Screening for dementia, depression, and anxiety in older patients: Why, how, and then what?

Soo Borson MD
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DISCLOSURES

• No financial conflicts of interest

• Co-lead, M-BARC: Minnesota Brain Aging Research Collaborative

• Consultant/research collaborator, Allina Division of Applied Research, MN; MSU and Billings Clinic, MT; NYU; CHOICE, Indiana U, IN; SCAN Health Plan, CA

• Alzheimer’s Association workgroups on cognitive assessment in the Annual Wellness Visit, NAPA milestones for care and support, and GPPP6, dementia care planning benefit

• ACT on Alzheimer’s health care summit; National Advisory Committee, Dementia Friendly America

• Current grant funding: NIA, PCORI, NY State Department of Health
What do dementia, depression, and anxiety have in common?

The head has been mostly invisible in health care…
Why?

• Measured by people (not machines)
• Easy fixes rare
• Treatment = people ≥ pills
• Weak specialist supply and/or access
• Poor fit with traditional primary care

But...

• All affect general health care utilization, especially acute care
• All can worsen chronic disease outcomes
• Easily missed by eyeball method
• Detectable by screening
• Clinical care pathways exist
Basic Premise:
You can’t manage what you can’t see!

- Problems with cognition and mood
  - Often invisible
  - Prevalent
  - Consequential
  - Manageable

- Active case-finding (screening)
  - Necessary
  - Not sufficient

Essentials
Better Patient Care + Better Population Health
Population Management Tools = Better Individual Outcomes

1. Routine case finding
2. Clear goals of care
3. Specific clinical pathways/timelines
4. Response tracking and care plan revision
5. Patient registry for population management
Today’s Learning Objectives

1. Be comfortable with using common screening tools.

2. Be ready to talk about screening with patients, families, and clinical teams.

3. Be prepared to act on screening results when you get them.
SCREENING FOR DEMENTIA

- 2 approaches
  - Direct – screen the patient
  - Indirect – screen by proxy
- 2 convenient methods
  - Mini-Cog: 3 words + clock drawing
  - AD-8: 8 questions about everyday cognition

Mini-Cog references at mini-cog.com; AD: Galvin JE et al, Neurol2005;65(4):559-64.
Screening for Dementia with the Mini-Cog

**CDR Stage**
- MCI
- Mild
- Mod
- Severe

**Mini-Cog Score 0-2/5**
- Patient’s own physician

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**Screening for Cognitive Impairment in the Annual Wellness Visit**

**% positive screens by age**

**Mini-Cog Score 0 - 2**

AD-8 Interview:
Time frame = past several years

<table>
<thead>
<tr>
<th>Has there been a change?</th>
<th>Yes</th>
<th>No</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Judgment, decisions</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Lowered interest</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Repeats things over and over</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Trouble learning to do something</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Forgets month/year</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Trouble with complex finances</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Trouble remembering appts</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Daily problems with thinking/memory</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL OF “YES” SCORES: 2+ cognitive impairment likely (3+ better for dementia)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


SCREENING FOR DEPRESSION

- PHQ-2
- PHQ-9

# PHQ-2

**Time frame = past 2 weeks**

<table>
<thead>
<tr>
<th>Little interest or pleasure in doing things (anhedonia)</th>
<th>Not at all</th>
<th>Several days</th>
<th>&gt;Half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feeling down, depressed, or hopeless (depressed mood)</th>
<th>Not at all</th>
<th>Several days</th>
<th>&gt;Half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

- **PHQ-2**
  - 0-2 depression unlikely
  - 3-6 depression likely

*Kroenke K, Spitzer RL, Williams JB. Medical Care 2003, (41) 1284-1294.*

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# PHQ-9

**Screening, diagnosis, and monitoring**

- Based on diagnostic criteria
- Face-to-face, phone, self-administration
- Strong relationship with depression diagnosis and severity
- Valid in older adults in primary care
- Good for all-around clinical use – fits most patient and practice types
## PHQ-9
**Time frame = 2 weeks**

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>&gt; Half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little interest or pleasure</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Down, depressed, hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Too little/too much sleep</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tired, low energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Low appetite, overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling bad about yourself</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Trouble concentrating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Slowed down or restless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Better off dead, self-harm</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**COLUMN TOTALS**

<table>
<thead>
<tr>
<th></th>
<th>__+</th>
<th>__+</th>
<th>__+</th>
</tr>
</thead>
</table>

**TOTAL SCORE** **0-27**

## INTERPRETING PHQ-9

<table>
<thead>
<tr>
<th>PHQ-9 Score</th>
<th>Provisional Diagnosis</th>
<th>Treatment Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-9</td>
<td>Minimal Sx</td>
<td>Support, RTC 1 month, call sooner if worse</td>
</tr>
<tr>
<td>10-14*</td>
<td>Minor depression, dysthymia, mild major depression</td>
<td>Support (treat if prolonged or functionally impaired)</td>
</tr>
<tr>
<td>15-19*</td>
<td>Major depression, moderate</td>
<td>Antidepressant or psychotherapy</td>
</tr>
<tr>
<td>&gt;20*</td>
<td>Major depression, severe</td>
<td>Antidepressant AND psychotherapy</td>
</tr>
</tbody>
</table>

* Treatment more urgent when everyday function impaired by depression
SCREENING FOR (DIS)STRESS

- **Stress**
  - One question: “Do you feel tense, nervous, anxious, restless, or unable to sleep because your mind is troubled all the time?” (Elo et al, 2003; IOM 2014)
  - Thermometer – several versions, DT validated in cancer patients (Donovan et al, 2014) and ST validated in dementia caregivers (Borson et al, 2014)

CAREGIVER STRESS THERMOMETER

- Not stressed at all
- A little stressed
- Moderately stressed
- Very stressed
- Extremely stressed
Dementia: Identifying High Needs in Primary Care

N = 215

<table>
<thead>
<tr>
<th>Low-Mod Stress</th>
<th>High Stress + High Behavior Problems</th>
<th>% with Gaps in Medical Care</th>
<th>% with Gaps in Psychosocial Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12%</td>
<td>67%</td>
</tr>
<tr>
<td>Low Behavior Problems</td>
<td>23%</td>
<td>70%</td>
<td></td>
</tr>
</tbody>
</table>


SCREENING FOR ANXIETY

- **GAD-2** – first stage screen
  - 0-2, no diagnosis; 3-6 probable anxiety disorder (may be enough)
- **GAD-7** – quasi-diagnostic test
  - 0-7 no diagnosis; 8+ probable anxiety disorder

Lowe B et al. Med Care 2008; 46(3): 266-274.
### Past 2 weeks...

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Several days</th>
<th>&gt; Half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nervous, anxious, on edge</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Can’t stop or control worrying</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Worry about different things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Trouble relaxing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>So restless hard to sit still</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Easily annoyed, irritated</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Afraid as if something awful might happen</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

If yes to any of these…

Problems working, taking care of things, getting along with people because of symptoms? None Some A lot Extreme

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**GAD-2 (1st 2):** 0-2, no diagnosis; 3-6 probable anxiety disorder  
**GAD-7 (all questions):** 0-7 no diagnosis; 8+ probable anxiety disorder

Lowe B et al. Med Care 2008; 46(3): 266-274.

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### Lower GAD Cutoffs for Older People

- **ESTHER study:** n= 438, aged 58-82
- **Generalized anxiety disorder identified by structured psychiatric interview:**
  - 6% of population met criteria
  - For screening, best GAD-2 = 2+, best GAD-7 = 5+
  - Sensitivity 0.6-0.7, specificity 0.9

**Targets for Improving Health Care Quality**

- Missed diagnosis
- Medication mistakes
- Unnecessary crises
- Poorly focused care goals
- Safety risks
- Family breakdown
- Poor chronic disease control
- Inappropriate Rx
- Discontinuity of care
- Preventable hospitalizations, readmissions, complications, mortality

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**Older Adults Do Better with Integrated (Mental Health) Services**

- < 3% see a mental health specialist
- What’s better?
  - Enhanced referral: facilitated scheduling, special payment, transportation – OR –
  - Mental health services integrated into primary care
- RCT with 2022 older adults with depression, anxiety, or at-risk alcohol use
  - Mean age 73, 48% minority

Bartels SJ et al, Am J Psychiatry 20014; 161: 1455-1462
### Results: Engaging Older People In Mental Health Treatment

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Integrated Care</th>
<th>Enhanced Referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Engagement</td>
<td>71%</td>
<td>49%</td>
</tr>
<tr>
<td>Mean # visits</td>
<td>3</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Time to first visit ≤ 14d</td>
<td>37%</td>
<td>15%</td>
</tr>
<tr>
<td>Depression</td>
<td>75%</td>
<td>52%</td>
</tr>
<tr>
<td>Problem drinking</td>
<td>72%</td>
<td>29%</td>
</tr>
<tr>
<td>Active suicidal thoughts</td>
<td>83%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Bartels SJ et al, Am J Psychiatry 20014; 161: 1455-1462

### Organizing Care for Better Outcomes

- Getting the language right*
- Setting goals for specific conditions
  - What services should be provided?
  - Where should care happen?
  - Who should provide it?
  - Who should receive it?
- Assessing the gaps – which can we fill?
- Making the case for change
**Dementia Care Pathway**

**Screening (Annual Wellness Visit or other)**

- CI detected/suspected in primary care
- Patient, family, or clinician concern

**Brain Health Visit**

- PCP
- Confirm? Initial history, search/fix remediable causes

- Better
- Typical, uncomplicated dementia

- ~80%

**Dementia Diagnostic Visit**

- Basic diagnosis & clinical features identified; needs assessment (patient and caregiver)

- PCP follow-up, monitoring

**Dementia Care Pathway**

- Neurology
- Psych/Ger Psychiatry
- Geriatr Med
- Care Management
- & Support

- Rapid progression, major neuro signs, early/young onset
- Dominant psych/behavioral issues (patient, caregiver)
- Complex co-morbidity, geriatric syndromes
- Complex psychosocial/family / care coordination needs

- Neurology
- Psych/Ger Psychiatry
- Geriatr Med
- Care Management
- & Support

- Persistent CI identified

- Criterion-based triage to specialty services (~20%)

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**Depression/Anxiety Care Pathway**

**Screening (Annual Wellness Visit or other)**

- Depression/anxiety detected/suspected in primary care
- Patient, family, or clinician concern

**Depression/Anxiety Diagnostic Visit**

- PCT

- PCT follow-up, monitoring

**Depression/Anxiety Care Pathway**

- Psychology
- Psychiatry/Ger Psychiatry
- Geriatr Med
- Care Management
- & Support

- Needs more intensive psychotherapy
- Acute risk of self-harm, med-resistant or complex
- Complex co-morbidity, geriatric syndromes
- High stress, complex psychosocial/family / care coordination needs

- PCT care plan, follow-up, monitoring/tracking

- Depression Manager/Initiate Treatment

- Moderate-severe symptoms

- Criterion-based triage to specialty services

Adapted from Minnesota Brain Aging Research Collaborative (M-BARC) 8-20-16
SUPPORTING WHOLE PERSON CARE
CMS Incentive Tools for Depression and Dementia

The Learning Health Care System:
Blending Science and Care

Figure © American College of Physicians.