

Chapter 20

Circulation

- Effects of aging on the cardiovascular system
 - Heart valves increase in thickness
 - Heart muscle less efficient
 - More time for diastolic and systolic emptying to occur
 - Poor tissue perfusion as a result of other conditions

- Prevention of cardiovascular problems
 - Proper nutrition
 - Adequate exercise
 - Cigarette smoke avoidance
 - Stress management
 - Proactive interventions
 - CRP- C-Reactive Protein

- Hypertension
 - Sys. >140 and a Diastolic >90
- Hypotension- a decline in systolic pressure of 20mmHG or more after rising and standing for 1 minute is postural hypotension and if this occurs 1 hour after eating it is postprandial hypotension

- Congestive Heart Failure
 - Increases with age
 - Leading cause of hospitalization in OA
 - s/s of disease
 - Shortness of breath, wheezing , weight gain, crackles
- Arteriosclerosis
 - definition

- Other diseases
 - Aneurysms
 - Myocardial infarction
 - Arrhythmias
 - Angina
 - Varicose veins
 - Venous thromboembolism

- General considerations for cardiovascular conditions
 - Prevention p. 263
 - Primary
 - Secondary
 - tertiary
 - Keep patient informed
 - Prevent complications
 - Promote circulation
 - Providing foot care

Chapter 21

Digestion and Bowel Elimination

- Significantly fewer OA die from gastrointestinal problems.
- However these problems are often the source of many complaints and discomforts in this age group

Age related changes

- Tongue atrophies
- Saliva production decreases
- Motility decreases
- Decreased absorption of Vitamins B, B12 and D, calcium and iron

- Promoting good GI health
 - Good dental hygiene and visits to the dentist
 - Good fluid intake: fruits and veg.
 - Ambulation to the bathroom following ingestion of food and a period of rest.

- Anorexia
 - Loss of appetite
- Xerostomia
 - Dry mouth
- Hiatal Hernia
- Constipation, bowel obstruction, flatulence, bowel incontinence
- Biliary Tract Disease

Chapter 22

Urinary Elimination

- Age related changes
 - Hypertrophy of the bladder resulting in urinary frequency
 - Thickening of the bladder
 - Inefficient neurological control
 - Prostatic hypertrophy

- Incontinence p. 285

- Types

- Stress
 - Urgency
 - Overflow
 - Neurogenic
 - Functional
 - Mixed

- Benign Prostatic Hyperplasia
 - Definition

 - s/s

 - Treatment

Nursing Considerations for Urinary Conditions

use discretion and dignity when dealing with clients

do not check if a client is wet in front of someone else

don't have them sit on a commode in a hallway or with the door to room open

do not scold a patient for being incontinent

Chapter 23

Reproductive

Age related changes

- Hormonal changes cause the vulva to atrophy which leads to loss of subcutaneous fat and hair loss
- Vaginal epithelium becomes thin and vaginal environment drier
- Cervix, uterus, fallopian tubes and ovaries atrophy
- Breast sag
- Male changes as well
- Reduction in sperm
- Atrophy of testes
- More time required for erection
- Enlargement of prostate

- Reproductive System Health Promotion
 - Annual pap, monthly self breast exams, annual PSA for men, self testicular exams for men

- Atrophic Vaginitis
- Cancer of the Vagina
- Cancer of the cervix
- Dyspareunia common but not necessarily normal finding in older women.
- Breast Cancer
- Cancer of the prostate

Chapter 24

Movement

Effects of aging on the musculoskeletal system

- Reduction in muscle mass and strength
- Impaired capacity for muscle regeneration

- Table 24-1 Aging and Risks to Maintaining an Active State p. 300

Effects of Inactivity in the OA

- Changes in Physiological Function
- Increased Risk of Complications
- Changes in Mood and Self-Concept
- Increased Dependency
- Reduced Opportunities for Socialization

- A good diet is essential in preventing and managing musculoskeletal problems
- Activity promotes optimum musculoskeletal function and reduces complications
- Weight reduction will frequently ease discomforts and reduce limitations

- Fractures
 - Neck of femur and distal radius are common
 - Compression fractures of the vertebrae also common in elderly
 - Fractures heal more slowly; risk of complications greater
- Osteoporosis- most prevalent metabolic disease of the bone
 - Demineralization of the bone occurs
 - May cause kyphosis and reduction in height

- Osteoarthritis is the leading cause of physical disability in older people
- It is deterioration and abrasion of bone cartilage
- Unlike rheumatoid arthritis it does not cause deformity, crippling and inflammation
- Osteoarthritis affects several joints rather than a single joint

Nursing Implications

- Prevention of fractures
- Managing pain
- Promoting independence
 - Canes, walkers and assistive devices can aid in compensating for handicaps and should be used when feasible

Chapter 25

Neurologic Conditions

Effects of aging on the Nervous system

- Cerebral blood flow decreases by approx. 20%
- Intellectual performance tends to be maintained til at least age 80 although more time is needed to perform the task
- Verbal skills are maintained til age 70 after which there is a decline in vocabulary
- Decline in the function of nerves mediating taste and smell. Increased levels of taste, sound, scents, touch and lighting are required for perception as compared to younger adults.

Subtle Indications of Neurological Problems

- P. 25-1 p. 323
 - New headaches that interfere with sleep and occur early morning
 - Change in vision, sudden deafness, ringing in ears
 - Mood personality changes
 - Clumsiness, unsteady gait
 - Numbness, tingling
 - Unusual pain or sensation over nerve
 - Altered level of consciousness

- Parkinson's Disease- ability of the central nervous system to control body movements
 - Incidence increases with age
 - Peaks at age 75
 - s/s: faint tremor, drooling, difficulty swallowing, bradykinesia(slow movement),poor balance
 - Characteristic Symptom- shuffling gait while leaning forward at the trunk

- Major Nursing Goals
 - Prevention of injury
 - Promoting independence as possible

- Transient Ischemic Attacks (TIA's)
 - Temporary neurological event
 - Symptoms can last from minutes to hours
 - Tx: correct underlying cause, anticoagulant therapy
 - A significant concern regarding TIA's is that they increase the risk of sustaining a CVA

CVA

- Cerebrovascular Accident
 - 3rd leading cause of death in older adults
 - Most often caused by a partial or complete cerebral thrombosis

General Nursing Considerations for Neurologic Conditions

- Older patients with neurological conditions face limitations imposed both by the disease and the aging process.
- Assistive devices in the home can extend the time that an OA can live independently
- Personality changes often accompany neurologic problems
- Preventing Injury

Chapter 26

Sensory Deficits

Effects of Aging on Sensory Function

- Reduced elasticity of the lens
- Visual acuity progressively declines due to reduced pupil size
- Difficulty with night vision and in dimly lit areas
- Dark and light adaptation takes longer
- Sensitivity to glare increases due to cataracts

- Cataracts

- Clouding of the lens that causes the lens to lose transparency
- Leading cause of low vision in the elderly
- Difficulty reading signs, feel that there is a film covering the eye.

- Glaucoma
- Macular Degeneration- Most common cause of blindness in OA over age 65
- General Nursing Considerations for Sensory Deficits

- Presbycusis
 - Definition and Effect on Communication
 - Age-related sensorineural hearing loss
 - May cause speech to be inaudible or distorted
 - OA becomes self-conscious
 - Difficulty using the phone

- Use of Hearing Aids
- Problems Associated with Hearing Aids
- Suggestions for Use

Nursing Interventions for Sensory Deficits

Measures to Compensate for Visual Deficits in Older Adults

- P. 337
- Box 26-2
 - Face person when speaking
 - Use soft indirect lights
 - Large print material
 - Place items within visual field
 - Avoid use of low tone colors
 - Identify personal items including wheelchair with a unique design rather than letters.

- Nursing Interventions
 - Speak clearly and distinctly, in a low frequency but an audible tone facing the OA
 - Avoid shouting as it increases the frequency
 - Cup hands over the ear when speaking into it

- Impact of Visual Impairment
 - Important in communication
 - Can not interpret facial expressions
 - Can not lip read
 - Social isolation

- Nursing Interventions for the Visually Impaired OA
 - Face the OA, exaggerate facial expressions
 - Ample lighting
 - Use large print

Chapter 27

Endocrine Conditions

- Diabetes
 - Definition
 - s/s
- Hypothyroidism
 - Definition
 - s/s
- Hyperthyroidism
 - Definition
 - s/s

Chapter 28

Integumentary Function

- Effects of Aging on the Skin
 - Lines and wrinkles, thicker nails and graying hair
 - Decline in rate of hair growth
 - Fragility of the skin = skin tears, bruising and ulcers

- Integumentary Health Promotion
 - Avoid drying agents, coarse clothing and irritants to skin.
 - Avoid tanning beds
 - Perform skin inspection
 - A
 - B
 - C
 - D

- Pruritis- most common dermatological problem among the elderly

- Causes

- Pressure Ulcers- tissue anoxia and ischemia resulting from pressure can cause necrosis, sloughing and ulceration of tissue
- Also called a decubitus ulcer
- Most common sites:
 - Sacrum
 - Greater trochanter
 - Ischial tuberosities

- Occur because:
 - Skin is fragile
 - Poor nutritional state
 - Reduced sensation of pressure and pain
 - Affected by immobility and edematous conditions

- Stages of pressure ulcers p. 364 Box28-1

- Nursing Interventions
 - Psychological support
 - Homeopathic meds
 - Herbal medicines
 - Guided imagery
 - Biofeedback
 - Relaxation exercises
 - Nutritional supplements

Chapter 29 and 30

Immunity and Infection

Health practices that stimulate immunity

- Diet – milk, yogurt, nonfat cottage cheese, eggs, fresh fruits and vegetables, nuts garlic, onion, pure honey and unsulfured molasses
- Fasting is becoming popular
- Exercise
- Immunizations- next slide
- Stress management
- Careful use of antibiotics

- Immunizations –
 - Pneumococcal – once in a life time unless vaccinated before age 65
 - Influenza vaccine- annually
 - Tetanus and diphtheria – every 10 years
 - Measles, mumps and rubella annually
 - Varicella – once
 - Special situations

Interventions

- Obtain Influenza and pneumonia vaccine
- Avoid exposures to people with respiratory disease/ infections
- OA due not experience chest pain associated with pneumonia as younger individuals do
- Teach deep breathing exercises
- Raise head of bed 30% unless contraindicated
- Monitor mental status

- OA experience more severe infectious diseases
- High rate of hospitalization
- Hospitalization can also lead to introduction of pathogens

- Careful use of Antibiotics

- Serious consequences have resulted from overuse or misuse of antibiotics

- Use alternatives to antibiotics whenever possible
 - Do not have and use antibiotics for future use
 - Take antibiotics for prescribed timeframe

- Infections have a more profound affect on the OA.
- Since the mid 1980's the incidence of septicemia has more than doubled
- Increase in iatrogenic infections e.g. urinary tract infection from a foley.

- Most common Infections:
 - Urinary tract Infection
 - Pneumonia
 - Influenza
 - Tuberculosis
 - Scabies
 - Clostridium difficile
 - Methicillin Resistant Staphylococcus Aureus MRSA
 - Vancomycin Resistant Enterococcus