Geriatric Assessment

Nouansy Wilton MD
Brooke Army Medical Center
An aging America
- 1998: Age 65+ numbered 34 million
- 2030: Age 65+ will number 70 million
- Fastest growing segment of the population are elders over age 85

Life expectancy is increasing

As the population ages, more emphasis placed on
- functional decline
- maintaining quality of life
Aged Population as a Share of Total U.S. Population Continues to Grow

Percent of total population

Population aged 65 and over

Note: Projections based on intermediate assumptions of the 2002 Trustees Report.
Fig. 2.1. Total population (in millions) by age group and sex.
An Increasing Life Expectancy

Life Expectancy - United States

- United States Average Life Expectancy
- United States Male Life Expectancy
- United States Female Life Expectancy

www.data360.org
Majority of elderly will be cared for by internists and family practitioners!
Percentage Distribution of Patient Visits by Physician Specialty by Those Aged 65 and Older and Enrolled in Medicare (2001)

- Specialty (Percentage)
  - Ophthalmology (55.8%)
  - Cardiovascular (53.9%)
  - Urology (46.2%)
  - General internal medicine (38.9%)
  - General surgery (32.9%)

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Proportion of urologic operations in children vs. geriatric patients

Proportions of Urologic Operations

- Urinary
- Genital

Percent

System

% Children
% Geriatric
Geriatric Assessment

- Multidimensional, multidisciplinary diagnostic instrument
- Used to screen and diagnose
  - physical impairment
  - psychosocial impairments
  - functional impairments
How it differs from a standard medical evaluation

- Focuses on elderly individuals with complex problems
- Emphasizes functional status and quality of life
- Frequently takes advantage of an interdisciplinary team of providers
Why do an assessment?

- Made to develop a comprehensive plan for prevention, treatment, and rehabilitation
- Effective in multiple settings (inpatient, outpatient, home visits) and models (primary, consultative service)
- May reduce mortality and improve patient’s physical and cognitive functional status at no additional cost
Components of a geriatric assessment

- Medical
- Cognitive
- Functional
- Social support
- Economic
- Environmental
- Prevention
- Advance directives
How to conduct an office-based geriatric assessment

- Send out pre-visit questionnaire (e.g., UCLA)
- Use brief screening tests (e.g. Lachs) or single questions when possible
- Use more detailed tests only when indicated
- Have forms handy
- Train nursing and ancillary staff to perform screening tests
- Get an amplifier for your clinic
Communication strategies

- Use a well-lit room
- Minimize extraneous noise
- Minimize interruptions
- Inquire about hearing deficits; raise voice volume accordingly
- If necessary, write questions in large print
- Allow ample time for patient to answer
Pre-visit Questionnaire

- Will contain usual information (PMH, PSH)
- Will also contain information pertinent to geriatric assessment
  - social history
  - polypharmacy
Underreporting of symptoms common in the elderly
Many elderly attribute treatable symptoms to “aging” and believe “nothing can be done about it anyway”
1/2-1/3 of symptoms may go unreported to physicians
So it's important to do a “geriatric ROS”
Geriatric ROS includes:
- Memory loss
- Falls
- Urinary incontinence
- Weight loss
- Pain
- Sexual dysfunction
Screening for Specific Conditions

- Vision loss
- Hearing Loss
- Problems with mobility
- Depression
- Cognitive impairment
- Incontinence
Lachs Screening Test

- Simple screen
- Similar version validated by Moore and Siu in 1996
- Good inter-rater reliability
- Easy to use
- 7-10 minutes to administer
- Can be administered by non-MD personnel
Areas Covered in Lachs Screen

- Functional status
- Mobility
- Nutrition
- Vision
- Hearing
- Cognitive function
- Depression
### One Page Simple Geriatric Screen

**Patient Name: ___________________________  Date: ________________**

<table>
<thead>
<tr>
<th>Assessment Procedure</th>
<th>Abnormal</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. &quot;Do you have difficulty with eyesight?&quot;</td>
<td>Yes/No</td>
<td>Refer; Test each eye (with glasses)</td>
</tr>
<tr>
<td>2. Jaeger Card or Snellen eye chart</td>
<td>Can’t read 20/40</td>
<td>Refer; Test each eye (with glasses)</td>
</tr>
<tr>
<td>3. Whisper chart sentence @ 6-12 inches (Out of visual view) OR audiometry</td>
<td>Unable to hear</td>
<td>Common check; Refer/refer/HHI</td>
</tr>
<tr>
<td>4. &quot;Touch the back of your head with your hands&quot; OR &quot;Pick up the pencil.&quot;</td>
<td>Unable to do either</td>
<td>Further exam; Consider OT</td>
</tr>
<tr>
<td>5. &quot;Rise from your chair (do not use arms to get up), walk 10 feet, turn, walk back to the chair and sit down.&quot;</td>
<td>Observed problem Or unable in &lt;15</td>
<td>Tinetti Further exam Home eval &amp; PT</td>
</tr>
<tr>
<td>6. &quot;Have you had any falls in the last year?&quot;</td>
<td>Yes</td>
<td>Tinetti Further eval Home eval &amp; PT</td>
</tr>
<tr>
<td>7. &quot;Do you have trouble with stairs, lighting, bathroom, or other home hazards?&quot;</td>
<td>Yes/No</td>
<td>Further exam Home eval &amp; PT</td>
</tr>
<tr>
<td>8. Weight/BMI or loss of 5% or more</td>
<td>BMI &lt;21 or yes</td>
<td>Nutrition/eval</td>
</tr>
<tr>
<td>9. &quot;Do you have a problem with urine leaks or accidents?&quot;</td>
<td>Yes</td>
<td>Incontinence eval</td>
</tr>
<tr>
<td>10. &quot;Over the past month, have you often been bothered by feeling sad, depressed or hopeless?&quot;</td>
<td>Yes</td>
<td>GDS or other depression assessment</td>
</tr>
<tr>
<td>&quot;During the past month, have you often been bothered by little interest or pleasure in doing things?&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Name three objects you ask in 5 minutes.</td>
<td>Usable</td>
<td>Folstein or other assessment</td>
</tr>
</tbody>
</table>

**12. Do you have any problems with any of the following areas?**

- a. Doing strenuous activities like fast walking, bicycling?
- b. Cooking?
- c. Shopping?
- d. Doing heavy housework like washing windows?
- e. Doing laundry?
- f. Getting to a place beyond walking distance by driving or taking a bus?
- g. Managing finances?
- h. Getting out of bed/transferring?
- i. Dressing?
- j. Toileting?
- k. Eating?
- l. Walking?
- m. Bathing (shower, bath, tub, or shower)?

*(For "yes" answers, consider causes, referral to social services and/or home eval/PT)*

- Other areas of concern: medication adherence and/or side effects, caregiver stress, elder abuse, pain, sexuality, alcohol, advance directives and health care wishes.

*Adapted from Lachs et al. (1990) and Moore & Sui (1996)*
### Strategies for Rapid Screen (1/3)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Rapid Screen</th>
</tr>
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<tbody>
<tr>
<td>Functional status</td>
<td>Answers “Yes” to one or more of the following: Because of a health or physical problem, do you need help to: a) shop? b) do light housework? c) walk across a room? d) take a bath or shower? e) manage the household finances?</td>
</tr>
</tbody>
</table>
## Strategies for Rapid Screen (2/3)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Rapid Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>“Timed Get Up and Go” test: unable to complete in less than 20 seconds</td>
</tr>
<tr>
<td>Nutrition</td>
<td>Answers “Yes” to “Have you lost more than 10 lb over the past 6 months without trying to do so?” OR body mass index (kg/m²) &lt; 20</td>
</tr>
<tr>
<td>Vision</td>
<td>If unable to read a newspaper headline and sentence while reading corrective lenses, test each eye with Snellen chart: unable to read greater than 20/40</td>
</tr>
</tbody>
</table>
| Domain            | Rapid Screen                                                                
<table>
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<th></th>
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<tbody>
<tr>
<td>Hearing</td>
<td>Unable to hear a 40-dB tone at 1000 or 2000 Hz in both ears or at either of these frequencies in one ear, as determined by use of a hand-held AudioScope</td>
</tr>
<tr>
<td>Cognitive function</td>
<td>3-item recall: unable to remember all 3 items after 1 minute</td>
</tr>
<tr>
<td>Depression</td>
<td>Answers “Yes” to “Do you often feel sad or depressed?”</td>
</tr>
</tbody>
</table>
Emphasis on function

- Medical conditions may present first or only as functional disturbances
- Functional losses
  - impacts quality of life
  - impact patient and caregiver
  - may lead to further disability and institutionalization
No element of the pre-operative examination of the older patient is more predictive of perioperative morbidity and mortality than functional ability!
Functional impairments increases with age!

The bar chart shows the percentage of individuals with difficulty in ADL and IADL problems across different age groups: 65-74, 70-74, 75-79, 80-84, and 85+. The x-axis represents the age groups, while the y-axis shows the percentage with difficulty.
Using functional information

- Use functional status as baseline
- Use it to guide recommendations for physical therapy and adaptive devices for impairments
- Consider home evaluation for highly impaired
- Useful for evaluating risk of & need for placement
Function assessment

- Did the patient complete the questionnaire on her own?
- Can the patient see and hear?
- How would you judge the patient’s affect?
- Does the patient look put-together?
- Observe the patient walk to the room or observe the patient get on the examination table
Activities of Daily Living (ADLs)
- Bathing, dressing, transferring, toileting, grooming, feeding, mobility

Instrumental Activities of Daily Living (IADLs)
- Using telephone, preparing meals, managing finances, taking medications, doing laundry, doing housework, shopping, managing transportation
Patient specific activities that can be used to detect subtle functional losses in high functioning patients
- Can be job- or recreation-oriented
- Examples include socializing, playing bridge or Mah Jong, working, playing golf, playing music, dancing, practicing law, flying a plane, gardening, quilting
Assess Mobility

- "Get Up and Go" test
  - Qualitative, timed
  - Assesses gait, balance, and transfers
Assess nutritional status

- Screen for malnutrition
  - Visual inspection
- Measure height, weight, BMI
  - BMI = weight (kg) / height (m²)
  - Watch for low BMI (<20 kg/m²)
  - Watch for unintended weight loss > 10 lb in 6 months
- Poor nutrition may reflect medical illness, depression, functional losses, financial hardship
Vision

- Cataracts, glaucoma, macular degeneration, and abnormalities of accommodation worsen with age
- Assess difficulties by asking about everyday tasks
  - Driving, watching TV, reading
- Use performance-based screening
  - Ask patient to read from newspaper, magazine
  - Use Snellen chart or Jaeger card
Common among older adults
- Impaired hearing → depression, social withdrawal
- Assess first for cerumen impaction
- Hearing loss usually bilateral and in high frequency range
- Use hand-held audioScope to test for abnormality
  - Loss of 40-dB tone at 1000 or 2000 Hz in one or both ears is abnormal
  - Refer for formal audiometry testing
Most people with dementia do not complain of memory loss.

Cognitively impaired older persons are at ↑ risk for accidents, delirium, medical non-adherence, and disability.

Prevalence of cognitive decline:
- Doubles every 5 years after age 65
- Nearly 50% of those aged 90+
Cognitive Assessments: Performance Measures

- Mini-COG: three word recall plus clock drawing
- SLUMS (Saint Louis University Mental Status Examination)
  - Tests orientation, registration, recall, attention, calculation, language, visual spatial skills
- EXIT 25: executive dysfunction
Assess Psychological Status

Although prevalence of major depression among older adults is low (1%-2%), "subclinical" depression is common

- Ask, “Do you often feel sad or depressed?”
- If patient responds affirmatively do further evaluation, eg, Geriatric Depression Scale
- Watch for signs of anxiety, bereavement
Social Assessment

- Ethnic, spiritual and cultural background
- Availability of a personal support system
- Caregiver burden
- Economic well-being
- Safety of the home environment
- Elder mistreatment
- Advance directives
Quality of Life

- Includes various aspects of physical, cognitive, psychological, and social function
- Short Form–36 Health Survey (SF–36): assesses physical function, role limitations due to physical and emotional health, bodily pain, social functioning, mental health, vitality, and general health perceptions
- Ask about patient preferences regarding medical care and goal of care
Although the number of crashes among older drivers is low . . .

- The number of crashes per mile driven and the likelihood of serious injury and death are higher than for any other age group except young adults 16 to 24 years old.
Risk Factors for Geriatric Drivers

- Poor visual acuity and contrast sensitivity
- Dementia (particularly visual-spatial skills and visual attention)
- Impaired neck and trunk rotation
- Limitations of shoulders, hips, ankles
- Foot abnormalities
- Poor motor coordination and speed of movement
- Medications and alcohol that affect alertness
Prevention is Key!

- **Assess risks**
  - Discuss safety concerns with the older driver and with spouse or family member, if possible
  - Urge consideration of other modes of transportation
  - Refer for formal driving evaluation

- **Encourage the driver to reduce risks**
  - Avoid rush hour, congested traffic
  - Avoid night driving
  - Avoid driving in poor weather
When Driving Cessation is Unavoidable

- Remember that driving cessation may result in:
  - Reduced activity level
  - Depressive symptoms

- Learn and follow individual state laws on reporting impaired drivers
The geriatric patient in urology

- Multiple medications and their interactions
- Illnesses which tend to be more acute than in younger adults
- Aging-related physiological changes (e.g. bladder-muscle degeneration, hearing loss, impaired vision, changes in nightly sleep patterns)
- Impaired physical mobility
- Impaired cognitive abilities
- Consider living situation
- Consider support system
The focus of geriatric assessment is on function.

Successful assessment promotes wellness and independence.

Strategies that enhance communication with older patients should be used.

Comprehensive assessment includes physical, cognitive, psychologic, and social aspects of health.
Questions?
Mrs. Jones is an 84 year old woman brought in by her daughter for evaluation.
Mrs. Jones

- Mrs. Jones has hypertension, osteoarthritis, insomnia
- Her medications are
  - HCTZ
  - indomethacin
  - zolpidem
- She lives alone and calls her daughter when she needs help
- She can afford to pay for medications
HPI

- Per Mrs. Jones, no issues with hearing (her daughter disagrees)
- Denies depression or memory problems
- Used a single point cane to ambulate and has fallen 2x in the past year
- Has knee pain
HPI (con’t)

- Proficient in her ADLs but needs assistance with IADLs
  - Shopping
  - Housekeeping
  - Managing finances
- Up to date on her vaccinations
- Has advance medical directives
Mrs. Jones completed the questionnaire on her own.
She often asks you to repeat what you are saying to her.
She uses a cane but appears steady.
She looks neat and well-groomed.
She does not appear to be depressed.
Directed Medical History

- Review questionnaire
- Balance reason for visit with need to target identified problems
- May follow-up identified problems with screening/diagnostic tests
Focus

- Medication use
- Reasons for limitations in IADLs
- Possible hearing loss
- Gait and balance
Medications

- Ask about her use of indomethacin and zolpidem
- Indomethacin with multiple adverse side effects
  - Gastrointestinal
  - Kidneys
- CBT superior to any medication for insomnia
- Substitute acetaminophen for indomethacin
Mrs. Jones reports that she doesn’t do shopping and housekeeping because she has difficulty walking/standing for long periods of time.

She doesn’t manage her finances as her husband has always done that and now her daughter has taken it over.
Physical Examination

- Should be directed!
- Guided by history/observation
Mrs. Jones fails the hearing loss screening
You refer her to audiology for formal testing
Mrs. Jones has some difficulties getting up from a chair. She has no obvious problems with immediate standing balance. Her stride length is short and her pivot consists of multiple steps. She is obviously in pain.
Mobility (con’t)

- Multifactorial etiology for her falls and impaired mobility
- Includes knee pain, quadriceps and hamstrings weakness, possibly vitamin D deficiency
- You review her pain medications, prescribe physical therapy, check vitamin D level
Establish Agreement on Plan of Action

- Review reasons for visit/findings
- Prioritize next steps
- Give out handwritten or pre-printed information and instructions
- Make follow-up visit to review/reassess plan
- Make referrals as necessary
An 85-year-old black man comes to the office because he wants to get a new pair of eyeglasses.

He lives alone in a town 65 miles away and is accompanied by his nephew.

He walks slowly with a cane, which he bumps into the wall several times.

He pauses at the doorway of the examining room and waits for his nephew to assist him into the chair.

He has not seen a doctor since his wife died 5 yr ago.
The patient is withdrawn and answers questions curtly.

He says he has “mild diabetes and arthritis in his hands,” and takes no medications.

The nephew is worried about his uncle’s living conditions and describes his home as filthy. The nephew had hired a housekeeper, but the uncle kicked her out because she moved the chairs in his room.

According to the nephew, the patient refuses to leave the house and spends all his time in one room.

At this point, the patient states that he is ready to return home.
Which of the following is the most appropriate next step?

(A) Depression screen
(B) Vision assessment
(C) Cognitive assessment
(D) Comprehensive assessment
Which of the following is the most appropriate next step?
(A) Depression screen
(B) Vision assessment
(C) Cognitive assessment
(D) Comprehensive assessment
A 78 year old asymptomatic man comes for an initial routine office visit. Medical history is significant for hypertension and hyperlipidemia. Current medications are atenolol, hydrochlorothiazide, and simvastatin. The patient has never smoked. His wife recently had a stroke and the couple just moved from their home of many years to live at an assisted living facility. The results of a routine screening examination and laboratory tests are normal.
Which of the following screening tests should be done next?

- A. Abdominal ultrasonography
- B. Ankle-brachial index
- C. Depression screening
- D. Mini-mental state Examination
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- B. Ankle-brachial index
- C. Depression screening
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A 75 year old man treated with a fentanyl patch for chronic pain due to spinal stenosis seeks advice regarding the use of alternative therapies to help with pain relief. He does not want surgery but does not feel he has been getting sufficient pain relief with the fentanyl and did not like the sedation that was associated with oral narcotics in the past.
His medical history is significant for atrial fibrillation, hypertension, hyperlipidemia, and type 2 diabetes. Current medications are warfarin, hydrochlorothiazide, and metformin. He denies anhedonia or feeling down, depressed, or hopeless. On examination there is no tenderness over the spine or paraspinous muscles. No tightness or spasm of the paraspinous muscles is detected.
Question 3 (con’t)

Which of the following is the best management option for this patient?

- A. Gingko
- B. Graduated exercise program
- C. Local application of ice
- D. St. John’s wort
- E. Traction
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QUESTIONS???