Geriatric Assessment Tools: Utility in Primary Care Practices

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Professor of Medicine
UNTHSC/TCOM - Fort Worth
• Disclosures
  – I am a “Baby Boomer” (one of 78 million)
  – I love old people, old movies and antiques
  – I don’t see anyone in my practice less than 65 years of age
  – My favorite group are the “super seniors”
  – My goal is to go from being a “DINK” to a “WOOF”
  – I believe every day above ground is a great day!
  – I believe “Geriatrics” is the field of the future !!!!!
• Objectives

  – Review the demographics of the aging population, “Aging Tsunami”
  – Review Geriatric Assessment Tools
  – Discuss the application of Geriatric Assessment Tools
  – Assess Primary Care Physicians utilization of Geriatric Assessment Tools
• Tsunami
  – A series of waves created when a body of water, such as an ocean, is rapidly displaced
  – The effects of a Tsunami can be devastating due to the immense volumes of water and energy involved.
  – Cannot be prevented or precisely predicted, but there are some warning signs
  – “A wave of terror”

Wikipedia
http://www.youtube.com/watch?v=AIPqL7IUT6M
Number of people age 65 and over, by age group, selected years 1900–2006 and projected 2010–2050

Note: Data for 2010–2050 are projections of the population. Reference population: These data refer to the resident population. Source: U.S. Census Bureau, Decennial Census, Population Estimates and Projections.
Population age 65 and over, by race and Hispanic origin, 2006 and projected 2050

Note: The term “non-Hispanic white alone” is used to refer to people who reported being white and no other race and who are not Hispanic. The term “black alone” is used to refer to people who reported being black or African American and no other race, and the term “Asian alone” is used to refer to people who reported only Asian as their race. The use of single-race populations in this report does not imply that this is the preferred method of presenting or analyzing data. The U.S. Census Bureau uses a variety of approaches. The race group “All other races alone or in combination” includes American Indian and Alaska Native, alone; Native Hawaiian and Other Pacific Islander, alone; and all people who reported two or more races.

Reference population: These data refer to the resident population.
• Implications of the Future Demographics
  — More than 6,000 Americans celebrate their 65th birthday each day
  — Every one hour, 330 people turn 60
  — On January 1, 2011, as the baby boomers begin to celebrate their 65th birthdays, 10,000 people will turn 65 every day—this will continue for 20 years.

Alliance for Aging Research
• Centenarian Growth – USA

1900  Rare
1982  32,000
1995  61,000
2007  80,000
2040  450,000
2050  over 700,000

***Only 30% of Centenarians today live Independently***

US Census, 2002
Upper, Middle and Lower Quartiles of Life Expectancy for Women at Selected Ages - JAMA, June 6, 2001:285(21)
Upper, Middle and Lower Quartiles of Life Expectancy for Men at Selected Ages - JAMA, June 6, 2001:285(21)
• Implications for the Future–Health Status
  – Impacts approximately 5.2 million Americans
  – Every 71 seconds someone in USA develops AD
  – Estimated 14.3 million persons will have AD by 2050
  – Cost of caring for persons with AD exceeds $50 billion annually
  – Greatest risk factor is age

2008 Alzheimer’s Disease Facts and Figures
Demographics of AD Today!

- **USA:**
  - 2008 – 5.2 Million
  - 2050 – 16 Million

- **EU:**
  - 2008 – 7-8 Million
  - 2050 – 14 Million

- **Texas:**
  - 2006 – 280,000
  - 2025 – 470,000

Alzheimer’s Association, 2009 Facts & Figures
PREVALENCE OF ALZHEIMER’S DISEASE
(BY DECADES IN U.S.A. FROM 1900-2050)
• Consumption of Health Care Resources by Older Adults:
  – 26% physician office visits
  – 32% of physician total patient care hours
  – 35% hospital stays
  – 34% prescriptions
  – 38% emergency medical services
  – 90% nursing facility use

IOM Report, 2008
Geriatric Supportive Services

In the US, over 3 million people use long-term care
- 16,995 Nursing Homes house 1.5 million residents
- 36,000 Assisted Living centers house 910,000 residents
- 2,100 Continuing care Retirement Communities (CCRC) house 660,000
- 3,500 Adult Day Programs serve 150,000 persons

AHCA, 2007
• Epidemic of Chronic Disease
  – Leading cause of death
  – Increased risk of major depression
  – Non-adherence to treatment regimens
  – Functional Impairments
  – Cognitive Impairments
  – Increased utilization of health care resources
  – Increased demand for long term care services

IOM Report, 2008
Give it to me straight doc. How many more "golden years" would you say I have staring me in the face?
• **Current Physician Workforce**
  – Geriatricians
  – 7,128 CAQ in Geriatrics Physicians
  – 1 Geriatrician per 2,546 older Americans

• **Projected Physician Workforce**
  – Geriatricians (2030)
  – 7,750 CAQ in Geriatrics Physicians
  – 1 Geriatrician per 4,250 older Americans

• **Projected Geriatrician Need**: 26,000 by 2030

• **BOTTOM LINE:**
  “All physicians will need to practice geriatrics!”

ADGAP, 2007b: Alliance for Aging Research, 2002
• Priority Subsets for Geriatricians’ Care
  – Aged ≥ 85
  – Complex biomedical & psychosocial
  – Geriatric Syndromes
  – Fraility
  – Palliative or end-of-life care
  – Posthospital placement
  – Nursing home care

*Geriatricians are Complexivists*

JAGS, Oct 2008
What Percent of your Practice are Patients over age 65?

1. < 10%
2. 11-25%
3. 26-50%
4. 51-75%
5. Over 76%
6. NONE because I will NOT take Medicare !!!!!!!
What Percent of your Practice are Patients over age 85?

1. < 10%
2. 11-25%
3. 26-50%
4. 51-75%
5. Over 76%
6. NONE because that age is older than DIRT!!!!!
Geriatric Assessment Domains

- Social
- Functional
- Geriatric Syndromes
- Cognition and Affect

www/medicine.emory.edu/ger/edu_resources
<table>
<thead>
<tr>
<th>GERIATRIC ASSESSMENT DOMAINS - SOCIAL</th>
<th>Recommended Screens</th>
<th>Further Assessment for + Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL SUPPORT</td>
<td>Do you live alone?</td>
<td>Consider referral to Social Worker. Refer to AAA</td>
</tr>
<tr>
<td></td>
<td>Do you have a caregiver?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are you a caregiver?</td>
<td></td>
</tr>
<tr>
<td>ELDER NEGLECT/ABUSE</td>
<td>Do you ever feel unsafe where you live?</td>
<td>Social Work assessment Consider APS Referral</td>
</tr>
<tr>
<td></td>
<td>Has anyone ever threatened or hurt you?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has anyone been taking your money without your permission?</td>
<td></td>
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<tr>
<td>ADVANCE DIRECTIVES</td>
<td>Would you like information or forms for a medical power of attorney? Would you like information on a Directive to Physicians/Living Will/OOH?</td>
<td>Provide Forms Discuss Advanced Care Planning</td>
</tr>
</tbody>
</table>

[www.dshs.state.tx.us/emstraumasystems/dnr.shtm](http://www.dshs.state.tx.us/emstraumasystems/dnr.shtm)
How do you handle Advanced Care Planning for your geriatric patients?

1. I leave this to the hospital social workers.
2. I only discuss Advanced Care Planning if the patient or caregiver brings it up
3. I target my discussions about Advanced Care Planning based on the geriatric patient’s co-morbid illnesses
4. I discuss Advanced Care Planning during every annual exam for my geriatric patients
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<tr>
<th>FUNCTIONAL</th>
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| **FUNCTIONAL STATUS** | Do you need assistance with shopping or finances?  
Do you need assistance with bathing or taking a shower? | Instrumental ADL Scale  
Basic ADL Scale |
| **DRIVING** | Do you still drive?  
IF YES:  
While driving, have you had an accident in the past 6 mths/  
Driving concerns by family member? | Vision testing  
Consider OT Eval  
Cognitive testing |
Instrumental Activities of Daily Living (IADLs)

Ability to use telephone
Shopping
Food Preparation
Housekeeping
Laundry
Mode of transportation
Responsibility for own medications
Ability to handle finances

IADL Score: ___/8

Lawnton MP, JAGS 1971; Gerontologist 1969
Basic Activities of Daily Living (ADLs)
Physical Self-Maintenance Scale
Bathing
Dressing
Toileting
Transfers
Continence
Feeding

ADL Score:__/6

Lowenthal MF, 1964
Katz, JAMA, 185:914, 1963
When do you perform a functional assessment on geriatric patients in your practice?

1. I never perform ADL or IADL assessment
2. I target this assessment for those over 75 years of age
3. I target this assessment for those with cognitive impairment
4. I perform ADL and IADL assessment on all new patients over 65 years of age
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<td>DRIVING</td>
<td>Do you still drive? IF YES: While driving, have you had an accident in the past 6 mths/Driving concerns by family member?</td>
<td>Vision testing, Consider OT Eval, Cognitive testing</td>
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With the increase in the number of older drivers projected, who should evaluate driving capability?

1. DPS
2. Primary Care Physicians
3. Ophtamologists
4. Occupational therapists
5. Car dealerships
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<tr>
<td><strong>VISION</strong></td>
<td>Do you have trouble seeing, reading, or watching TV? (with glasses, if used)</td>
<td>Vision Testing – Snellen Chart Consider referral to optometry or ophthalmology</td>
</tr>
<tr>
<td><strong>HEARING</strong></td>
<td>Do you have difficulty hearing conversation in a quiet room? Unable to hear whisper test 6-12 inches away?</td>
<td>Cerumen check and removal if impacted Consider Audiology referral</td>
</tr>
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Vision in Older Adults

• Visual Impairment – VA <20/40 occurs 20-30% in aged 75 +
• Blindness – VA >20/200 occurs in 2% in aged 75+
• Those 65+ make up 50% of blind population
• Recommendations:
  – Snellen Chart
  – American Academy of Ophthalmology – 1-2 years
  – USPSTF – annual vision testing
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<td>Do you have difficulty hearing conversation in a quiet room? Unable to hear whisper test 6-12 inches away?</td>
<td>Cerumen check and removal if impacted Audioscope Consider Audiology referral</td>
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Hearing Loss – 4th most common chronic Dz in older adults
- 10% age 65-75 yrs of age
- 25% over 75 yrs of age

Hearing Handicap Inventory for the Elderly (HHIE) Screening Version
- Score LR
  - 0-8 0.36 (0.19-0.68)
  - 10-24 2.30 (1.22-4.32)
  - 26-40 12.00 (2.62-55.0)

Hearing Handicap Inventory for the Elderly (HHIE)

1. Does a hearing problem cause you to feel embarrassed when you meet new people?
2. Does a hearing problem cause you to feel frustrated when talking to members of your family?
3. Do you have difficulty hearing when someone speaks in a whisper?
4. Do you feel handicapped by a hearing problem?
5. Does a hearing problem cause you difficulty when visiting friends, relatives, or neighbors?
6. Does a hearing problem cause you to attend religious services less often than you would like?
7. Does a hearing problem cause you to have arguments with family members?
8. Does a hearing problem cause you difficulty when listening to TV or radio?
9. Do you feel that any difficulty with your hearing limits or hampers your personal or social life?
10. Does a hearing problem cause you difficulty when in a restaurant with relatives or friends?

(4 points for each positive answer) Lichtenstein MF, et al. JAMA, 1988
## HI Screening Tests: Sensitivity and Specificity

<table>
<thead>
<tr>
<th>Test</th>
<th>Sensitivity(%)</th>
<th>Specificity(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audioscope</td>
<td>94</td>
<td>72</td>
</tr>
<tr>
<td>HHIE-S Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; 8</td>
<td>72</td>
<td>77</td>
</tr>
<tr>
<td>&gt; 24</td>
<td>41</td>
<td>92</td>
</tr>
<tr>
<td>Combined</td>
<td>75</td>
<td>86</td>
</tr>
<tr>
<td>Whisper Test</td>
<td>100</td>
<td>84</td>
</tr>
</tbody>
</table>

AgeAging, 1988; 17(5), 347-351  
Lichtenstein, JAMA, 1988; 259(19): 2875-2878
Which of the following do you routinely do in your practice for adults over 65?

1. Vision Screening annually
2. Hearing Screening annually
3. Both Vision and Hearing Screening annually
4. Neither Vision of Hearing Screening annually
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<td><strong>MEDICATIONS</strong></td>
<td>Are you prescribed &gt;5 routine medications? Do you have difficulty understanding the reason for each of your medications?</td>
<td>Match meds with Dx in problem list. Consider decreasing doses or D/Cing drugs. Review Beer’s List</td>
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<td><strong>FALL RISK</strong></td>
<td>Have you fallen in the past year? Are you afraid of falling? Do you have trouble climbing stairs or rising from chairs?</td>
<td>“Get Up and Go” Test. Consider full Fall Assessment. Consider PT Eval. Consider Home Safety Assessment</td>
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POTENTIALLY INAPPROPRIATE MEDICATIONS FOR OLDER PERSONS

• High Potential for Severe ADRs
  – Indomethacin (Indocin)
  – Pentazocine (Talwin)
  – Trimethobenzamide (Tigan)
  – Muscle relaxants/Antispasmodics
  – Flurazepam (Dalmane)
  – Amitriptyline (Elavil)
  – Chlordiazepoxide-Amitriptyline (Limbitrol)
  – Perphenazine-Amitriptyline (Triavil)
  – Doxepin (Sinequan)
  – Meprobamate (Miltown/Equanil)
  – Disopyramide (Norpace)
  – Methyldopa (Aldomet)/ methylDaopa-HCTZ (Aldoril)
  – Chlorpropamide (Diabinese)
  – Diphenhydramine (Benadryl)

Beers, ARCH INT MED 2003
POTENTIALLY INAPPROPRIATE MEDICATIONS FOR OLDER PERSONS

• High Potential for Severe ADRs
  – Short–acting Benzodiazepines doses:
    • Lorazepam (Ativan) > 3 mg
    • Oxazepam (Serax) > 60 mg
    • Alprazolam (Xanax) > 2 mg
    • Temazepam (Restoril) > 15 mg
    • Triazolam (Halcion) > 0.25 mg
  – Long–acting Benzodiazepines:
    • Chlordiazepoxide (Librium)
    • Chlordiazepoxide-amitriptyline (Limbritol)
    • Clidinium-chlordiazepoxide (Librax)
    • Diazepam (Valium)
    • Quazepam (Doral)
    • Halazepam (Paxipam)
    • Chlorazepate (Tranxene)

Beers, ARCH INT MED 2003
POTENTIALLY INAPPROPRIATE MEDICATIONS FOR OLDER PERSONS

• High Potential for Severe ADRs
  – Gastrointestinal antispasmodic drugs:
    • Dicyclomine (Bentyl)
    • Hyoscyamine (Levsin/Levsinex)
    • Propantheline (Pro-Banthine)
    • Belladonna alkaloids (Donnatal)
    • Clidinium-chlordiazepoxide (Librax)
  – Anticholinergics and antihistamines:
    • Chlorpheniramine (Chlor-Trimeton)
    • Diphenhydramine (Benadryl)
    • Hydroxyzine (Vistaril / Atarax)
    • Cyproheptadine (Periactin)
    • Promethazine (Phenergan)
    • Tripelennamine/Dexchlorpheniramine (Polaramine)
  – All barbituates (except phenobarbital) except when to control seizures

Beers, ARCH INT MED 2003
POTENTIALLY INAPPROPRIATE MEDICATIONS FOR OLDER PERSONS

• High Potential for Less Severe ADEs

- Propoxyphene (Darvon/Darvocet)
- Digoxin (Lanoxin) > 0.125 mg
- Short-acting dipyridamole (Persantine)
- Reserpine > 0.25 mg
- Ergot mesyloids (hydergine)
- Cyclandelate (Cyclospasmol)
- Ferrous sulfate > 325 mg

Beers, ARCH INT MED 2003
Inappropriate Prescribing in the Elderly

• 1997-2001 Medline: Beers criteria – 11 Studies

  – Prevalence of 21.3% community dwelling elders using at least 1 inappropriately prescribed drug (40% NH)
  – Propoxyphene, Amitriptyline, Long acting benzo’s (Chlordiazepoxide, diazepam, flurazepam) & dipyridamole
  – Patient related Predictors: polypharmacy, poor health status, female

Regarding the Beers Criteria of Inappropriate Prescribing, which of the following is TRUE for you?

1. I never heard of these criteria
2. I have heard of the criteria but don’t follow the recommendations
3. I have heard of the criteria and follow some of the recommendations
4. I embrace all of the recommendations in my geriatric patient care
5. I think these recommendations are crap!
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<td>Have you fallen in the past year? Are you afraid of falling? Do you have trouble climbing stairs or rising from chairs?</td>
<td>“Get Up and Go” Test (Timed/Untimed) Functional Reach Tandem/Semi-tandem Consider full Fall Assessment Consider PT Eval/Home Safety Assessment</td>
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Timed “Up and Go” Test

*Instructions:*

- Rise from the chair
- Walk 10 feet (or 3 meters) forward
- Turn around
- Walk back to the chair
- And sit down

*Normal time to complete test = 7-10 secs.*

*Observe gait and balance during test*

*Over 10 sec may have risk for falls*

Podsiadlo & Richardson, JAGS 39:142m 1991
“Get Up and Go” Test (Untimed)

**Instructions:**
1. Sit in straight-backed chair
2. Rise from chair
3. Stand still momentarily
4. Walk a short distance (~ 3 meters)
5. Turn around
6. Sit down in chair

**Scoring:**
1 = Normal
2 = Very slightly abnormal
3 = Mildly abnormal
4 = Moderately abnormal
5 = Severely abnormal

Score ≥ 3 is at risk of falling

Functional Reach

Testing:
1. Leveled yardstick secured to a wall at height of acromion.
2. Person tested assumes comfortable stance without shoes or socks.
3. Patient’s shoulders are perpendicular to yardstick.
4. Patient makes a fist and extends arm forward as far as possible along the wall (Cannot take any steps!)

TOTAL REACH – measured along yardstick and recorded.

**Inability to reach 6 inches or more**

JAGS 2001;49(5):664-672
Of all of the Functional Assessment Tools discussed today, which will you probably institute in your practice for older adults

1. The recommended screening questions
2. ADL and IADL assessment
3. Timed and/or Untimed Up and Go
4. Functional Reach
5. Tandem/Semi-tandem test
6. More than one of the above
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<td>CONTINENCE</td>
<td>Do you have any trouble with your bladder? Do you lose urine or stool when you do not want to? Do you wear pads or adult diapers?</td>
<td>Consider full Continence Assessment AUA 7 symptom inventory (men) OAB-V8</td>
</tr>
<tr>
<td>WEIGHT LOSS</td>
<td>Weight ≤100 lbs., or Unintentional weight loss ≥ 10 lbs over 6 mths ?</td>
<td>Simplified Nutritional Appetite Questionnaire (SNAQ) Consider Nutrition Eval</td>
</tr>
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</table>
American Urological Association (AUA) Symptom Index

1. Over the past month, how often have you had the feeling of not completely emptying your bladder after you finished urinating?
2. Over the past month, how often have you had to urinate again less than 2 hours after you finished urination?
3. Over the past month, how often have you found that you stopped and started again several times when you urinated?
4. Over the past month, how often have you found it hard to hold your urine?
5. Over the past month, how often have you had a weak urinary stream?
6. Over the past month, how often have you had to push or strain to begin urination?
7. Over the past month, have you had to get up to urinate during the night? Give a score the # of times.
American Urological Association (AUA) Symptom Index

Point Scale: Questions 1-6

0= Never
1= Less than 1 in 5 times
2= Less than half of the time
3= About half of the time
4= More than half of the time
5= Almost always

Point Scale: Question 7

0= Did not get up at all
1= Got up 1 time
2= Got up 2 times
3= Got up 3 times
4= Got up 4 times
5= Got up 5 times or more

Severity Score

0-7  Mild Severity
8-19 Moderate Severity
20-35 Severe Severity

http://cpsc.acponline.org/enhancements/238BPHSymptomCalc.html
OAB-V8
(Overactive Bladder-Validated 8 Question Awareness Tool)

How bothered have you been by….

1. Frequent urination during the daytime hours?
2. An uncomfortable urge to urinate?
3. A sudden urge to urinate with little or no warning?
4. Accidental loss of small amounts of urine?
5. Nighttime urination?
6. Waking up at night because you had to urinate?
7. An uncontrollable urge to urinate?
8. Urine loss associated with a strong desire to urinate?

Response Choices/Points:
Not at all=0, A little bit=1, Somewhat=2, Quite a bit=3, A great deal=4, A very great deal=5

Add 2 points if male. **Score ≥ 8 may have OAB**  

Coyne KS et al, Adv Ther 2005
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<td>DETERMINE YOUR NUTRITIONAL HEALTH</td>
<td>YES</td>
<td></td>
</tr>
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<td>-----------------------------------</td>
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<td></td>
</tr>
<tr>
<td>I have an illness or condition that made me change the kind and/or amount of food I eat</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I eat fewer than 2 meals per day</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>I eat few fruits or vegetables or milk products</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have 3 or more drinks of beer, liquor or wine almost every day.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I have tooth or mouth problems that make it hard for me to eat</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I don’t always have enough money to buy the food I need</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>I eat alone most of the time</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>I take 3 or more different prescribed or over the counter drugs a day</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Without wanting to, I have lost or gained 10 pounds in the last 6 months</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>I am not always physically able to shop, cook and/or feed myself</td>
<td>2</td>
<td></td>
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</tbody>
</table>

www.eatright.org/ada/files/Checklist.pdf

TOTAL
SNAQ –
Simplified Nutritional Assessment Questionnaire

My appetite is
a. Very poor, b. Poor, C. Average, D. Good, E. Very Good

When I eat
a. I feel full after eating only a few mouthfuls
b. I feel full after eating about a third of a meal
c. I feel full after eating over half a meal
d. I feel full after eating most of the meal
e. I hardly ever feel full

Food tastes

Normally I eat
a. Less than 1 meal/day, b. 1 meal daily, c. 2 meals daily, d. 3 meals daily, e. more than 3 meals daily

Protocol for Evaluating Risk of Malnutrition in the Elderly

SCALES

S adness: GDS 10-14 = 1 point
   GDS ≥ 15 = 2 points

C holesterol: < 160 mg/dl = 1 point

A lbumin: 3.5mg/dl = 1 point
   < 3.5 mg/dl = 2 points

L oss of weight: 1 kg/1 mth = 1 point
   3 kg/6 mths = 2 points

E at: Does person need assistance: Yes=1 point

S hopping: Does person need assistance? Yes= 1 point

Scoring: ≥ 3 points indicates patient is at risk

How many geriatric patients do you refer monthly for a dietician assessment?

1. ≤ 1
2. 2-5
3. 6-10
4. 11-20
5. > 20
<table>
<thead>
<tr>
<th>GERIATRIC ASSESSMENT DOMAIN – GERIATRIC SYNDROMES</th>
<th>Recommended Screens</th>
<th>Further Assessment for + Screen</th>
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<tr>
<td><strong>SLEEP</strong></td>
<td>Do you often feel sleepy during the day? Do you have difficulty falling asleep at night?</td>
<td>Epworth Sleepiness Scale Consider referral for sleep eval</td>
</tr>
<tr>
<td><strong>PAIN</strong></td>
<td>Are you experiencing pain or discomfort?</td>
<td>Pain Assessment: VAS Pain Thermometer Faces PAIN-AD</td>
</tr>
<tr>
<td><strong>ALCOHOL ABUSE</strong></td>
<td>Do you drink &gt;2 drinks /day?</td>
<td>CAGE Questionnaire</td>
</tr>
</tbody>
</table>
EPWORTH SLEEPINESS QUESTIONNAIRE

**Situation:**
- Sitting and Reading
- Watching TV
- Sitting inactive in a public place
- As a passenger in a car for an hour
- Lying down to rest in the afternoon
- Sitting and talking to someone
- Sitting quietly after lunch without alcohol
- In a care while stopped for a few minutes

**Scoring:**
- 0= would never doze
- 1= slight chance of dozing
- 2= moderate chance of dozing
- 3= high chance of dozing

“How likely are you to doze off or to fall asleep in the following situations, in contrast to just feeling tired? This refers to your usual way of life in recent times.”

Johns MW. Sleep. 17(8): 703-10, 1994
<table>
<thead>
<tr>
<th>GERIATRIC ASSESSMENT DOMAIN – GERIATRIC SYNDROMES</th>
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</tr>
<tr>
<td>ALCOHOL ABUSE</td>
<td>Do you drink &gt;2 drinks /day?</td>
<td>CAGE Questionnaire</td>
</tr>
</tbody>
</table>
Choose a number from 0 to 10 that best describes your pain.

Escoga un numero de 0 a 10 que major describa su dolor
Pain Scale
Visual Tool

10  Worst possible pain
9    Very severe pain
8    Severe pain
7    Moderate pain
6    Mild pain
5    No pain
<table>
<thead>
<tr>
<th>PAINAD</th>
<th>BEHAVIOR</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing</td>
<td>Normal</td>
<td>• Occasional labored breathing</td>
<td>• Noisy labored breathing</td>
<td>• Repeated troubled calling out</td>
<td></td>
</tr>
<tr>
<td>Independent of vocalization</td>
<td></td>
<td>• Short period of hyperventilation</td>
<td>• Long period of hyperventilation</td>
<td>• Loud moaning or groaning</td>
<td></td>
</tr>
<tr>
<td>Negative vocalization</td>
<td>None</td>
<td>• Occasional moan or groan</td>
<td>• Repeated troubled calling out</td>
<td>• Crying</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low-level speech with negative or disapproving quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial expression</td>
<td>Smiling or inexpressive</td>
<td>• Sad</td>
<td>• Facial grimacing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frightened</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body language</td>
<td>Relaxed</td>
<td>• Tense</td>
<td>• Rigid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Distressed pacing</td>
<td>• Fists clenched</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fidgeting</td>
<td>• Knees pulled up</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Pulling or pushing away</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Striking out</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AGS Panel on Persistent pain in Older Adults

- Common Pain Behaviors in Cognitively Impaired Older Adults
  - Facial Expressions
  - Verbalizations/Vocalizations
  - Body Movements (Fidgeting/↑Restlessness)
  - Changes in Interpersonal Interactions
  - Changes in Activity Patterns or Routines
  - Changes in Gait or Behavior
  - Mental Status Changes
**NOPPAIN**
(Non-Communicative Resident’s Pain Assessment Instrument)

**DIRECTIONS:** CNA should complete at least 5 minutes of daily care activities for the Resident while observing for pain behaviors. This form should be completed immediately following care activities.

<table>
<thead>
<tr>
<th>Did you do this?</th>
<th>Did you see pain when you did this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ YES</td>
<td>☐ YES</td>
</tr>
<tr>
<td>☐ NO</td>
<td>☐ NO</td>
</tr>
</tbody>
</table>

(a) Put Resident in bed OR saw Resident lying down

(b) Turned Resident in bed

(c) Transferred Resident (bed to chair, chair to bed, standing or wheelchair to toilet)

(d) Sat Resident up (bed or chair) OR saw Resident sitting

(e) Dressed Resident

(f) Fed Resident

(g) Helped Resident stand OR saw Resident stand

(h) Helped Resident walk OR saw Resident walk

(i) Bathed Resident OR gave Resident sponge bath

**Pain Response/Responsibility (What did you see and hear?)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>“That hurts!”</td>
<td>“Grimace”</td>
<td>“Hold”</td>
<td>“Massaged affected area”</td>
<td>“Frequent shifting”</td>
</tr>
<tr>
<td>“Check!”</td>
<td>“Wrinkled brow”</td>
<td>“Guarding”</td>
<td>“Mimicking affected area”</td>
<td>“Inability to stay still”</td>
</tr>
<tr>
<td>“Stop that!”</td>
<td>“Cry”</td>
<td>“Groan”</td>
<td>“Crying”</td>
<td>“Screaming”</td>
</tr>
</tbody>
</table>

- **Pain Words?**
  - Yes/No
  - How intense were the pain words?

- **Pain Faces?**
  - Yes/No
  - How intense were the pain faces?

- **Bracing?**
  - Yes/No
  - How intense was the bracing?

- **Rubbing?**
  - Yes/No
  - How intense was the rubbing?

- **Restlessness?**
  - Yes/No
  - How intense was the restlessness?

**Locate Problem Areas**

Please "X" the site of any pain
Please "O" the site of any skin problem

**FRONT**

**BACK**

**REMEMBER:** Make sure to ASK THE RESIDENT if he/she is in pain!
The Non-Communicative Patient’s Assessment Instrument (NOPPAIN)

- Nursing Assistant administered instrument for assessing pain behaviors in patients with dementia.
- This tool focuses on observation of specific pain behaviors while doing common care tasks.
- Pain is assessed at rest and with movement.
- The tool has four main sections:
  1. Care conditions under which pain behaviors are observed such as bathing, dressing, transfers.
  2. Six items about presence/absence of pain behaviors (pain words, pain noises, pain faces, bracing, rubbing and restlessness).
  3. Pain behavior intensity ratings using a six point Likert scale.
  4. A pain thermometer for rating overall pain intensity.
Which of the following tools to assess pain are you using most of the time?

1. Visual Analogue Scale (VAS)
2. Verbal pain level assessed 0-10
3. Faces
4. Thermometer
5. No formal scale, asking the patient about their pain.
<table>
<thead>
<tr>
<th>GERIATRIC ASSESSMENT DOMAIN – GERIATRIC SYNDROMES</th>
<th>Recommended Screens</th>
<th>Further Assessment for + Screen</th>
</tr>
</thead>
</table>
| SLEEP                                            | Do you often feel sleepy during the day?  
Do you have difficulty falling asleep at night? | Epworth Sleepiness Scale  
Consider referral for sleep eval |
| PAIN                                             | Are you experiencing pain or discomfort? | Pain Assessment:  
VAS  
Pain Thermometer  
Faces  
PAIN-AD |
| ALCOHOL ABUSE                                    | Do you drink >2 drinks/day?              | CAGE Questionnaire |
### CAGE QUESTIONNAIRE FOR ALCOHOLISM

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever felt the need to cut down on your drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever felt annoyed by criticism of your drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever felt guilty about your drinking?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever take a morning drink (eye-opener)?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Two affirmative answers may be suggestive of alcoholism**

Ewing, JAMA 252:1905-1907, 1984
<table>
<thead>
<tr>
<th>GERIATRIC ASSESSMENT DOMAIN – COGNITION &amp; AFFECT</th>
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<th>Further Assessment for + Screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPRESSION</td>
<td></td>
<td>Geriatric Depression Scale</td>
</tr>
<tr>
<td>Do you often feel sad or depressed? Have you lost pleasure in doing things over the past few months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGNITION</td>
<td>Self reported memory loss? Cognitive screen Positive? (Mini-Cog)</td>
<td>MMSE MOCA ACOVE Questions Consider Neuropsychological Testing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## GERIATRIC DEPRESSION SCALE (SHORT FORM)

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you basically satisfied with your life?</td>
<td>Yes/NO</td>
</tr>
<tr>
<td>Have you dropped many of your activities and interests?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you feel that your life is empty?</td>
<td>YES/ NO</td>
</tr>
<tr>
<td>Do you often get bored?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Are you in good spirits most of the time?</td>
<td>Yes/NO</td>
</tr>
<tr>
<td>Are you afraid that something bad is going to happen to you?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you feel happy most of the time?</td>
<td>Yes/NO</td>
</tr>
<tr>
<td>Do you often feel helpless?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you prefer to stay at home, rather than going out and doing new things?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you feel you have more problems with memory than most people?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you think it is wonderful to be alive?</td>
<td>Yes/NO</td>
</tr>
<tr>
<td>Do you feel pretty worthless the way you are now?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you feel full of energy?</td>
<td>Yes/NO</td>
</tr>
<tr>
<td>Do you feel that your situation is hopeless?</td>
<td>YES/No</td>
</tr>
<tr>
<td>Do you think that most people are better off than you are?</td>
<td>YES/No</td>
</tr>
<tr>
<td><strong>Total Score</strong> (bolded)</td>
<td></td>
</tr>
<tr>
<td>GERIATRIC ASSESSMENT DOMAIN – COGNITION &amp; AFFECT</td>
<td>Recommended Screens</td>
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<td>Self reported memory loss? Cognitive screen Positive ? (Mini-Cog)</td>
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Rapid Screen for Cognitive Impairment: Mini-Cog

- Rapid screen for cognitive impairment
  - In a study, it took about 5 minutes to administer
    1) 3-word registration
    2) Simple clock drawing test
    3) 3-word recall
- Diagnostic value not influenced by education level or language
- Sensitivity 99%, Specificity 93%

Evaluation of AD

Mini-Mental State Examination

- Cognitive measurement
- Brief, structured mental status examination
- 10-15 minutes to administer
- Sensitivity and specificity vary by population
- Adjustments need to be made for age, gender, education and race

Scores Range From 0 to 30

28-30 = Normal
25-27 = Possible mild cognitive impairment
19-24 = Mild dementia
10-18 = Moderate dementia
0-9 = Severe dementia

Typical deterioration of 3 to 4 points per year

# Montreal Cognitive Assessment (MOCA)

**Visuospatial / Executive**
- Copy cube
- Draw clock (Ten past eleven) (3 points)

**Naming**
- [ ] Contour
- [ ] Numbers
- [ ] Hands

**Memory**
- Read list of words, subject must repeat them. Do 2 trials. Do a recall after 5 minutes.
- 1st trial
- 2nd trial
- Face
- Velvet
- Church
- Daisy
- Red

**Attention**
- Read list of digits (1 digit/sec.). Subject has to repeat them in the forward order
- Subject has to repeat them in the backward order
- [ ] 2 1 8 5 4
- [ ] 7 4 2
- [ ] FBACMNAAJKLBAFKDEAAAJAMOFAB

**Language**
- Repeat: I only know that John is the one to help today.
- The cat always hid under the couch when dogs were in the room.

**Abstraction**
- Similarity between e.g. banana - orange - fruit
- Train - bicycle
- Watch - ruler

**Delayed Recall**
- Has to recall words with no cue
- Optional
- Category cue
- Multiple choice cue
- Points for UNCUED recall only

**Orientation**
- Date
- Month
- Year
- Day
- Place
- City

---

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www.mocatest.org
AD “Testing”

- **ACOVE Guidelines:**
  - **Memory:**
    - REMOTE: What happened to President Kennedy? Where? Who shot him? (or other appropriate question)
    - RECENT: What happened 9/11/01? Buildings/cities affected/Who was responsible?
  - **Executive Function:**
    - Bread is 75 cents/loaf. Buy 2 loaves with $2. Change?
    - Fish is $8/lb. Buy ½ pound with $5. Change?
  - **Language:**
    - Name animals in zoo/jungle/farm (Normal $\geq 10$/min)
  - **Visual/spatial:**
    - Clock Drawing

Hachinski Score

- Abrupt onset: 2
- Stepwise deterioration: 1
- Fluctuating course: 2
- Nocturnal confusion: 1
- Relative preservation of personality: 1

Scoring:

< 4 – suggestive degenerative dementia
> 7 – indicative of VaD

- Depression: 1
- Somatic Complaints: 1
- Emotional Incontinence: 1
- Hypertension: 1
- Hx Strokes: 2
- Atherosclerosis: 1
- Focal Symptoms: 2
- Focal Signs: 2
Confusion Assessment Method (CAM)

- High sensitivity (94%-100%)
- Negative predictive accuracy, 90%-100%
- High specificity (90-95%)
- 9 questions, less than 5 minutes
- Easy to use by all staff members with very little training
- Use the Diagnostic Algorithm

<table>
<thead>
<tr>
<th>Table 19.2—The Confusion Assessment Method</th>
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<td>The diagnosis of delirium requires the presence of features 1 and 2 and either 3 or 4.</td>
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1. Acute change in mental status and fluctuating course
   - Is there evidence of an acute change in cognition from the patient’s baseline?
   - Does the abnormal behavior fluctuate during the day, ie, tend to come and go, or increase and decrease in severity?

2. Inattention
   - Does the patient have difficulty focusing attention, eg, being easily distractible, or having difficulty keeping track of what was being said?

3. Disorganized thinking
   - Is the patient’s thinking disorganized or incoherent, eg, rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

4. Altered level of consciousness
   - Is the patient’s mental status anything besides alert, ie, vigilant (hyperalert), lethargic (drowsy, easily aroused), stuporous (difficult to arouse), or comatose (unarousable)?
As a primary care physician, I believe that the following patients should be “screened” for cognitive impairment annually

1. Everyone over age 65
2. Everyone over age 75
3. Everyone over age 85
4. Only those who complain of memory symptoms
“Which age do you mean?
My anatomic, psychologic, physiologic, moral, or chronologic?”
• **Advanced Medical Home**
  - Competent team of health care practitioners
  - Skilled in chronic care management
  - Care Coordination
  - Informed actively involved patients
  - Evidenced based guidance
  - Technology utilization
  - Revised reimbursement system
  - Goal: Patient Centered Care

JAGS Oct 2008
“Do you promise to love each other in sickness or health, full coverage or Medicare?”
• Physician Workforce Recommendations (IOM 2008)
  – Training of residents in all settings where older adults receive care, including LTC facilities, ALF’s and patients’ homes.
  – All licensure, certification and maintenance of certification for physicians should include demonstration of competence in the care of older adults
  – Public and private payers should provide financial incentives to increase the number of geriatric specialists
• Physician Workforce Recommendations (IOM 2008)
  – All payers should include a specific enhancement of reimbursement for clinical services delivered to older adults by practitioners with a certification of special expertise in geriatrics
  – Congress should authorize and fund an enhancement of the GACA program to support junior geriatrics faculty
  – States and federal government should institute programs for loan forgiveness, scholarships and direct financial incentives for professional who become geriatric specialists (National Geriatric Service Corps)
Osteopathic physicians are well positioned to ride the aging tsunami
And
assess older adults
“This increase in the life span and in the number of our senior citizens presents this Nation with increased opportunities....

It is not enough for a great nation merely to have added new years to life – our object must also be to add new life to those years.’

President John F. Kennedy
Special message to Congress
February 21, 1963