Geriatric History and Physical Examination

History[1,2]

1. First assess whether patient can adequately understand/ respond to questions (avoid causing discomfort or indignity)
    - Hearing
        - Screen for hearing loss
            - Hearing loss can be accurately assessed using simple questionnaires[3]
            - Pts with chronic otitis media, sudden hearing loss, or who fail any screening tests should be referred to otolaryngologist (SOR:C)[4]
        - Counsel on hearing aids
            - Hearing aids are treatment of choice for older patients with hearing impairment (SOR:A)[5]
        - See Hearing impairment
    - Vision
        - High prevalence of under-corrected visual impairments
        - Most common vision impairments
            - presbyopia
            - glaucoma
            - diabetic retinopathy
            - cataracts
            - age-related macular degeneration (ARMD)
        - See Visual impairment
    - Cognitive abilities
        - Complaints of memory loss should be evaluated and followed for progression
    - Caregiver
        - Confirm / obtain info from family or caregiver
            - Assess and follow carefully if cognitive decline described
            - Informant-reported memory loss is typically more reliable than patient-reported memory loss
2. Diet, nutritional assessment
    - Screen for weight loss,
    - Nutrition screening questionnaire
        - Simplified Nutrition Assessment Questionnaire (SNAQ)[6]
    - Consider nutrition referral if pt at risk for weight loss >5% in 6 months according to questionnaire
3. Functional status
    - Assess ability to perform activities of daily living (ADLs)
        - Bathing, dressing, toileting, continence, feeding, transferring
    - Instrumental ADLs
        - Food preparation, shopping, housekeeping, laundry, finances, medication, use of telephone and transportation
    - See Functional assessment

4. Affective disorders, depression
    - See Depression scale
5. Health maintenance
    - Gait abnormalities, falls
        - Leading cause of death from injury
        - Results from decrease in vision, balance, sensory perception, strength and coordination
        - Often precipitated by meds
        - See Falls
    - Sleep difficulties
        - See Insomnia
    - Dental, vision, medical checkups
    - Education regarding smoking cessation
    - Screening for prostate, breast, cervical and colorectal cancers
        - Prostate cancer screening[7]
            - Screening in men greater than 75 years of age is discouraged (USPSTF D recommendation)
        - Breast cancer screening[8]
            - Biennial screening mammography recommended for women ages 50-74 (USPSTF B recommendation)
            - USPSTF concludes that evidence is insufficient to recommend for or against screening mammography for women 75 and older (USPFTF I recommendation)
        - Cervical cancer screening[9]
            - Screening is discouraged in women over the age of 65 who have had adequate recent screening and are at low risk for cervical cancer (USPSTF D recommendation)
            - Routine screening discouraged in women who have had a hysterectomy for benign disease (USPSTF D recommendation)
        - Colorectal cancer screening[10]
            - Using fecal occult blood testing, sigmoidoscopy, or colonoscopy recommended from 50-75 years of age (USPSTF A recommendation)
            - Screening from age 76-85 may not be helpful (USPSTF C recommendation)
            - Screening from age older than 85 years old is discouraged (USPSTF D recommendation)
        - See Cancer screening
    - Osteoporosis
        - Bone mineral density testing
            - USPSTF recommends screening in women 65 and older (USPFTF B recommendation)[11]
        - See Osteoporosis
    - Immunizations
        - Td, influenza vaccine, pneumococcal

        - Summary of recommendations[12] See Immunizations
    - Medication issues, polypharmacy
        - Ask patients to bring medications or a list
        - Determine creatinine clearance when drugs are taken that depend on renal excretion
6. Sexual history
    - Prior and present sexual partners
    - Exposure to sexually transmitted diseases
7. Substance Abuse (past and current)
    - Alcohol use
    - Illicit drug use
    - Overuse/misuse of over-the-counter medications
    - Tobacco use
8. Support systems
    - Social interactions, hobbies
    - Family, community support
9. Caregiver issues
    - Ability to take care of patient
    - Abuse/ neglect
    - Need for assisted living/nursing home
10. Advanced directive discussion
    - Living Will
    - Power of Attorney (durable/medical)

Physical Exam

1. See also Adult H&P
2. Vital signs
    - See Age-related tables
    - Predisposition to hypothermia due to decreased amount of subQ tissue
        - Geriatric patients with infection may have normal temperature
3. Skin
    - Reduced skin turgor
    - Atrophy of epidermis, hair follicles and sweat glands
        - Loss of skin elasticity and collagen
        - Thinning of skin
        - Hair loss
        - Prolonged time to heal due to decreased vascularity of dermis
    - **Senile lentigo/lentigines** (liver spots, solar lentigo, old age spots)
        - Brown macules on hands, forearms, face
        - Caused by localized epidermal hyperplasia and increased melanin production
        - Common in those age >40, especially those with sun exposure
        - Considered benign
    - **Solar keratosis**
        - Raised yellow-brown horny papule/ plaque on ears, neck, trunk, hands

        - Epidermal hyperkeratosis
    - **Senile purpura**
        - Extravasated blood from capillaries that have lost elastic support
        - Usually on hands and forearms
        - Due to trauma (even minor/minimal)
        - Secondary to sun-induced damage to connective tissue
    - Sebaceous gland hyperplasia
        - Yellowish glands with central pore
        - Forehead, nose
    - Pressure sores (decubitus ulcers)
        - Reposition every 2 hrs
        - Minimize moisture, esp. if incontinent
        - Routine skin care
        - Improved nutrition
    - Signs of malignancy, abuse, falls
4. Head and neck
    - Evaluate for signs of trauma, falls
    - Palpate temporal arteries for pulse, scalp tenderness:
        - Giant cell arteritis
            - Unilateral vision changes
            - Headaches
            - Jaw pain
    - Assess for carotid bruits
    - Palpate thyroid
    - Check for facial asymmetry
5. Eyes
    - Ptosis: laxity of eyelids
    - Arcus senilis
    - Nystagmus
    - Corneal ulcers, keratitis, dry eyes
        - Decreased tear production
    - Presbyopia
        - Loss of lens elasticity
    - Decreased visual acuity
        - Macular degeneration, floaters, cataracts
6. Ears
    - Check hearing by occluding one ear and whispering or rubbing fingers together near unoccluded ear
    - Impaired high-frequency tone hearing most common
    - Conductive deafness: otosclerosis
    - Dizziness: hair cell degeneration
    - Check for cerumen impaction
7. Nasopharynx / oropharynx
    - Decreased taste/ smell
    - Fitting of dentures, remove dentures for oral exam
    - Decreased mucus production (age-related xerostomia)

        - Increased risk of URIs
    - Voice changes from loss of vocal cord elasticity
    - Tooth loss, gum recession, dryness of mouth
8. Respiratory
    - Decreased vital capacity
        - Loss of lung elasticity
        - Alveolar atrophy
    - Kyphoscoliosis
    - Decreased mucus production
        - Susceptibility to infections
9. Cardiac
    - Systolic murmurs in >50% geriatric Pts
    - Aortic dilatation, regurgitant valves
        - Loss of elasticity
    - Stenotic valves, heart blocks/arrhythmias
        - Degeneration, sclerosis
        - Aortic stenosis most common murmur in elderly
    - Hypertension
        - Noncompliant arteries
    - Atherosclerosis
    - Loss of peripheral pulses common
10. Breast
    - Increased fatty tissue
    - Gynecomastia in males
    - Increased incidence of cancer with increasing age
11. Gastrointestinal
    - Altered secretion, motility, and absorption
        - Mucosal atrophy
    - Diverticulosis
    - Chronic constipation
    - Femoral and Inguinal hernias
    - Rectal exam
        - Check stool for occult/gross blood
    - Increased half-life of lipid-soluble drugs
        - Decrease in hepatic mass and blood flow
12. Genitourinary
    - Decreased GFR
        - Decrease in renal function and renal blood flow
    - Assess bladder
    - Examine for signs of sexually transmitted diseases
    - Prostatic nodules or hypertrophy
    - Vaginal dryness, atrophy, thinning - usually due to estrogen deficiency
13. Endocrine
    - Hypothyroidism
    - Hyperglycemia (diabetes)
    - Decreased secretion of hormones

        - Increased ADH, ANP, norepinephrine
14. Musculoskeletal
    - Assess strength and tone
        - Often see generalized muscle atrophy
        - Decreased strength
    - Polymyalgia rheumatica
        - Proximal muscle strength weakness
        - Symmetric pain and weakness
    - Increased osteoclastic activity
        - Thinning of bone, osteoporosis
    - Decrease in height, kyphoscoliosis
    - Joint stiffness, arthritis leads to decreased ROM
    - Assess feet or nail care, calluses, deformities and ulcerations, esp if diabetic
15. Nervous System
    - Check mental status
    - Evaluate speech for aphasias
        - Wernicke's (sensory), Broca's (expressive), global
    - Evaluate resting motor dysfunction
        - Tremor, twitching, jerking, chewing
    - Dementia
        - Screening: Insufficient evidence to recommend for / against routine screening in older adults
        - CVA
            - Sudden onset
        - Alzheimer's Dz
            - Insidious onset, often family Hx
        - Parkinson's Dz
            - Rigidity and bradykinesia
        - Normal pressure hydrocephalus (NPH)
            - Spastic gait, urinary incontinence
        - Tumor
        - Subdural hematoma
            - Can develop after a fall
    - Check reflexes, vibration sense
        - Asymmetric reflexes may be due to CVA, myelopathy
    - Evaluate gait
        - Assess need for rehab / physical therapy
        - Assess mobility "Get up and Go" test
            - Have Pt sit in chair, then rise, walk 10 ft
            - Note hand use, ataxia, ease of turns
            - Normal time is 7-10 seconds
    - Romberg test-positive test can indicate increased risk of falls
        - Examiner stands behind patient
        - Pt's feet together, arms out with palms up
        - Have patient tilt their head back and close their eyes

        - If patient starts to lose balance, have them open both eyes
            - Lack of balance without visual clues (eyes closed) points to dorsal column lesion
            - Lack of balance while eyes open points to cerebellar lesion
    - Rapid alternating movements
16. Hematologic
    - Decreased bone marrow, blood cell production
17. Immune
    - Decreased T cell number and proliferation
    - Impaired humoral immunity – B cells/antibodies
    - Check for lymphadenopathy

Challenges of Geriatric Patients

1. Altered presentation of disease
    - Majority of pts over 70 do not have chest pain w/ MI
        - Present with SOB, falls, confusion, palpitations
    - Hyperthyroidism often presents as depression, apathy rather than tachycardia, sweating, and anxiety
2. Nonspecific presentation of disease
    - Not acting themselves or confusion may be only symptom of an underlying disease (including infection)
3. Underreporting of conditions
    - Patients conclude symptoms are normal for people their age
4. Multiple underlying pathologies may confuse the picture
5. Multiple medications
    - Evaluate for adverse side effects/interactions
    - Goal for treating geriatric patients is often not to cure disease, but to preserve patient's quality of life – need to discuss and negotiate goals with patient
6. Difficult social situations often require a multidisciplinary approach

Clinician Resources

1. End of Life/Palliative Education Resource Center http://www.eperc.mcw.edu/EPERC/FastFactsandConcepts
2. Geriatric Assessment Tools and Readings http://geriatrics.uthscsa.edu/resources.asp

References

1. Swartz, Mark. *Textbook of Physical Diagnosis*- 4th edition. W.B Saunders Company, 2002.
2. Institute for Clinical Systems Improvement. Preventative services in adults. Bloomington, MN, Institute for Clinical Systems Improvement; 2005 Oct. p.81.
3. Reuben DB, Walsh K, Moore AA, Damesyn M, Greendale GA. Hearing loss in community-dwelling older persons: national prevalence data and identification using simple questions. J Am Geriatr Soc. August, 1998;46(8):1008-1011. http://www.ncbi.nlm.nih.gov/pubmed/9706892?dopt=Abstract

4. El Sawy B, Higgins KE. The Geriatric Assessment, The American Family Physician, 2011; 83(1): 48-56. http://www.aafp.org/afp/2011/0101/p48.html
5. Yueh B, Shapiro N, MacLean CH, Shekelle PG. Screening and management of adult hearing loss in primary care: scientific review, JAMA, 2003; 289(15): 1976-1985. http://jama.ama-assn.org/content/289/15/1976.abstract
6. Wilson MMG, Thomas DR, Rubenstein LZ, Chibnall JT, Anderson S, Baxi A, et al. Appetite assessment: simple appetite questionnaire predicts weight loss in community-dwelling adults and nursing home residents. American Journal of Clinical Nutrition. 2005;82(5):1074- 1081. http://www.ajcn.org/content/82/5/1074.full
7. Chou R, Croswell JM, Dana T, Bougatsos C, Blazina I, Fu R, et al. Screening for Prostate Cancer: A Review of the Evidence for the U.S. Preventive Services Task Force, Annals of Internal Medicine, October 7,2011. http://www.uspreventiveservicestaskforce.org/uspstf12/prostate/prostateart.htm (Accessed November 2011).
8. Mandelblatt JS, Cronin KA, Bailey S, Berry DA, de Koning HJ, Draisma G, et al. Effects of mammography screening under different screening schedules: Model estimates of potential benefits and harms. Annals of Internal Medicine, November 17, 2009; 151:738-747. http://www.annals.org/content/151/10/738.full
9. U.S. Preventive Services Task Force. Screening for cervical cancer: Recommendations and rationale, January 2003. http://www.uspreventiveservicestaskforce.org/3rduspstf/cervcan/cervcanrr.htm (Accessed November 2011)
10. US Preventive Services Task Force. Screening for Colorectal Cancer, Annals of Internal Medicine, November 4, 2008;149(9):627-37. http://www.annals.org/content/149/9/627.long
11. US Preventive Services Task Forcel. Screening for Osteoporosis, Annals of Internal Medicine, March 1, 2011;154: 1-40. http://www.ncbi.nlm.nih.gov/pubmed/21242341
12. Advisory Committee on Immunization Practices. Recommended adult immunization schedule: United States, 2011. Annals of Internal Medicine, February 1, 2011;154(3):168-73. http://www.annals.org/content/154/3/168.full.pdf+html

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