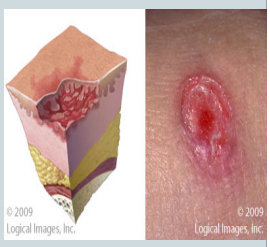
Three Types of Pressure Ulcers

1. Necrosis of the epidermis or epidermis – may or may not progress to deep lesion
   - Cause:
2. Deep or malignant pressure ulcer
   - Cause:
3. Full-thickness wounds of dry black eschar
   - Cause:

Pressure Ulcers

Stage 1 – Nonblanchable Erythema

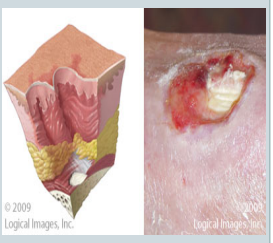
Stage II: Partial-Thickness Skin Loss



Pressure Ulcers (continued)

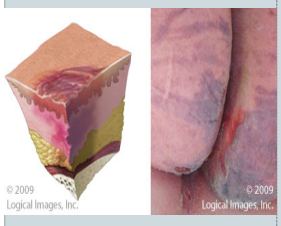
Stage III: Full-Thickness Skin Loss

Stage IV: Full-Thickness Tissue Loss

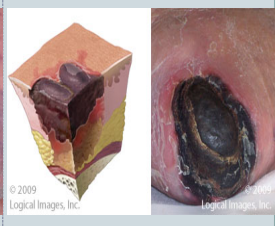


Pressure Ulcers (continued)

Suspected Deep Tissue Injury (SDTI) – Depth Unknown



Unstageable: Full-thickness skin or tissue loss – depth unknown



Wound Healing

- Inflammatory phase
- Proliferation phase
- Maturation phase
- Delayed healing

Prevention & Modification of Pressure Ulcers

- Braden Scale (p368-369)
- Reposition every 2 hours
- Use pillows or wedges to prevent skin from touching bed at trochanter, heels and ankles
- Sitting should be limited to 2 hours at a time around mealtimes
- Only place at a 90 degree angle during eating
- Mattress surface should be based on assessment or diagnosis

Treatment of Pressure Ulcers

- Assessing and staging wound
- Debriding necrotic tissue – chemical or mechanical
- Cleansing the wound
- Applying dressings to provide a moist wound bed
- Preventing and treating infection
- May involve different topical preparations
- Wound vac
- Hyperbaric oxygen

The Mouth and Oral Cavity

CHAPTER 13

Multiple Factors Contribute to Poor Oral Hygiene -
MOUTH & ORAL CAVITY

- Number and condition of dental restorations
- Recession of the gums → changing alignment between adjacent teeth
- Impaired visual acuity
- Possible loss of manual dexterity
- Restricted range of motion
- Effects of medications on oral health

Normal Changes of Aging

- Taste buds decrease in number → loss of ability to taste (hypogeusia)
- Salivary function decreases → less saliva production
- Gum recession → teeth vulnerable to cavities below gums
- Tooth enamel is worn away or abraded → staining + damage + cavities
- With tooth loss and malocclusion→ avoidance of foods high in fiber → poor nutrition→ more illness

Common Oral Diseases and Conditions

- 30% > 65 Years are edentulous
  - Varies by region
  - Affects multiple areas of life
    - Nutrition
    - Self-esteem
      - Speech
      - Facial appearance
      - Source of halitosis

Xerostomia

- Associated with medications → decreased salivary flow
  - Prescription and over-the-counter medications
    - Antihistamines
    - Diuretics
    - Antipsychotics
    - Antidepressants
    - Antihypertensives
- Saliva contains antimicrobial components + minerals → rebuild tooth enamel attacked by decay causing bacteria

Barriers to Mouth Care

- Lack of physical or financial resources
- Believe care is no longer needed if edentulous
- Caregiver concerns in providing appropriate oral care
  - Lack of training and knowledge about importance
  - Heavy workloads
  - Resistance of patient with dementia
  - Mouth care viewed as an unpleasant task

Nursing Interventions to Improve Xerostomia

- Urging regular dental evaluation
- Providing low-sugar diets
- Providing mouth rinses
- Providing sugar-free chewing gum, hard candies, and mints
- Providing artificial saliva and mouth lubricants (Salivart™ and Xero-Lube™)
- Providing bedside humidifiers
- Providing dietary modifications including
  - Avoidance of foods difficult to chew or swallow
  - Careful use of fluids while eating

Common Mouth Care Products That Are "No-No' s"

- Lemon glycerin swabs → hypertonic → dehydration of mucous membranes
- Hydrogen peroxide → oxidation → cell and tissue destruction
- Mouth rinses
  - Many contain alcohol and can cause pain or burning for patients with oral problems

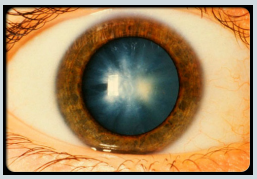
Sensation: Hearing, Vision, Taste, Touch and Smell

CHAPTER 14

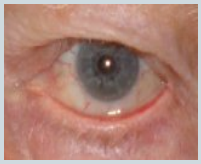
Normal Physiological Changes SENSORY - VISION

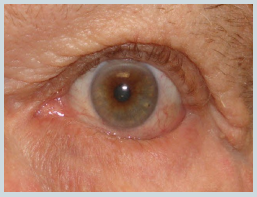
- Eyes
  - Presbyopia
  - Visual field narrowing
  - Small pupil size
  - Yellowing of lens
  - Opacity of lens
  - Distorted depth perception
  - Development of arcus senilis
  - Reduced lacrimal secretions

Arcus Senilis vs. Cataract

Arcus Senilis	Cataract
	

Ectropian & Entropian





Normal Physiological Changes

- SENSORY: EYE INTERVENTIONS
  - Wear eye glasses and keep clean
  - Increase amount of light when reading and high traffic areas
  - Use red colored tape or paint on step edges
  - Allow extra time for eyes to accommodate to darkness
  - Avoid nighttime driving
  - Wear dark glasses when outdoors
  - Have regular eye exam
  - Have vision and driving ability screened at regularly

Blindness

- Cataracts
- Age-related macular degeneration (ARMD)
- Glaucoma
- Diabetic retinopathy

Macular Degeneration

- Age related changes to macula
- CLASSIFICATIONS
  - Wet
  - Dry
- ASSESSMENT
  - Blurred central vision
- TREATMENT
  - Laser/photodynamic tx for wet type; low vision optical aids
- NURSING INTERVENTIONS
  - Teaching

Eye disorders

Cataract

- Opacity or cloudiness of normal clear crystalline lens
- CLASSIFICATIONS
  - Age-related
    - Physiological changes
  - Associated
    - Secondary to disease: Diabetes, trauma, radiation, etc
  - Toxic
    - Side effects of drugs: Steroids, compazine

Cataract Cont' d

- ASSESSMENT
  - Early: Blurred vision; glare, dimness & decreased color perception
- TREATMENT
  - Medical: Corrective lenses
  - Surgical: Extraction
- NURSING *INTERVENTIONS*
  - Discharge teaching
    - Avoid bending at the waist, lifting heavy objects, straining at stool
    - Report severe pain (increased intraocular pressure), conjunctival injection, vision loss, sparks, flashes, floaters, nausea, vomiting

Glaucoma

- Increase in intraocular pressure leads to damage to the optic nerve
- TYPES
  - Chronic; primary or open-angle
  - Acute; angle-closure; medical emergency
- RISK FACTORS:
  - Family history
  - Age
  - Diabetes Mellitus, Hypertension, migraines
  - Ethnicity – African American
  - Eye trauma or infection
  - Myopia

Glaucoma

- TREATMENT:
  - Medical: eye drops (many different types, BB is the mainstay)
  - Surgical: Laser
- NURSING INTERVENTIONS
  - Teaching

Retinal Detachment

- *SEPARATION OF RETINAL LAYERS*
- Etiology: degenerative change, trauma, severe physical exertion, eye surgery
- ASSESSMENT: Flashes of light followed by floaters
- TREATMENT: Create an inflammatory process by cyrotherapy, photocoagulation (laser), diathermy
  Surgery: Scleral buckling
- NURSING INTERVENTIONS
  Pre-op/post- op/ Discharge Teaching

Retinal Detachment Cont' d

NURSING INTERVENTIONS

- PRE-OP
  Eye drops (miotic); inhibit accommodation / constrict pupils
  Sedative
  NPO
- POST-OP
  Vital signs; monitor eye patch/shield, report drainage; antiemetic; position affected eye down

Retinal Detachment

NURSING INTERVENTIONS

- DISCHARGE TEACHING
  Bedrest 1-2 days
  Avoid close eye work - 1 week
  Avoid jerky head movement, coughing, sneezing, vomiting
  No waist bending, lifting or work - 6 weeks
  Report floaters, flashes of light, decreased vision

Dry Eye Syndrome

- ETIOLOGY
  - Age, menopause, arthritis, medications
- ASSESSMENT
  - Stinging, burning, scratchiness, visible stringy matter
- TREATMENT
  - OTC artificial tears, wrap around glasses, avoid smoke

Normal Physiological Changes
SENSORY - HEARING

- HEARING LOSS
  - Presbycusis (sensorineural) functional loss
    - Loss of high frequency sounds (initially)
    - Loss of low frequency sounds (as condition progresses)
    - Cerumen – mechanical (tinnitus, ear pain, vertigo)
- Treatment
  - Hearing aids
  - Cerumen wash
- *Interventions*
  - *Device care*
  - *Communication techniques (Box 14-2)*

Hearing Aids

- Assessment
  - Integrity of the ear mold: Are there cracks or rough areas? Is there a good fit?
  - Battery: Use a battery tester if you have one. Are the contacts clean? Inserted correctly with + on battery matched to + in compartment?
  - Dials: Are they clean? Easily rotated? Does the patient report variation of volume when the volume dial is moved?
  - Switches: Do they easily turn on and off? Is there excessive static or feedback?
  - Tubing for behind the ear aids: Are there cracks? Is there good connection to the earpiece?

Taste

- Normal changes associated with aging
  - Diminished sense of taste (hypogusia)
    - Thresholds are ~2.5 to 5 times higher in older adults
      - Salt
      - Sweetness
- Interventions
  - Adding flavors
  - Checking dentures
  - Pleasant environment – soothing music, appetizing smells, pleasant decor
  - Assessing food likes, dislikes

Smell

- Hyposmia
- Thresholds for common odors ~11 times higher for older people
- Structural alterations contribute to loss of sense of smell
  - Upper airway
  - Olfactory tract
  - Hippocampus
  - Hypothalamus

Tactile Sensation

- Diminishes with age
- Decreased ability to detect pain and temperature extremes
- Interventions
  - Water heaters set at 110 degrees
  - Heating pads on low only
  - Inspect skin for wounds
  - Diabetics should check bottom of feet daily with a mirror

Nursing Assessment

- Assess safety and preventive measures
- Additional assessment
  - Nutrition
  - Patient safety
    - Date and label all foods
    - Place natural gas detectors in the home (for gas heat)
    - Place smoke detectors in strategic locations
    - Establish schedules for personal hygiene and house cleaning
    - Remove kitchen waste every evening

Motor Vehicle Accidents and Accidental Death

- Leading cause for persons > age 65
- Second leading cause after falls if > age 75
- Accompany older person to assess driving
- AARP offers 8-hour safe driving course
  - Effects of aging on driving
- Unsafe drivers should be reported to DMV for road test

The Cardiovascular System

CHAPTER 15

Normal Physiological Changes

- CARDIOVASCULAR SYSTEM
  - Decrease cardiac reserve
  - Loss of arterial elasticity
    - Isolated systolic hypertension
  - Decrease baroreceptor responses
  - Common disorders
    - CAD
    - MI; dysrhythmias
    - Angina
    - Stroke and others

Normal Physiological Changes

- CARDIOVASCULAR INTERVENTIONS
  - Take vital signs after period of rest
  - Monitor peripheral circulation
  - Provide warm environment; extra blankets, etc
  - Frequent rest periods
  - Take apical pulse in various sites
  - Others for specific disorder/diagnosis
  - Assess *physiological* and *psychological* impact on functional ability

Aging Changes with the Heart

- Myocardium
  - Hypertrophy
    - Left ventricular wall 25% thicker in 80 year old vs. 30 year old
  - Heart valves stiffen
  - Heart rate unchanged
  - Cardiac output declines but not significantly
  - Number of pacemaker cells and fibrosis of the AV node can lead to arrythmias in some

Atypical Presentation of Symptoms in Older Adults

- MI
  - Heartburn
  - Nausea and vomiting
  - Feeling of excessive fatigue
- Cardiac problems
  - Mental status changes
  - Agitation
  - Falls

Other Causes of Chest Pain

- Aortic stenosis
- Pericarditis
- GI problems
  - Heartburn
  - Acid reflux
  - Ulcers
- Pulmonary problems
  - Pulmonary embolus
  - Pneumonia
  - Pleural effusions
- Musculoskelal
  - Chondritis
- Herpes zoster (shingles)

JNC VII Report for Assessment of Hypertension

- In persons > 50 years, systolic blood pressure > 140 mmHg is an important cardiovascular disease (CVD) risk factor
- Beginning at 115/75 mmHg, CVD risk doubles with each increment of 20/10 mmHg
- Prehypertensive = systolic blood pressure of 120 to 139 mmHg or a diastolic blood pressure of 80 to 89 mmHg

JNC VII Report for Assessment of Hypertension

- Use thiazide-type diuretics for uncomplicated hypertension
  - alone or combined with other drug classes
- Most patients with hypertension will require two or more antihypertensive medications to achieve goal
- (< 140/90 mmHg, or < 130/80 mmHg for patients with diabetes or chronic kidney disease)

JNC VII Report for Assessment of Hypertension

- If blood pressure is > 20/10 mmHg above goal → initiate therapy with two agents
  - One should be a thiazide-type diuretic
- The most effective therapy prescribed by the most careful clinician will control hypertension only if patients are motivated
  - Motivation improves when patients have positive experiences with, and trust in, the clinician.
- Empathy builds trust → potent motivator

Assessment of the Hypertensive Patient

- Accurate blood pressure monitoring
- Record pressures in both upper extremities when lying, sitting, and standing
- Multiple readings on multiple occasions
- White coat hypertension
- Check evidence of target organ damage
  - Ophthalmic examination – retinal damage
  - Urinalysis for proteinuria

Hypertension

- Only ~69% of people with elevated BP are aware of it
- Elevated blood pressure
  - Men up to age 70 > women
  - After age 70, women > men
  - Hispanics, men and women of every age group
  - Increases with body weight
  - Southern states are the "stroke belt"

Management of Hypertension and Risk Reduction

- Establish blood pressure goals
- Teach lifestyle modifications
- Suggest nutritional adjustments
  - DASH diet
- Encourage exercise programs
- Encourage to stop smoking
- Encourage to reduce alcohol intake
- Manage medications

Nursing Interventions

- Activity and exercise support
  - Supervise increase in activity
  - Plan exercise and rest periods
- Diet therapy
  - Teaching
    - Start with patient' s preferred diet
    - Make small changes to gain acceptance
  - Consultation with dietitians

Hypotension

- Declining sympathetic response + decreased lower extremity muscle tone→ orthostatic hypotension
- Maintain supine position for 5 minutes→ check BP 1 and 3 minutes, sitting and standing
  - If drops 20 mmHg systolic or 10 mmHg diastolic = hypotension

Hyperlipidemia

- Lipid classifications
  - High-density lipoproteins (HDLs)→ mobilize cholesterol from blood vessels→ carry to liver for processing
  - Low-density lipoproteins (LDLs)
  - Triglycerides
- Treament
  - HMG-CoA reductase inhibitors (statins)
  - Bile acid sequestrants
  - Fibrates
  - Cholesterol absorption inhibitor
  - Nicotinic acid – Niaspan (increases HDL)
  - Lipid regulator

Heart Failure (HF)

- Statistics
  - 33% of hospitalizations are the result of CHF
  - Men and women develop equally
    - Incidence for women has increased
    - Men develop CHF after MI
    - Men develop as a result of long-standing hypertension
  - Incidence of mortality declining
    - Long term prognosis is not good

Congestive Heart Failure

- Risk Factors
  - Coronary artery disease
  - Hypertension
  - Family history
  - Cardiotoxic drugs
  - Smoking
  - Obesity
  - Alcohol abuse
  - Diabetes mellitus
  - Sleep disorders

Atrial Fibrillation

- Causes
  - Hypertension
  - Valvular stenosis → stretching of atria
  - Ischemic heart disease
  - Random arrival of impulses to AV node → irregularly irregular heart rate
  - Rapid pulse
- Not a life-threatening arrhythmia, but has complications
  - Embolic CVA

Nursing Interventions for Promotion of Cardiac Health

- Lifestyle modification
- Judicious use of medications
- Ongoing assessment of older person's cardiac status
- Discuss "high blood pressure" instead of "hypertension" with patients and families
  - Mistaken for anxiety or tension

The Respiratory System

CHAPTER 16

Normal Physiological Changes

- RESPIRATORY SYSTEM
  - Stiffening of the chest wall/lungs
  - Stiffening of diaphragm
  - Decrease in inspiratory/expiratory volumes
  - Arteriosclerotic changes in blood vessels
  - Decreased alveolar surface area available for gas exchange
  - Decrease in ciliary action
  - Decrease sense of thirst
  - Common disorders; pneumonia, COPD, asthma, etc.

Cardiovascular Changes Affecting the Pulmonary System

- Increased stiffness of heart + blood vessels → vessels less compliant to increased blood flow demands
- Impaired diastolic filling → diastolic dysfunction
- Increased left ventricular afterload → systolic dysfunction
- Decreased cardiac output with rest and exercise

GENERALIZED RESPIRATORY INTERVENTIONS

- Frequent position changes
- Encourage DBC
- Reduce variables that decrease O_2 level
- Monitor and report s/s related to decreased oxygenation
- Provide adequate fluid intake
- Assess ability to use inhaler

Methods to Quit Smoking

- Nicotine Replacement Therapy
  - Gum, patch, spray, inhaler, lozenge
- Bupropion (Zyban)
- Verinicline (Chantix)
- Nursing interventions for smoking cessation
  - Does support and intervention from nurses help people to stop smoking?
  - www.cochrane.org

Additional Measures to Promote Health

- Avoid exposure to dust and fumes
  - Ensure adequate ventilation when working with solvents, chemicals, paints, etc.
  - Wear a mask while doing woodwork or sanding furniture
  - Avoid wood stoves, smoky fires, perfumes, and other indoor pollutants
- Avoid air pollution including secondhand smoke
  - Do not exercise when air pollution or smog levels are high

Additional Measures to Promote Health

- Stay way from people who have colds or the flu
  - Get a yearly flu shot and pneumococcal vaccine at age 65
- Avoid excessive heat, cold, and high altitudes
- A commercial aircraft maintains a cabin pressure equivalent to an elevation of 5,000 to 10,000 feet → hypoxemia results for some with COPD
  - Arrange for supplemental oxygen in advance of the flight

Additional Measures to Promote Health

- Drink lots of fluids
  - Keep sputum loose and secretions easier to clear
- Maintain good lifestyle habits
  - Good nutrition
  - Exercise
  - Weight control
  - Moderation in alcohol consumption
- Have spirometry done routinely and get to know the numbers

COPD

- Types
  - Chronic bronchitis
  - Emphysema
- Statistics
  - Fifth leading cause of death in the United States
  - Female mortality slightly greater than male (2003-2007)
  - Caucasians are more at risk from developing and dying from COPD

Lung Cancer Statistics

- 90% of patients with lung cancer are or have been smokers
- Risk of lung cancer reduces to that of a non-smoker after 10-15 years of cessation
- African American males have 45% more lung cancer than white males.
  - African American males die > white males from lung cancer
- Deaths more common in young-old than old-old
  - After 74 years the mortality rate levels off and then decreases

Respiratory Infections

- Signs and symptoms
  - Atypical presentations
  - May not cough
  - Normal or diminished temperature
  - No classical signs of respiratory infection
  - Lethargy
  - Loss of cognitive or physical function
  - Reduced eating and drinking

Interpretation of the PPD

- "Two-step" approach for older adult
- Older person' s immune system may be sluggish and not respond to first test
- Teach patients with TB to take their medications at the same time daily to prevent the development of resistant Mycobacterium.

Pneumonia

- Most common type of infectious disease of the lung
- Risk factors
  - History of nosocomial pneumonia within the past 6 months to 1 year
  - Diagnosed lung disease (COPD)
  - Recent hospitalization
  - Nursing home residence
  - Smoking
  - Alcoholism

Pneumonia

- Risk factors
  - Neurological disease (dementia, CVA)
  - Immunosuppression (corticosteroid use, malignancy)
  - Use of oxygen therapy
  - Severe protein-calorie malnutrition
  - Heart failure
  - Antibiotic therapy during the previous month
  - Eating dependency
  - Enteral feeding by nasogastric tube
    - Major risk factor for aspiration induced pneumonia

Symptoms of Pneumonia

- Cough
- Fever
  - May be absent in elders because of subbasal temperature
- Sputum production
- Bacterial pneumonia
  - Headache
  - Myalgia
  - Lethargy
- Nonbacterial pneumonia
  - Substernal chest pain
  - Dyspnea
- *Note: New onset tachycardia and tachypnea seen in both viral and bacterial pneumonia*

Pneumococcal Vaccination Schedule

- All persons > 65years
- All adults with immunosuppression or chronic illnesses
- Revaccination every 6 years for persons with
  - Renal failure
  - Splenectomies
  - Underlying malignancies
  - HIV/AIDS
- Provide influenza vaccine annually

Nursing Interventions

- O_2, positioning, bronchodilators, hydration, fever, reduction of pleuritic pain, rest
- Teaching:
  - Adequate rest
  - Increase fluid intake
  - nutrition
  - avoid people with respiratory infections

Education for Older Patients with Pneumonia

- Advise smoking cessation
- Take 10 deep breaths an hour to aerate lungs and loosen secretions
- Drink plenty of fluids to keep secretions moist
- Take antibiotics as prescribed and finish prescription

Education for Older Patients with Pneumonia

- Avoid contact with others who are ill, infants, and frail older persons
- Avoid coughing in public and practice good handwashing procedures
- Receive the pneumococcal vaccine as soon as possible after recovery and flu shot yearly to minimize the risk of further infection

SARS

- Hardy virus
  - Can survive on surfaces > 24 hours
- Persons > age 50 are at highest risk
- Prevention
  - Wearing a facemask when in public areas of high-risk countries
  - Strict isolation of infected persons
  - Careful handwashing

The Genitourinary and Renal Systems

CHAPTER 17

Age-Related Changes in the Kidney

- Start around the age of 40
- Not significant until ninth decade of life
  - Decreased glomerular filtration rate
  - Decreased renal blood flow
  - Decreased maximal urinary concentration
  - Decreased response to sodium loss

Normal Changes of Aging

- Atrophy in supplying blood vessels → blood flow to kidney decreases
- Proximal tubules decrease in number and length
- Excretion of more fluid and electrolytes at night
- Lower levels of glucose excreted in urine
- Impaired excretion of drugs and metabolites → "normal" doses create problems
- Change in ability to concentrate urine + decreased thirst → more susceptible to dehydration
- Bladder becomes more fibrous → decreased capacity + increased postvoiding residuals

Normal Changes of Aging

- Detrusor muscles
  - Less contractile
  - Somewhat unstable
- Variations in ADH response
  - Higher basal levels
  - Blunted response to hypotension and hypovolemia
  - Kidney less responsive to circulating ADH → poorly concentrated urine + rich in sodium
  - Increased urine production at night

Normal Changes of Aging

- Genital System
- Females
  - Cessation of menstruation
  - Estrogen affects target organs
    - Vaginal tissues thin and shorten (atrophy)
    - Less elastic
    - Less lubrication
  - Secondary sex characteristics
    - Facial hair appears
    - Diminished pubic and axillary hair
  - Loss of libido

Normal Changes of Aging

- Females
  - Breast tissue
    - Less firm
    - Pendulous
    - Replaced by fat
    - Ligaments no longer maintain lobular shape
      - "Cooper' s droopers"
    - Ducts palpable as firm, stringlike structures
  - Changes in sexual response
    - Longer period to sexual arousal
    - Decreased vaginal lubrication
    - Labia and uterus do not fully elevate
    - Clitoris more easily irritated

Normal Physiological Changes

- GENTIO-URINARY
- Male
  - Prostatic enlargement
  - Decrease testosterone
  - Lower viscosity of seminal fluid
  - Common disorders BPH, urinary retention, UTI

Normal Changes of Aging

- Normal changes of aging should not affect the ability to respond sexually
  - Males
    - Change in vascular responses → erection as a result of direct penile stimulation
    - Decreased libido
    - Erection less firm
    - Longer time to ejaculation or difficulty delaying
    - Orgasm differs

Chronic Renal Failure (CRF)

- Skin changes: dry skin, pruritis
- Symptoms and signs similar to younger persons
  - Generalized edema
  - Anorexia, nausea
  - Decreased GFR
  - Hyperphosphatemia
  - Hypocalcemia
  - Hyperkalemia
  - Metabolic acidosis
  - Hypertension
  - Anemia
  - Altered cognition

Common disorders

Urinary Tract Infection

- *Escherichia coli most common cause*
- OTHER CAUSES
  - Incomplete bladder emptying
  - BPH
  - Foley catheter
- RISK FACTORS
  - Poor fluid intake
  - Urinary stasis

Common disorders

Urinary Tract Infection

SIGNS & SYMPTOMS

- Change in behavior may be the only symptom
- Frequency or urgency not reliable
- Fever may be delayed or absent, N/V, abdominal pain.
- Observe for subtle signs of infection i.e. confusion, agitation, tachycardia, change in facial appearance and other behavioral changes
- Lab: UA, CBC
- Gold standard: culture

Common disorders

Urinary Tract Infection

INTERVENTIONS

- ☒ Asymptomatic UTI (bacteruria)
- ☒ Monitor urine color, clarity
- ☒ Provide perineal hygiene
- ☒ Double voiding

Urinary Incontinence

- Stress Incontinence
- Urge Incontinence
- Overflow Incontinence
- Functional Incontinence
- Interventions
  - Embarrassing → not mentioned by the older person
  - Don' t call them diapers.
  - Be considerate of dignity and self-esteem
  - "Wearing diapers" is demeaning to many
    - Use other names
      - Depends®
      - "Protective undergarments" or "PUGs"

Urinary Incontinence

- Timed voiding
- Bladder training
- Medication
- Kegel exercises
  - For urge and stress incontinence

Benign Prostatic Hypertrophy (BPH)

- Affects 50% of men between 51 to 60
- 90% are symptomatic by 80
- Symptoms
  - Difficulty starting urination, weak stream, straining, nocturia, incomplete bladder emptying
- Treatment
  - Medications
  - Surgery

Post Menopausal Health Issues

- Atrophic vaginitis
- More frequent UTIs
- Urinary Incontinence
- Cognitive changes
- Vasomotor instability ("hot flashes")
- Sleep disturbances
- Osteoporosis
- Increased cardiovascular disease

Bladder Cancer

- Common cancer in men
- Risk factors
  - Smoking
  - Occupational exposure to arylamines
- Symptoms
  - Early symptoms
  - Later symptoms
- Treatment

Prostate Cancer

- Recommendations
  - DRE and PSA annually for men > 50 years
  - DRE alone for men > age 75, and DRE with PSA for men between ages 50 and 75
- *Note: The U.S. Preventive Services Task Force (2002) has stated that the evidence on the value of DRE and PSA in decreasing mortality is insufficient to recommend for or against this screening*

Ovarian Cancer

- 75% occurs after 55
- Poor prognosis in the elderly
- Vague abdominal discomfort, bloating
- No screening tool
  - CA-125 and ultrasound
  - Tests in development – based on blood proteins

Uterine or Endometrial Cancer

- Most common gynecologic cancer in elderly women
- Any bleeding after menopause is considered uterine cancer unless proved otherwise
- Risk factors
  - Late menopause
  - Celibacy
  - Obesity
  - Hypertension
  - Diabetes mellitus
  - HRT

Cervical Cancer

- Concern because of confusion around screening (Papanicolaou [Pap] smear)
  - Current recommendations (controversial)
    - Women not to receive routine Pap smears if they are over age 65, have history of regular, normal Pap smears, or are not at high risk because of other risk factors
    - Older women who have had total hysterectomies (cervix removed) for nonmalignant reasons do not require cervical screening but may require smears taken from the vagina.
    - Still should receive a bimanual exam to check for masses

Breast Cancer

- Monthly self–breast exams
- Yearly mammograms
- Risk Factors
  - Advancing age
  - Family history – first degree relative
  - Early menarche or late menopause
  - Hormone Replacement Therapy (HRT)
  - None or late pregnancy
  - Regular alcohol use
  - Abdominal obesity
  - Exposure to radiation
  - Personal history of benign breast disease

Breast Cancer

- Treatment for breast cancer
  - Depends on stage of tumor
  - Modified radical mastectomy, or lumpectomy with radiation
    - Comorbidities → treatment choices more challenging for some conditions
      - Cardiovascular disease may mitigate against extensive reconstructive surgery
    - Tamoxifen after surgery
      - Develop higher serum concentrations of tamoxifen

Sex and the Senior Citizen

- Older adults continue to need intimacy
- May or may not involve sexuality
- Half of adults aged 65-74 are still sexually active
- One quarter remain active 75-85
- Males > Females: 41% of males over 70 are active
- Health status may be a barrier

Age-Related Changes in Sexual Response

- Age-related changes in sexual response do not preclude a satisfying sex life.
- Older persons need to be assured that a wide range of feelings about sexuality are appropriate for seniors, just as they are for younger people.
- Age discrimination and sexually transmitted diseases
  - Older individuals in the populations should be offered the same services for sexually transmitted diseases as their younger counterparts.
    - Education
    - Screening opportunities
    - Prompt diagnosis

Sex and the Senior Citizen

- Cardiovascular disease and sex
  - Safe if certain activities can be performed without chest pain or shortness of breath
    - Climbing two flights of stairs
    - Walking at rate of 2 miles per hour
- Alternative expressions of sexuality
  - Body caressing
  - Manipulation of partner's genitals with the hand
  - Mutual masturbation

Sex and the Senior Citizen

- PLISSIT Model for Sexuality
  - "P" = permission, in which the nurse
    - Validates the older adult's desire for sexual activity
    - Starts the conversation with a neutral phrase
  - "LI"= limited information
    - The nurse offers specific, factual information and pertinent examples
  - "SS" = specific suggestions
  - "IT" = intensive therapy
    - Referral to advance practice nurse, or other expert

Erectile Dysfunction (ED)

- Studies vary on rates – 30-70% of men > 70
- Impotence, or erectile dysfunction (ED)
  - Vasculogenic – poor blood flow
  - Neurologic
  - Hormonal
  - Psychogenic factors

Nursing Interventions

- Health history for ED
  - Review of medications
  - Neurological exam
  - Assessment for depression
  - Tape or stamp test
- Treatments
  - PDE5 –inhibitors (Viagra, Cialis, Levitra)
  - Vasodilators (Caverject, Muse suppository)
  - Vacuum devices
  - Surgical implants

Complimentary and Alternative Therapies

- Saw palmetto
  - Used to treat or prevent BPH
  - Important to advise healthcare provider
  - Obstructive urinary symptoms could be prostate CA vs. BPH
- Black cohosh
  - Has compounds similar to phytoestrogens
  - Used to ease hot flushes and other menopausal side effects
  - Should not be used in women with breast, ovarian, uterine CA

The Musculoskeletal System

CHAPTER 18

Normal Changes of Aging

- Decrease range of motion of some joints
- Shrinkage of vertebral discs
- Joint degeneration with degenerative change
- Decrease in height
- Increased postural sway and difficulty maintaining balance
- Foot problems: bunions, hammertoes, corns, callouses
- Muscle atrophy especially with disuse

Skeleton: Normal Changes of Aging

- Two phases of bone loss in normal aging
  - Type I (menopausal bone loss)
    - Rapid
    - Affects women
    - Lasts the first 5 to 10 years after menopause
  - Type II (senescent bone loss)
    - Slower phase
    - Affects both sexes after midlife

Normal Changes of Aging

- Decrease in mineral metabolism
  - Change in bone structure
    - 20 to 70 years of age
      - Lose 1 to 2 cm in height every 2 decades
      - Shortening of the vertebral column
    - Midlife
      - Vertebral discs thin
    - Later years
      - Decrease individual vertebrae height

Muscles: Normal Changes of Aging

- Sarcopenia
- Decline in muscle fibers & lean muscle mass
- Fatigue easily
- Common disorders - osteoporosis, osteomalacia, restless leg syndrome, rheumatoid arthritis, fractures, etc.

Joints, Ligaments, Tendons and Cartilage: Normal Changes of Aging

- Cartilage erodes
- Ligaments, tendons, and joint capsules lose elasticity and flexibility
- Nonarticular cartilage continues growth throughout life

Metabolic Bone Diseases

- Osteopenia
  - 1-2.5 standard deviations below the mean
- Osteoporosis
  - >2.5 standard deviations below the mean
  - Most common metabolic disease
  - Affects 50% of women during their lifetimes
  - 20 million women and 8 million men diagnosed in the United States
  - 3.8 million women receive adequate care
  - Risk factors

Pathophysiology of Osteoporosis

- Reduced BMD
  - Highly predictive of spinal and hip fractures
  - Osteoporotic fractures affect 1.3 million per year in the United States
  - Vertebrae fractures affect about 500,000 people per year
  - Hip and wrist fractures affect about 260,000 per year
  - One in five patients die within 1 year
  - One third regain their prefracture mobility and independence level

Classification of Osteoporosis

- Primary osteoporosis
- Type I (menopausal bone loss)
- Type II (senescent bone loss)
- Secondary osteoporosis
  - Hyperparathyroidism
  - Malignancy
  - Immobilization
  - Gastrointestinal disease
  - Renal disease
  - Vitamin D deficiency
  - Drugs causing bone loss such as and glucocorticoids, anticonvulsants and thyroid hormone

Paget's Disease

- Paget's disease (PD), or osteitis deformans
  - Chronic, localized bone disorder
  - Normal bone replaced with abnormal bone
  - One or more skeletal lesions
    - Pelvis (68%)
    - Skull (44%)
    - Vertebrae (49%)
    - Femur (55%)
  - Occurs in men and women
  - Affects those over 70 years of age
  - Affects 1 million to 3 million Americans
  - May be asymptomatic but many have localized bone pain
  - Usually found on x-ray diagnosis for unrelated problem

Paget's Disease – Pathophysiology

- Accelerated activity of abnormally large osteoclasts
- Resorbtion of bone at specific sites
- Rapid bone formation → inferior new bone structure
  - Less compact
  - Vascular
  - Prone to structural deformities, weakness, and pathological fractures
- Etiology
  - Unknown
  - Viral particles, genetics, and hereditary factors implicated

Joint Disorders: Noninflammatory and Inflammatory Categories

- Noninflammatory joint disease (osteoarthritis)
  - lack of synovial inflammation
  - absence of systemic manifestations
  - normal synovial fluid
- Inflammatory joint disease (rheumatoid arthritis, gout, and pseudogout)
  - Synovial inflammation
  - Systemic manifestations
  - Abnormal or lack of synovial fluid

Noninflammatory Joint Disease: Osteoarthritis

- Osteoarthritis Statistics
  - Most common form of arthritis in the United States
  - Affects more than 50% of people > 65
  - Leading cause of disability for > 65
  - Chronic disease
  - Women are affected more than men
  - Predicts self-care abilities as older adult
  - Aging alone does not cause this disease
  - Other associated factors for OA include
    - Obesity
    - Overuse of a joint
    - Trauma
    - Cold climate

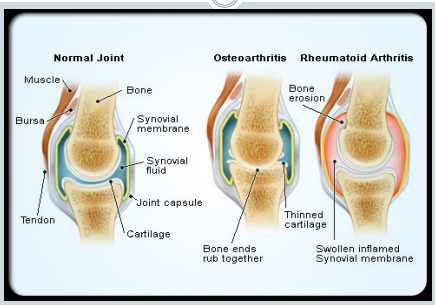
Inflammatory Joint Disease

- Rheumatoid arthritis (RA)
  - Most prevalent inflammatory arthritis of any age group
  - Common in the elderly
  - Incidence increases to age 80
  - three-to-one ratio for women to men
  - Course of the disease varies greatly
  - Mild remitting disease
  - Severe disability, joint deformity, and even premature death

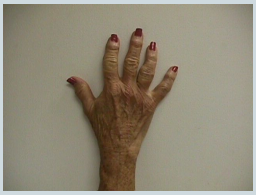
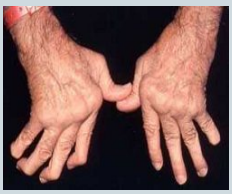
Rheumatoid Arthritis – Clinical Manifestations

- Primary RA clinical manifestations
- Disabling morning stiffness
  - Lasts more than an hour
  - Occurs after period of rest
- Marked joint pain especially in upper extremities
  - Severe redness , swelling, warmth
- Subcutaneous nodules with advanced disease
  - Pressure areas on elbows or sacrum
  - Not attached to bone or underlying skin
- Pannus formation
  - Granulation tissue
  - Erodes joints, soft tissue, cartilage
  - Scar formation that leads to deformity

Osteoarthritis vs. Rheumatoid Arthritis



Osteoarthritis vs. Rheumatoid Arthritis

Osteoarthritis	Rheumatoid Arthritis
	

Sjogren's sydrome

Occular manifestations: episcleritis/scleritis

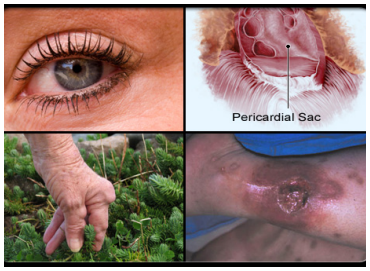
Pulmonary involvement: pleurisy w/efusion

Cardiac: pericarditis/ myocarditis

Renal involvement

Felty's syndrome: neutropenia/splenomegaly

Vasculitis



Systemic Manifestations Rheumatoid Arthritis

Falls and the Older Person

- Major health problem for older persons
- Implications for medical AND financial outcomes
  - Most falls occur in home during normal routines
  - Serious implications for older person
  - Leading cause of accidental death in the United States
  - Seventh leading cause of death persons > 65 years in the United States
  - Deaths as a result of falls increases with age
  - Serious problem → need for ongoing prevention as part of overall care of older person
  - Each year over 1/3 of people over 65 sustain a serious fall

Falls and the Older Person

- Prevention of falls is a key goal of gerontological nursing practices
  - Recognize older persons who are at risk for falling
  - Identify and correct fall risk factors
    - Improve balance, gait, and mobility
    - Improve functional independence
  - Reduce or eliminate environmental factors that contribute to fall risk
  - Evaluate outcomes
  - Revise plan as needed

Nonpharmacological Treatment to Prevent Falls and Fall-Related Injuries

- Assess for risk factors
  - Hendrich II Fall Risk Model (pg 594)
  - Changes in vision, balance, judgment
  - Cardiovascular problems
  - Medications
  - Urinary incontinence
  - Other physical conditions
- Assessment of functional mobility offers valuable clues to fall risk
  - Gait
  - Balance
  - Position changes

Musculoskeletal Interventions

- Allow client to set own pace
- Provide ambulatory aids as needed
- Wear shoes with firm and no skid soles
- OOB and walk every 2-3 hours
- Teach and practice safety measures
- Teach emergency plan for fall in the home
  - Turn to stomach and crawl on phone
  - Cordless or wireless phone nearby at all times
  - Cover up and stay warm
  - Daily check in calls with family or friend
  - Emergency alert device around neck

Pharmacology Responsibilities

- NSAID's
  - Risk of GI bleed and renal toxicity
- Bisphosphonates
- Corticosteroids
- Disease modifying antirheumatic drugs (DMARD's)
  - Azathioprine
  - ciclosporin (cyclosporine A)
  - D-penicillamine
  - gold salts
  - hydroxychloroquine
  - sulfasalazine (SSZ)
  - leflunomide
  - methotrexate (MTX)
  - minocycline

The Endocrine System

CHAPTER 19

Normal Changes of Aging - THE ENDOCRINE SYSTEM

- Decreased secretion of insulin
- Potential for thyroid function problems with systemic symptoms that may be attributed to normal aging
- Decreased sensitivity to insulin resulting in variation of blood glucose levels
- Peripheral tissues may become insulin resistant, especially with obesity

Altered Thyroid Function with Aging

- Gland atrophy
- Nodularity of thyroid gland, especially areas with low iodine levels
- Elevated thyroid antibody levels
- Decreased T4 production but serum T4 unchanged because of diminished use
- Decreasing T3 levels
- Elevated TSH levels

Prevalence of Thyroid Disease in Older Persons

- Hypothyroidism
  - Women > men of all ages
  - Higher in institutionalized elderly than in older community-residing elderly
- Hyperthyroidism
  - Similar general population rates

Risk Factors for Developing Hypothyroidism

- Older age
- Female gender
- History or diagnosis of thyroid disease
  - Goiter
  - Thyroid nodules
  - Thyroiditis
  - Hyperthyroidism
- Treatment of head or neck cancer
  - External radiation
  - Iodine^{131}

Hypothyroidism – Symptoms

- Hypothyroidism
  - Fatigue
  - Increased need for sleep
  - Muscle aches
  - Dry skin
  - Bradycardia, decreased contractility and stroke volume
  - Increased cholesterol levels (elevations in LDL)
  - Ataxia and balance difficulties
  - Hearing loss
  - My have fewer symptoms than younger clients

Hyperthyroidism

- Graves' disease
- Toxic nodular goiters
- Medication
  - Amiodarone
  - Levothyroxine

Hyperthyroidism – Signs and Symptoms

- Exhibit fewer and different in elderly than in younger adults
- Most common in older adult
  - Tachycardia, > 90 beats/minute in older adults
    - Atrial fibrillation
  - Weight loss
  - Fatigue
  - Weakness or apathy

Diabetes Mellitus (DM)

- Statistics for older adults
  - Highest prevalence ages 65 to 74
  - Second highest, > 75 years
  - Ethnic groups
    - Higher for African Americans and Hispanics
      - African American women < 75 years of age at highest prevalence, except Hispanic males after age 75
    - More likely to develop microvascular complications
    - More lower limb amputations than Caucasians

Diabetes Mellitus (DM)

- Type 2
  - Most prevalent in all age groups
  - Decreased insulin ability to stimulate glucose uptake by skeletal muscle + failure to inhibit hepatic glucose production → Insulin resistance + insulin secretory defect → rising glucose levels + more insulin production
  - Symptoms
    - Visceral/abdominal obesity
    - Hypertension
    - Hyperlipidemia
    - Coronary artery disease
    - Others
    - Rare ketoacidosis

Blood Glucose Elevations *without* DM

- Glucocorticoids
- Some diuretics
- Peritoneal dialysis
- Infection
- Acute event, such as myocardial infarction

Symptoms of DM in Older Persons

- Symptoms of hyperglycemia (usually > 200 mg/dl)
  - Polydipsia (excessive thirst)
  - Weight loss
  - Polyuria (excessive urination)
  - Polyphagia (excessive hunger)
  - Blurred vision
  - Fatigue
  - Nausea
  - Fungal and bacterial infections

Type 1 DM in the Elderly

- Slower onset of hyperglycemia symptoms
- Absence of ketoacidosis
- *Note:* Pancreatic cancer should be considered in older adults with rapid onset weight loss, polyuria, polydypsia, and polyphagia with elevated blood glucose.
- Complications of DM are accelerated in the elderly.
- Blood glucose levels before breakfast are exaggerated in older patients with DM.
- Euthyroid sick syndrome
  - Body compensates for decreased metabolic rates → decreased TSH levels + low T4 levels

Controlling DM in the Older Person

- Weight management
  - Address elevated lipids
  - Maintain protein and calcium requirements
  - Maintain sodium restrictions
  - Control carbohydrate and fat intake at mealtimes
  - Eat a high-fiber diet
  - Snack during peak insulin or oral hypoglycemia action
  - Avoid alcohol
  - Moderate regular exercise
  - Avoid strenuous exercise

Appropriate Use of Medications

- Monotherapy or combination
  - Combinations
    - Simplify dosing
    - May be less expensive
- Antihyperglycemic drugs - Biguanides
  - Metformin→ enhanced glucose uptake + muscle utilization → increased insulin sensitivity
  - Mild weight loss
  - Improved lipid profile
  - Rare hypoglycemia
  - Do not use if > 80 years or renal failure if serum creatinine > 1.5 for men or > 1.4 for women

Oral Hypoglycemic Drugs

- Sulfonylureas
  - Second-generation stimulates beta cells → increased insulin → hypoglycemia
    - Glyburide
      - If low blood sugar, monitor in hospital for 2 to 3 days
      - Weight gain
      - Check sulfa allergy
- Meglitinide → stimulates insulin release in response to meal
  - Rapid onset with short duration
  - Must be taken with each meal
  - Do not take without food

Anti-Hyperglycemic Drugs

- Thiazolidinediones (TZD' s)
  - Weight gain
  - Increase HDL

Educate Regarding Acute Illness

- Acute illness can cause hyperglycemia
- Call healthcare provider if
  - Unable to keep food or liquids down or eat normally for more than 6 hours
  - Occurrence of severe diarrhea
  - Unintentional weight loss of 5 pounds
  - Oral temperature higher than 101° F
  - Blood glucose levels lower than 60 mg/dL or more than 300 mg/dL
  - Presence of large amounts of ketones in the urine
  - Difficulty breathing
  - Feeling sleepy or unable to think clearly

Six Geriatric Syndromes Associated with DM Requiring Careful Management

- Polypharmacy
- Depression
- Cognitive impairment
- Urinary incontinence
- Injurious falls
- Pain

The Gastrointestinal System

CHAPTER 20

Normal Changes of Aging: GI System

- Impaired dentition
- Decreased sense of taste, smell, salivary secretion
- Decreased gastric motility, increased emptying time
- Achlorhydria, decreased intrinsic factor (anemia)
- Decreased intestinal absorption, motility, blood flow
- Decreased pancreas size
- Decreased liver size and blood flow
- Decreased thirst and hunger drive
- Increased medication use with associated side effects

Common Disorders of GI System

- Gastroesophageal Reflux Disease (GERD)
  - Weakening of the lower esophageal sphincter
  - Increased incidence of hiatal hernia
- Dysphagia
  - Most common esophageal disorder in older people
  - Indicative of another problem
  - Affects oral intake
  - Identified in ~50% of institutionalized older persons
    - Especially neurological problems

Consequences of GERD

- Physical
  - Erosive esophagitis
  - Chronic laryngeal irritation
  - Bleeding and hemorrhage
  - Scarring
  - Stricture formation
- Psychosocial
  - Fearful of eating out
  - Sleep is disrupted

Assessment for Dysphagia

- Have you ever choked while eating or drinking? If so, how recently? Does choking occur frequently?
- Does your mouth feel dry? Do you have enough saliva to chew your food easily?
- Do you have problems with drooling or controlling saliva?
- Does food ever "fall out" or "get stuck" in your mouth?
- Do you ever "spit up" food after a meal?
- Do you feel the need to clear your throat frequently?
- Do you have problems sitting upright during mealtime?

Nursing Assessment of GERD

- Questions regarding symptoms
- Distinguish from cardiac pain
  - Worsens after meal or when lying down
- Referral to primary care provider as appropriate
- Diagnostics: Barium swallow, Endoscopy, Esophageal contents pH less than 4 verify reflux

Interventions To Decrease Aspiration Risk

- Minimize distractions
- Pleasant calm environment for mealtimes
- Consistent feeding techniques
- Ensure likes and dislikes are taken into account
- Proper positioning – 90 degree angle
- Maintain upright position for 1 hr after meal
- Do not rush, be sure one bite finished before next offered
- Monitor respirations, change can indicate aspiration

Interventions To Decrease Aspiration Risk

- Provide oral hygiene before and after meals
- Plan meals when the person is rested
- Dementia clients should be kept on a routine
- Do not overly thicken liquids
- Keep conversation to a minimus
- Use step by step prompts if needed (Here is a bite of vegetables, let me know when you are ready for the next bite).
- Never force eating or engage in a power struggle

Interventions To Decrease GERD

- Elevate head of bed 6-10 inches with blocks
- Reduce portion sizes, avoid large meals or late night eating
- Avoid chocolate, cola, certain spices, onions, garlic, tomatoes, ketchup, vinegar, citrus
- Decrease or eliminate fat, caffeine, alcohol intake
- Stop smoking
- Lose weight
- Remain upright 1-3 hours after a meal
- Review meds with healthcare provider to see if contributing to GERD

Gastric Disorders

- Gastritis
  - Erosive gastritis
    - Irritating substances
      - Alcohol
      - NSAIDs
      - Ischemia from arterial insufficiency or circulatory problems
- Treatment
  - Continual assessment for bleeding/anemia
  - Correct underlying cause
  - Neutralize gastric acid
  - Treat H. pylori if present

Peptic/Duodenal Ulcer Disease

- Elders have higher incidence of hospitalization, morbidity, and mortality rates due to serious GI Bleed
- Excoriated area of gastric or duodenal mucosa
  - Slow undetected bleed can lead to anemia
- *H. pylori* common
- Peptic ulcer- pain with eating or shortly thereafter
- Duodenal ulcer – pain on empty stomach
- Pain absent in more than 50% of patients

Treatment: Peptic/Duodenal Ulcer disease

- Monitor for GI bleed
- Discontinue alcohol, NSAID' s, tobacco and caffeine
- Small frequent meals
- Treat H. pylori
- Neutralize gastric acid
- Surgery for non-responders

Factors Making Older Persons Susceptible to Altered Colonic Function

- Diagnosis with a metabolic or endocrine disorder
- Lifestyle and environmental factors
  - Insufficient fiber or fluid in the diet
- Neurological disorders or injury
- Mobility problems
- Cognitive impairment or mood disorders
- Medications

Lower GI Disorders Common in the Older Person

- Diverticular disease
  - Saclike mucosal projections → trap feces → inflammation + infection → potential to rupture
  - Located in sigmoid and descending colon
  - ~50% occurrence in persons > 65 years
  - Symptoms
    - Rupture → painless bleeding
- Diverticulitis
  - Infection of diverticula
  - 15-25% of older adults with diverticulosis will develop
  - Asymptomatic or fever, leukocytosis, LLQ pain/discomfort
  - Constipation, diarrhea or watery stools with flatus

Interventions To Manage Diverticular Disease

- Eat more fiber
- Drink lots of fluid
- Exercise
- Do not ignore the urge to deficate
- Avoid foods that precipitate painful attacks
  - Seeds –popcorn, sesame, poppy

Diarrhea

- Older persons more susceptible
  - Hypochlorhydria or achlorhydria
  - Increased use of antibiotics
  - Decreased mucosal immune function
- Chronic diarrhea
  - Tumors
  - Surgery
  - Medications
    - Magnesium containing antacids, NSAID' s, digoxin, beta-blockers, antiarrhythmics, quinidine, colchicine

Antibiotic Associated Diarrhea and Colitis

- Occurs during or shortly after administration of antibiotics
- Caused by *Clostridium difficile* cytotoxin → bowel inflammation + epithelial necrosis → diarrhea + postmembranous colitis
- Signs and symptoms
  - Watery nonbloody diarrhea of differing degrees
  - Lower abdominal pain and cramping
  - Low-grade fever
  - Can lead to dehydration, hypotension and colonic perforation

Fecal Incontinence

- Occurs ~50% institutionalized elderly
- Cause
  - Mobility problems
  - Severe depression
  - Cognitive impairment

Constipation

- Common problem in older persons
  - 20% residing in community
  - 50 to 75% in nursing home residents
- Symptoms
  - Three or fewer stools per week
  - Straining at stool
  - Hardened or reduced caliber of stool (pencil stools)
  - Feeling of incomplete evacuation
- Management

Hemorrhoids/Rectal Bleeding

- Most common cause of rectal bleeding
- Asymptomatic in early stages
- Can be internal or external
- Treatment depends on size
  - Rubber banding
  - High-fiber diet
  - Bulking agents
  - Sitz baths
  - Suppositories with benzocaine
  - Surgery as appropriate

Benign and Malignant Tumors

- Benign polyps
  - ~75% persons > 50 years
- Malignant tumor
  - Second most common cancer in the United States
  - Most common cancer after age 65
  - Asymptomatic in early stages
  - Later stage symptoms
    - Change in bowel habits
    - Abdominal pain
    - Abdominal mass
    - Anemia
    - Rectal bleeding
    - Weight loss

Early Detection and Prevention of Colon Cancer

- Annual fecal occult blood testing
- Initial screening with sigmoidoscopy/colonoscopy should begin at age 50
  - Repeat every 10 years until age 85
  - If polyps are identified, repeat every 3 to 5 years

Older Persons with Liver Disease

- Present with vague and ambiguous symptoms
  - Fatigue
  - Weight loss
  - Anorexia
  - Malaise
- Liver more susceptible to drugs and toxins with age
- Hepatitis
  - A – less common in the elderly, 70% possess immune ab
  - B – more likely to become chronic

Liver Cancer

- Highest in persons 50 to 70 years
- History of hepatitis B or C → cirrhosis → 20% will develop hepatic carcinoma
- Metastatic carcinoma is the most common form
- Symptoms – only 20% will be symptomatic at diagnosis
  - Jaundice
  - Variceal bleeding
  - Ascites
  - Right upper quadrant abdominal pain
  - Weight loss
  - Enlarged liver
  - Liver function tests are usually abnormal
    - Increased serum bilirubin levels
    - Elevated serum alkaline phosphatase
    - Decreased serum albumin concentrations

Pancreatitis

- Acute pancreatitis
  - Symptoms
    - Epigastric pain
    - Nausea and vomiting
    - Elevated serum liver function studies
      - Amylase
      - Lipase
      - Bilirubin
      - Alkaline phosphatase
  - Treatment
    - NG suctioning, hyperalimentation
    - Pain management

Chronic Pancreatitis

- Symptoms
  - Weight loss
  - Diarrhea
  - Diabetes
  - Persistent pain
- Treatment
  - Refrain from alcohol
  - Surgery
- Pancreatic cancer
  - Painless jaundice, weightt loss, pruritus

Aggressive Nursing Interventions to Prevent Dehydration

- Frequent assessment of pulse and blood pressure
- Assessment of postural blood pressure if the patient is ambulatory
- Establishing a schedule to offer the patient oral fluids every 15 to 30 minutes
- Monitoring urinary output and skin turgor
- Notifying the primary care provider of imminent dehydration so that IV fluids may be initiated if necessary

The Hematologic System

CHAPTER 21

Structural Components and Function THE HEMATOLOGIC SYSTEM

- Function
  - Carry oxygen and nutrients to tissue
  - Remove carbon dioxide and waste products
  - Transport substances, such as hormones, proteins, solutes, water and medications

Changes of Aging Hematologic System

- Amount of bone marrow in long bones declines
- Number of stem cells in marrow decreases
- Erythropoietin to stimulate iron to form RBCs is less effective
- Lymphocyte function, especially cellular immunity, appears to decrease with age
- Platelet adhesiveness increases
- Average hemoglobin and hematocrit values decrease slightly but remain within normal limits

Anemia

- Common disorder of aging
- Falsely attributed to normal aging
- Classification by mean corpuscular volume (MCV) = size of RBC
  - No symptoms until severe disease
  - Symptoms similar for all ages
    - Fatigue
    - Dyspnea on exertion
    - Worsening angina
    - Peripheral edema
    - Tachycardia
    - Dizziness

Chronic Myeloproliferative Disorders

- Abnormal proliferation of one or more hematopoietic processes
  - Polycythemia Vera – increased RBC
    - Diagnosed > 60 usually male Caucasian/European Jewish ancestory
    - Complications: thrombosis, transformation to acute luekemia
    - Treatment: phlebotomy
  - Thrombocythemia – increased platelets
    - Hemorrhage or clot formation
    - Females > 60 years
    - Symptoms vague or absent
    - Treatment: hydroxyurea, keep platelets below 400,000/ µg

Hematologic Malignancies

- Chronic Lymphoid Leukemia (CLL): accumulation of small abnormal lymphocytes that cannot maintain immune function
  - Primarily a disease of older persons
  - 5 year survival rate is 50%, 30% survive 10+ years
- Multiple Myeloma: overproduction and accumulation of immature plasma cells in bone marrow
  - More common > 50 years – African Americans
  - No cure – progressive – survival 2-5 yrs from diagnosis

Nursing Assessment of Older Patients with Hematologic Abnormalities

- Determine if there a diagnosis of concurrent chronic or progressive illness
- Check medications
  - Over the counter
  - Herbal remedies
- History of surgery or trauma
- Baseline level of function and activity level
- Recent change in activity status

Nursing Assessment of Older Patients with Hematologic Abnormalities

- Lifestyle factors
  - Smoking
  - Alcohol use
  - Depression
  - Obesity
  - Poor nutrition
  - Sedentary lifestyle
- Family history and diagnosed blood disorders in first-degree relatives
- Occupational exposures to chemicals or pollutants

Nursing Interventions to Promote Self-Care

- Provide support and teaching for the patient and family
- Protect skin from dryness, cracking, and injury
- Provide teaching and administration of medications to relieve nausea and vomiting
- Encouraging recreational and diversional activities consistent with the patient's general functional ability
- Advise and offer referral as needed for nutritional intake
- Assess and treat hematological problems
- Treat associated symptoms including constipation, diarrhea, and dry mouth
- Involve multidisciplinary team to address physical, social, psychological, and spiritual needs

Hypercoagulation and DVT

- Acute MI = 20%
- Orthopedic procedures and incidence of DVTs
  - Total hip replacement = 25%
  - Traumatic hip fracture = 50%
  - Total knee replacement = 60%
- Atrial fibrillation
  - Form thrombi within atria → general circulation → stroke
  - Acute myocardial infarction—DVT risk post myocardial infarction ~ 20%
    - High risk with heart failure, recurrent angina, or ventricular arrythmias
- Ischemic stroke—in patients with stroke + paralyzed lower extremities→ DVT is 40%

Interventions to Prevent DVT

- Identify those at risk
- Getting patient up and walking as soon as possible
- Change position every 2 hours while in bed
- Pneumatic compression as indicated after surgery
- Lifestyle changes: support stockings, hydration, elevating legs while sitting, avoid being sedentary
- Anticoagulants
  - Teach to look for signs of bleeding in urine, gums, stool, nosebleeds, sputum, excessive bruising

The Neurologic System

CHAPTER 22

Dementia
THE NEUROLOGIC SYSTEM

- Dementia is both a chronic and terminal illness
- Alzheimer's disease (AD)
  - Aging is biggest risk factor
    - ~47% > 85 years old may develop AD
  - Lasts from 2 to 20 years with average duration 8 years

Normal Changes of Aging: CNS

- Brain decreases in size and weight
- Neuronal death and changes within the synapse
  - Senile plaques and neurofibrillary tangles
- Atherosclerosis
- Decreased arterial perfusion/blood flow to the brain
- Decrease in neurotransmitters and receptors
  - More prone to mood disorders
- Decrease in short term memory but not ability to learn
- Sleep disturbances

Normal Changes of Aging: PNS

- Narrowing of the vertebral bodies puts pressure on the spinal cord
- Peripheral nerves decline in function
- Loss of vibratory sense in the feet – almost universal
- Some deep tendon reflexes may be absent
- Slower response to drop in BP during position change (postural hypotension)
- Inefficient thermoregulation
- Impaired coordination
- Slowed responses and movement

Dementia

- Acquired syndrome
  - Gradual onset
  - Progressive loss of intellectual abilities
- Diagnosis (DSM-IV-TR criteria) – loss of one or more:
  - Ability to generate coherent speech and understand spoken or written language
  - Ability to recognize or identify objects, assuming intact sensory function
  - Ability to execute motor activities, assuming intact motor abilities, sensory function and comprehension of the required task
  - Ability to think abstractly, make sound judgments, and plan and carry out complex tasks severe enough to interfere with daily life

Mild Cognitive Impairment (MCI)

- Clinical Diagnosis
  - Loss of intellectual ability/memory **without** impairment severe enough to interfere with social or occupational functioning
- Transition between normal aging and dementia
  - 8.3% of patients per year will convert to AD
  - Depression increased the risk of conversion
  - Complaints and objective evidence of memory problems
  - No deficits in ADLs or other cognitive function
  - Associated with increased risk of death, declining cognitive abilities, and incident AD

Types of Dementia

- Alzheimer' s disease
  - Most common – 50-70% of cases
  - Neuritic plaques and neruofibrillary tangles (cell death)
  - Progressive cognitive decline beginning with memory impairment and progressing to apahsia and apraxia
- Vascular dementia
  - Cerebrovascular abnormality (i.e., multiple small infarcts)
  - Abrupt or slow onset – stepwise progression
  - Lapses in memory and reasoning, followed by stable periods, then worsening decline
  - Memory problems, emotional lability, hallucinations, personality changes

Types of Dementia

- Frontotemporal lobe dementia (FTD)
  - Early symptoms are word finding difficulty that progresses to apahsia
  - Apathy, poor social judgment and bizarre behavior
- Lewy body dementia
  - Abrupt onset
  - Loss of ACh producing neurons
  - Fluctuating attention and alertness, parkinsonian- like symptoms, recurrent visual hallucinations

Planning Care for Patients with AD

- Currently no medicine or technology prevents or cure AD
- Symptomatic nursing care is the primary intervention
  - It is both a life-limiting and a chronic illness
  - Caregivers require expertise
    - Long-term care
    - End-of-life care
  - Family caregivers also require supportive care
- Persons with AD develop challenging behavioral and psychiatric symptoms
  - Alleviate symptoms
  - Teach patients and caregivers about the effects of AD → promote comfort + reduce feelings of distress

Advance Directives and Proxy Establishment

- While patients have decision-making capacity, include them in discussions
- Initiate discussion about desired treatment modalities
- Select a healthcare proxy/power of attorney
- Inform proxy about desired care to be provided when patient is unable to make decisions
- Offer cognitive-enhancing medications as appropriate
- Refer to local Alzheimer Association
  - Support groups
  - Services
  - Assistance to locate other community services
    - Program for All Inclusive Care of the Elderly (PACE)
    - Los Angeles has AltaMed Senior Buena Care

Nursing Care for Patients with Dementia

- Pharmacologic Therapy
  - Improve function and slow progression
  - Cholineserase Inhibitors – blocks the enzyme that breaks down Ach
  - NMDA Agonist – modulate the activity of glutamate
- Stages of AD
  - Stage 1 - Mild
  - Stage 2 - Moderate
  - Stage 3 -Severe
  - Stage 4 - Terminal

Management Guidelines for Alzheimer's

- Treat pain liberally if present
- Ensure safe environment
- Never say "no" but offer options
- Provide calm environment
- Provide meaningful activities (singing, memory games, read client the newspaper, etc.)
- Give rest breaks
- Personalize living space with items from home
- Provide verbal prompts one at a time
- Safe return program (http://www.alz.org)

Management Guidelines

- Apraxia
- Agnosia
- Delusions and hallucinations
- Be alert for changes indicating depression
  - Appetite
  - Disinterest
  - Anhedonia
  - Sleep abnormality
  - Fatigue

Anxiety

- Plan specific interventions to minimize stress level
- Enhance feelings of trust and safety
- Promote self-control by providing a daily routine with few variations to provide stability
- Diversional activities
  - Music therapy
  - Reminiscence
  - Structured sensory stimulation

Resistance to Care

- Common in middle to late stages of dementia
- Major reason for institutionalization and use of psychotropic drugs
- Alternate strategies
  - Responding with a relaxed and smiling manner
  - "Time-out" with a pleasant distraction
    - Looking at family pictures after med refusal, try again later
    - Hand massage with washcloth for one resistant to handwashing

Food Refusal

- Specific issues occur in each of the progressive stages of AD
- Causes
  - Changes in environment
  - Disruption in routine
- Use foods that are easy to handle
- Limit amount and type of food and beverage to minimize stimulation
- Use distraction for active opposition and try again a little later

Parkinson's Disease (PD)

- Variable symptoms
  - Resting Tremor
  - Rigidity
  - Bradykinesia
  - Disturbance in gait and posture
- Cause
  - Progressive degeneration/death of neuronal cells located in the substantia nigra
  - These cells produce dopamine
  - Altered ratio of dopamine to acetylcholine

Parkinsonism

- Stages
  - Early
    - Mild symptoms on one side only
    - Mask symptoms
  - Middle
    - Difficulty rising from chair
    - Flexed position when standing
    - Lean forward to initiate walking
    - Shuffling step with no arm swing
    - Unsteady gait, especially when turning
  - Very late
    - Unable to stand or walk
    - Cachectic
    - Needs continuous care

Stroke

- Stroke is the sudden loss of consciousness followed by paralysis.
- Stroke pathology
  - Hemorrhage into the brain
  - Embolus or thrombus that occludes an artery
  - Rupture of an extracerebral artery → subarachnoid hemorrhage

Treatment for Patients with a Stroke

- Immediate
  - Lifesaving techniques
  - Prevention of stroke extension
  - Early treatment with plasminogen activator (rt-PA) for ischemic stroke
- Nursing Care
  - Skin care
  - Bowel and bladder management
  - Ensuring safety and mobility

Nursing Interventions for Patients with Seizure History

- Obtain an accurate patient history, including age of seizure onset and frequency of attacks
- Inquire about the dates and duration of the seizures
- Determine medication names, dosages, and frequency
  - Many patients are not initially given a high enough dose
- Educate patient and family
  - Reinforce importance of taking medication
  - Implement a seizure calendar to assist with treatment program
  - Teach family what to do in case of a seizure: lay person on side, surround with soft objects, do not place anything in mouth)

Nursing Interventions for Patients with a Seizure History

- Prevent injury to the patient
- Side rail pads
- Suction equipment readily available
- Place on side to prevent aspiration
- Provide oxygen with signs of hypoxia
- Monitor for status epilepticus
  - Notify physician
  - Establish airway
  - Provide oxygen
  - Start IV
  - Monitor vital signs

The Immune System

CHAPTER 23

Normal Changes of Aging: IMMUNE SYSTEM

- Overall decrease in:
  - Speed and strength of immune response
  - B-cell response to new antigens
    - More antigen may be needed to initiate a response
    - Lower peak antibody concentration
  - IgE production – decreased hypersensitivity reactions
  - Effectiveness of cellular immunity – diminished T lymphocyte response
    - Slower response to infection, increased incidence of infection
- Increased antibody production against self – increased autoimmune diseases

Multiple Factors Affect the Individual's Immune System

- Internal characteristics
  - Modifiable
    - Nutritional status
    - Existence of underlying disease
  - Nonmodifiable
    - Age, gender, and inherited genes

Factors Impacting the Immune Response

- Stress
  - Stress → sympathetic stimulation + hormonal changes → suppressed immune response in older adults
  - Cumulative stress contributes to aging of the immune system
  - Poor cellular immunity → complication of stress
  - Differing coping styles impact stress response
    - Active → positive effect

Factors Impacting the Immune Response

- Exercise
  - Exercise enhances the immune response
    - Cell-mediated response
    - Tai chi increases IgG + IgM production
- Nutrients
  - Nine micronutrients contribute to cell-mediated response
    - Vitamins A, C, E, B_6, folate, iron, copper, selenium, and zinc
    - Mild zinc deficiency common in older person population
  - No definitive evidence to support use of multivitamin, many clinicians feel it should be recommended for older adults

Immune System Interventions

- Avoid exposure to infectious agents
- Hand Hygiene
- Decrease activity if c/o of fatigue
- Teach importance of immunizations

HIV

- HIV Infection
  - Underdiagnosed because stereotyped that older adults are not interested in sex
  - Underreported
- HIV and older persons
  - Little knowledge
  - Limited personal awareness
  - Minimal interest in preventing HIV
  - Medications enhancing sexual function
  - Sexually permissive "baby boomers" are aging

HIV

- HIV infection in older population
  - Heterosexual and homosexual activities
  - Intravenous drug use
- HIV infection symptoms
  - Lower CD4 cell counts
  - More symptoms at initial diagnosis
  - More aggressive course
  - Higher risk of death from the disease
- Antiretroviral therapy treatment for older people with HIV infection is encouraging.

Tuberculosis

- Highest > age 65
- Mycobacterium tuberculosis exposure
- Atypical signs and symptoms
  - Confusion and altered mental status
  - Pleural effusion
- Two-step Mantoux method recommended

Health Behaviors to Improve Immune Status

- Consider older people who are under substantial stress at high risk for conditions associated with a decreased immune status
- Encourage evaluation of stress levels for those with hypertension, anxiety, insomnia to identify those at high risk
- Assist people in identifying active, positive coping strategies, especially in acute stress
- Educate the person, family, and friends about stress effects
- Encourage all elderly to develop and exercise plan and obtain routine vaccinations

Multisystem Problems: Caring for Frail Elders with Comorbidities

CHAPTER 24

Age-Related Changes

- Aging varies from person to person
  - Each person has unique compensatory ability
  - Chronological age alone is not sole determinant of treatment decisions
- Functional decline can be unpredictable
  - Physically fit
    - Without adequate social support
    - Without financial resources
    - With depression
    - Cognitive impairment
    - Progressive apathy
  - Irreversible functional decline

Age-Related Changes

- Changes of aging + stress + normal homeostasis→ decompensation
  - Declining physiology function
  - Declining reserve
- Factors impacting the care of a frail elder
  - Decline in organ function
  - Patient and family preferences
  - Preexisting diagnosis of other diseases → negative impact on quality of life
  - Ageism prejudice in the healthcare system

Age-Related Changes

- Decreased muscle mass → functional dependence → problems related to immobility
- Loss of bone and muscle mass
  - Position changes more difficult
  - Complications with early ambulation attempts after surgery
  - Delay trips to the bathroom → urinary and fecal incontinence
  - Risk for falls → significant injury
- Decline in immune system → decreased protection against infection

Chronic Disease and Frailty MULTISYSTEM PROBLEMS - FRAIL ELDERLY

- Cancer
- Heart Disease (HD)
- Alzheimer's Disease (AD)
- Musculoskeletal Problems
- Diabetes Mellitus (DM)

Hospitalized Nursing Home Residents

- High risk for poor outcomes
  - Age
  - Baseline lab values not communicated to hospital staff
  - Higher levels of functional and cognitive impairment present
  - Communication errors result during transfer
    - Treatments
    - Medications
  - Comorbidities

Hospitalization of Elderly Persons

- Increased use of medications
- Invasive procedures
- Diagnostic testing requiring food and fluid restrictions
- Nosocomial infections
- Adverse events
- Poor outcomes

Hospitalization Statistics for Older Persons

- Account for 36% of hospitalizations and 50% of hospital revenues
- 66% of Americans die in hospitals
  - > 80% of the deaths occur in persons 65 years of age or older
  - ¼ of patients were perceived by families to have moderate or severe pain at end of life
  - 20% of all Medicare expenditures used 1 year prior to death

Delirium

- Contributes to
  - Functional decline
  - Higher rates of postoperative complications
  - Longer lengths of hospital stay
- Occurs in 20% of hospitalized older persons
- Risk factors
  - Immobility

Frailty Unplanned

- Unplanned weight loss
- Weakness
- Poor endurance and energy
- Slowness and low activity

Frail Elder

- Largest consumer
  - Healthcare
  - Community services
  - Long-term care
- Number of persons > 85 increasing rapidly, and frailty increases with age
- Frail older persons need to be identified to initiate specialized services
  - Geriatric assessment
  - Multidisciplinary care
  - Specialized geriatric services

Three Pathways Leading to Frailty

- Changes of aging and loss of organ reserve and function
- Diagnosis with several chronic illnesses
- Existence in harmful environments

Signs and Symptoms of Frailty in Common Disorders

- Cancer
  - Cachexia or wasting syndrome
  - Functional decline
  - Cognitive decline
  - Serum albumin less than 2.5 g/100 ml
  - Recurrent diagnoses with secondary infections (pneumonia, skin infections, or urinary tract infection)
  - Unremitting pain

Monitor for Atypical Presentations of Illness

- Confusion or change in orientation
- Falls
- Loss of appetite
- Delirium
- Dehydration
- Atypical pain
- Dizziness
- Incontinence
- Sleep disturbances
- Failures of self-care

Prevention Education

- Physical decline related to modifiable factors
  - Smoking
  - Poor nutrition
  - Physical inactivity
  - Unsafe behaviors
    - Excessive alcohol intake
    - Unsafe driving
    - History of falling
  - Failure to use preventive and screening services
- Advance directives

Acute Care of the Elderly (ACE) Units

- Safe environment
  - Uncluttered halls promote mobility
  - Carpeted floors decrease glare
  - Raised toilet seats improve continence
  - Common lounge area promotes socialization and decreases isolation

Acute Care of the Elderly (ACE) Units

- Discharge planning with the goal of returning the older patient to his or her former living status
- Careful medical and nursing interventions
  - Prevent adverse outcomes
  - Avoid iatrogenic problems

Behavioral Approaches

- Use calming music
- Therapeutic touch
- Other nonpharmacological responses as appropriate

Ethical Care for the Frail Patient

- Honor the patient' s preferences
- Reflect the needs and wishes of families
- Educate regarding option of choosing less aggressive care
- Be consistent with accepted public policy
- Consider risk vs. benefit of treatment

Markers of Poor Quality Care at End of Life

- Development of pressure ulcers
- Use of physical restraints
- Frequent treatment with antipsychotic medications for behavior control
- Treatments carried out with little chance of success

Ethics Committee

- Use for ethical dilemmas that cannot be resolved
- Forum for ethical reflection and discussion of values
- Builds a moral community
- Attempts to meet needs of patient and other persons
- Validates or provide options regarding ethical dilemmas
- Supports the care team in relation to already planned options