Module # 7: Comprehensive Geriatric Assessment

Geriatrics, Palliative Care and Interprofessional Teamwork Curriculum

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I. Overview

As patients age, functional impairments (cognitive, physical, psychological and social) can have a profound effect on their ability to maintain their health and to live independently in the community. Many of these impairments can be treated simply and inexpensively if they are identified early. Others require more extensive evaluation and management. In the outpatient setting, the Comprehensive Geriatric Assessment is an important tool that can identify a broad range of these functional impairments and their interaction with patients' underlying medical problems, home environments and social support systems, allowing for early intervention and treatment.

In the inpatient setting, the elderly face an additional set of challenges often termed the "hazards of hospitalization" that include prolonged bed rest, tethering, functional incontinence, unfamiliar environments, falls, and pressure ulcers. These can lead to further functional decline, worsening of chronic illnesses and poor response to treatment for patients' presenting medical problems. The Comprehensive Geriatric Assessment is an important tool for addressing the full spectrum of issues confronting hospitalized older patients with the ultimate goals of treating acute illnesses while maintaining function, and return to independent living in the community.

Ideally, an interdisciplinary geriatrics team is available to perform the CGA. A physician, nurse practitioner or physician's assistant needs to perform the medical history and physical exam components of the CGA. The remainder of the CGA's domains can be assessed by other members of the team.

II. Learning Objectives

1. Briefly describe the goals and domains of a functional geriatric assessment.
2. Know when and where a general geriatric assessment should be conducted
3. Understand the risk posed to elderly patients by the 'hazards of hospitalization'.

III. Inpatient Comprehensive Geriatric Assessment

The current CGA used on the inpatient service at the Bronx VA assesses 18 different areas of function. The outpatient CGA assesses 17. (Delirium is omitted.) The following is an annotated outline of the inpatient CGA based on the *Geriatrics Review Syllabus, Sixth Edition* and *2006-2007 Geriatrics at your Fingertips.*

A. Delirium is the most common hazard of hospitalization in older adults, and is defined as an acute disorder of attention and cognition.

1. Frequently under-recognized in the hospitalized patient
    a) Missed more often by physicians than by nurse
    b) Requires formal assessment – Confusion Assessment Method (CAM)

A. Can lead to poor clinical outcomes
    a) Increased risk of death
    b) Prolonged hospital stay
    c) Nursing home placement
    d) Poor functional recovery

B. Risk factors for developing delirium
    a) Dementia
    b) Advanced age
    c) Sleep deprivation
    d) Immobility
    e) Dehydration
    f) Pain
    g) Sensory deficit

C. Causes of delirium – many are reversible or treatable
    a) Medications
    b) Infections
    c) Metabolic abnormalities
    d) Cardiovascular problems
    e) Neurological problems
    f) Fecal impaction
    g) Urinary retention
    h) Postoperative state
    i) Sleep deprivation

B. Dementia: Memory impairment combined with sufficient loss of other cognitive function to interfere with daily living.

1. Can lead to:
    a) Loss of independence
    b) Care giving expenses
    c) Falls
    d) Accidents

e) Delirium
f) Difficulty following medical regimen
g) Death

2. Prevalence increases with age

3. Most (60-70%) dementias in the US are due to Alzheimer's Disease

4. A small percentage of dementias have a reversible cause
   a) Vitamin B12 deficiency
   b. Thyroid disease
   c) Depression
   d) Neuro-syphilis

5. Both history from family or caregivers, and formal assessment essential for diagnosis
   a) Mini-Cog (Clock drawing test and three item recall)
   b) Mini Mental State Exam (MMSE)
   c) Animal naming test
   d) Formal neuro-psych testing
   e) Early treatment can improve quality of life and maximize function while allowing patient and family establish goals of care and plan for the future

C. Depression

1) Major Depression, while somewhat less frequent among the elderly than among the middle-aged, is under diagnosed.

2) Depressive symptoms that do not meet DSM-IV criteria for Major Depression are common among the elderly.

3) Presenting symptoms are more frequently anhedonia and somatic complaints such as lack of energy, which patients may fail to mention to health care providers thinking they are just part of older age.

4) Untreated Major Depression or depressive symptoms can lead to
   a) Worsening of underlying medical illness, especially cardiac disease
   b) Loss of physical function
   c) Pseudo-dementia
   d) Suicide
   e) Death

5) It is important to screen elderly patients for depression using a standardized instrument such as the Geriatric Depression Scale (GDS) which comes in 5, 15 and 30 question versions and the Patient Health Questionnaire (PHQ-9)

D. Gait and Balance
    1) A variety of factors contribute to gait and balance abnormalities as patients age
        a) Decreased muscle mass and strength
        b) Injuries
        c) Arthritis
        d) Neuropathies
        e) Neurologic illness
        f) Sensory deficits
            i. Visual
            ii. Proprioceptive
            iii. Vestibular
        g) Medications

    2) Alterations in gait and balance can lead to falls

    3) There are effective interventions to improve gait and balance
        a) Physical therapy
        b) Occupational therapy
        c) Assistive devices
        d) Treatment of underlying medical illness
        e) Adjustment of medications

    4) It is important to screen elderly patients for gait and balance problems using a standardized instrument such as the Performance-Oriented Mobility Assessment (POMA)

E. Falls
    1) Can lead to significant morbidity and loss of independence

    2) Etiology is multi-factorial
        a) Intrinsic
            i. Poor balance
            ii. Weakness
            iii. Gait abnormalities
            iv. Chronic illness
            v. Dementia
            vi. Sensory Deficits
        b) Extrinsic – Poly-pharmacy
        c) Environmental
            i. Clutter
            ii. Rugs
            iii. Poor lighting

            iv. Uneven surfaces

v. Lack of appropriate safety devices such as grab bars in the bathroom

3) It is important to take a careful history of falls over the last year, and to screen for risk factors.

F. Hearing

1) Hearing loss is common as people age.

2) Screening can be performed with a whisper test.

3) Hearing loss can lead to
   a) Social isolation
   b) Decreased mobility
   c) Loss of self esteem
   d) Anger
   e) Difficulties in participating in medical encounters
   f) Decreased quality of life

4) There are effective methods to improve hearing and communication
   a) Hearing aids
   b) Personal amplification devices
   c) Adaptive equipment
   d) Communication Enhancement Strategies

G. Vision

1) Visual impairment is common as patients age

2) Visual impairment can lead to
   a) Falls
   b) Motor vehicle accidents
   c) Decrease quality of life
   d) Decreased ability to perform ADLs and IADLs
   e) Decreased functional independence

3) Some causes of visual impairment are easily and effectively treated
   a) Refractive error
   b) Cataracts

4) Others require more extensive work-up and treatment
   a) Glaucoma
   b) Macular degeneration
   c) Diabetic retinopathy

5) All benefit from early identification and intervention.

6) Screening with a Snellen chart is quick and easy.

7) All elderly patients should have yearly ophthalmologic screening for glaucoma.

H. Activities of Daily Living (ADLs)

1) Difficulties in performing these basic activities can stem from physical and/or cognitive deficits.

2) The incidence of ADL impairment increases with age.

3) Screening for ADL impairment should be part of a comprehensive geriatric assessment.

4) In the hospitalized patient, it is important to ascertain his or her pre-hospitalization functional level as this will help establish reasonable rehabilitation goals

5) Use a screening tool that assesses
   a) Toileting
   b) Feeding
   c) Dressing
   d) Grooming
   e) Ambulation
   f) Bathing

I. Instrumental Activities of Daily Living (IADLs)

1) Difficulties in performing these complex activities of daily living can arise from physical deficits but more often arise from cognitive deficits.

2) The incidence of IADL impairment increases with age.

3) Screening for IADL impairment should be part of a comprehensive geriatric assessment.

4) In the hospitalized patient, it is important to ascertain his or her pre-hospitalization functional level as this will help establish reasonable rehabilitation goals

5) Use a screening tool that assesses
   a) Telephone use
   b) Shopping
   c) Food preparation
   d) Housekeeping
   e) Laundry

f) Transportation
g) Managing medication
h) Managing finances

J. Pain

1) Pain is common among the elderly yet often goes undiagnosed or undertreated

2) Untreated pain can lead to
   a) Deficits in ADLs
   b) Depression
   c) Decreased cognitive function
   d) Sleep disorders
   e) Decreased appetite
   f) Social isolation

3) Thorough assessment should include
   a) Character
   b) Onset
   c) Duration
   d) Location
   e) Severity
   f) Relieving factors
   g) Exacerbating factors
   h) Physical examination

K. Medications

1) Elderly patients often take multiple prescription and over the counter medications.

2) Elderly patients often have multiple co-morbidities.

3) Elderly patients often have multiple health care providers at multiple institutions

4) There are physiologic changes in the elderly that can affect drug metabolism.

5) Physical, cognitive and psycho-social functional impairments may prevent patients from taking medications as prescribed.

6) There can be complex interactions among the patient's medications, co-morbidities, physiologic changes, substance use and even food that can have deleterious effects for patients' health.

7) It is essential to have a complete list of all prescription and over the counter medications including vitamins and supplements.

8) Every effort should be made to simplify patients' regimens and to provide the necessary aids for proper administration.

L. Nutrition

1) Both weight loss and obesity can be problems in old age.

2) Weigh loss and weight gain can be symptoms of some underlying illness and can exacerbate others.

3) Obtain a history from the patient or care giver about weight changes, medications and diet.

4) Measure current weight and compare to prior weights.

5) Assess for risk factors for poor nutritional status.
   a) Substance abuse
   b) Dementia
   c) Decreased exercise
   d) Depression
   e) Functional deficits
   f) Limited education
   g) Limited mobility
   h) Medical problems, chronic illness
   i) Medications
   j) Poor dentition
   k) Restricted diet
   l) Social Isolation

M. Dentition

1) Almost 50% of Americans over 85 are edentulous

2) Many elderly Americans do not seek treatment for periodontal disease, caries, missing teeth and other areas of oral health because of the costs associated with dental care, which are not covered by Medicare.

3) Broken or missing teeth and poor oral hygiene can lead to
   a) Poor nutrition
   b) Difficulties in speech and communication
   c) Social isolation
   d) Poor self image

4) Evaluation of dentition and oral health is an important part of the Comprehensive Geriatric Assessment.

N. Urinary Incontinence

1) Urinary incontinence is not a normal aspect of aging.

2) Risk factors for UI include
   a) Advanced age
   b) Parity
   c) Delirium
   d) Dementia
   e) Depression
   f) TIA and stroke
   g) Heart failure
   h) Constipation
   i) Fecal incontinence
   j) Obesity
   k) Cough
   l) COPD
   m) Chronic cough
   n) DM
   o) Impaired mobility
   p) Impaired ADLs
   q) Medications

3) Urinary incontinence can lead to
   a) Cellulitis
   b) Pressure ulcers
   c) UTIs
   d) Sleep deprivation
   e) Social withdrawal
   f) Falls and fractures
   g) Depression
   h) Sexual dysfunction

4) Patients often fail to complain to their health care providers about UI because
   a) They assume it's a normal part of aging
   b) They are embarrassed

5) Many factors leading to UI can be corrected or improved, leading to improve function and quality of life

6) It is important to ask all elderly patients about UI and the risk factors that can lead to UI.

O. Bowel Function

1) Constipation is a source of discomfort for many elderly patients.

2) Untreated, constipation can lead to
    a) Urinary tract infection
    b) Delirium
    c) Pain
    d) Urinary incontinence

3) Fecal incontinence is less common but can be very distressing

4) As with urinary incontinence, patients are often reluctant to discuss bowel problems with their health care providers. It is therefore the health care provider's responsibility to ask.

P. Social Situation and Support
    1) With impairments in physical and cognitive function, older patients are more in need of community and family supports than younger patients.

    2) It is important to screen patients for both current support systems and finances and to assess for future needs.

Q. Substance Use
    1) Alcohol is the most common drug of abuse in older patients.

    2) Substance abuse can lead to
        a) Poor control of medical problems
        b) Depression
        c) Family discord
        d) Social isolation
        e) Homelessness

    3) It is important to screen for use of alcohol, illicit drugs and improper use of prescription drugs.

R. Healthcare Proxy/Advance Directives - Every visit to a health care provider is an opportunity to discuss patient wishes regarding health care proxy and advance directives.