HEALTH

PHQ-9: Value Added to MDS Assessments

CALTCM Annual Meeting

July, 2011

Disclosure Information

- Debra Saliba, MD MPH

  Director, UCLA/JH Borun Center

  Staff physician, Los Angeles VA GRECC

  Senior Natural Scientist, RAND

  - I have no financial relationships to disclose
  - I will not discuss off label or investigational use of medical products

- Collaborators on Mental Health: Joel Streim, MD; Ira Katz, MD, PhD; Susanne DiFillipo, RN; Joan Buchanan PhD

Learning Objectives

- Know why depression is an important quality focus in NH populations
  - Prevalence
  - Risk factors
  - Association with outcomes and physiological changes
- Describe tested performance of PHQ-9 in NH populations
- Understand PHQ-9 content and scoring

Changing the MDS Culture

- Over the years, the MDS 2.0 became an assessment tool used primarily by the MDS Coordinator.
- A primary goal of MDS 3.0 was to increase the clinical relevance of MDS for assessment and care planning
- Stakeholders identified the mood section as needing significant change.
  - Independent studies showed that MDS missed major depression
  - MDS items were not helpful in tracking change

Why Target Mood?

- Depression is common in Nursing Homes
- Prevalence Rates Vary; for major depression
  - Community-based prevalence: 2%
  - Primary care older adult population: 6-10%
  - In nursing home, estimated rates of major depression 17 – 30%
- Include minor and major: 25%

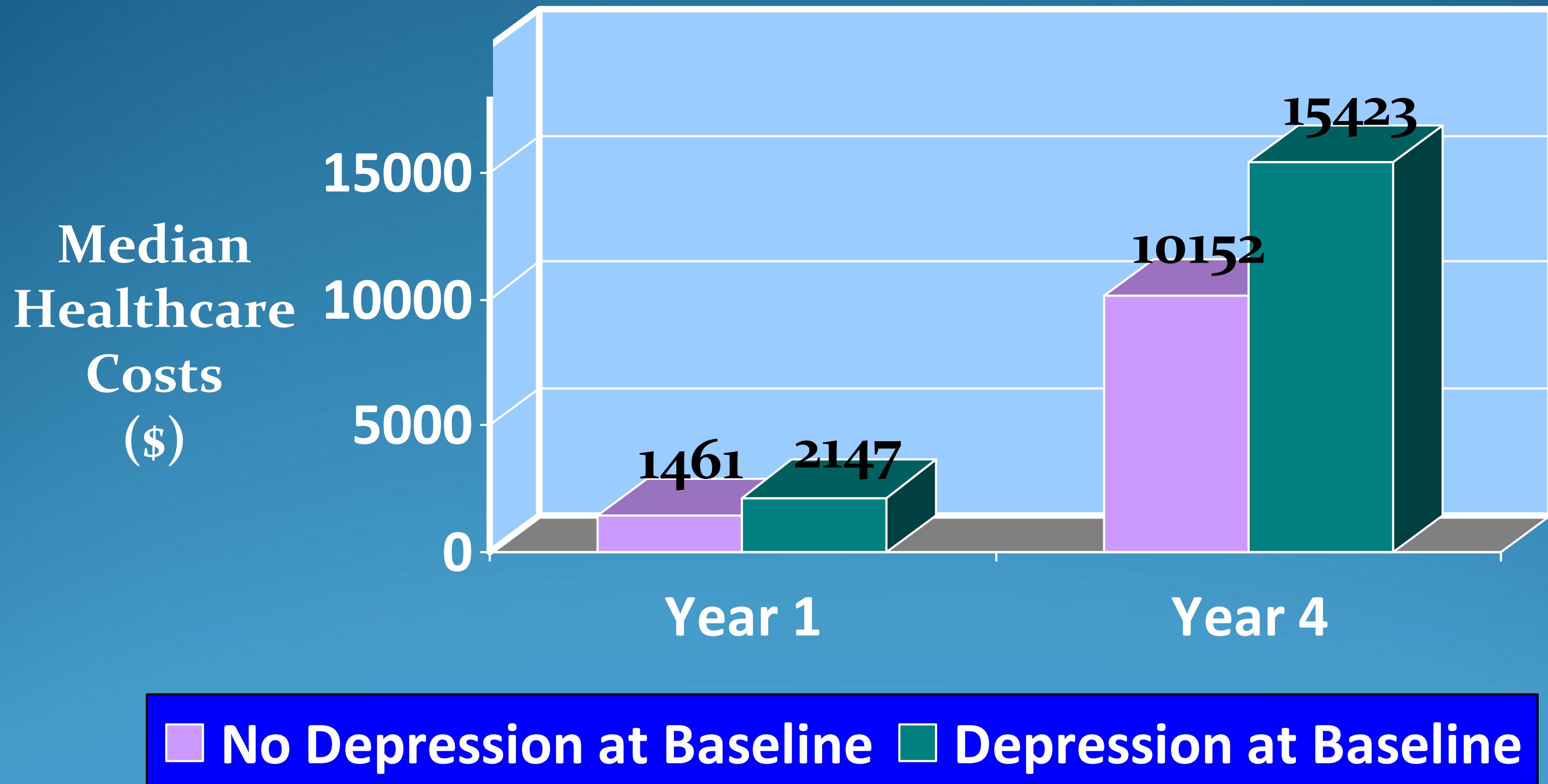
Why is Depression More Common in Nursing Homes?

- Depression increased in:
  - Neurologic Disease
    - Stroke
    - Parkinson's Disease
    - Dementia
    - TBI
  - Myocardial Infarction
  - Cancer
  - Recent Severe Illness
  - Multiple medical conditions
  - Hospital populations
  - Women
  - Social Isolation
  - Prior episode of depression

Recognition of Depressed Mood is Important

- Depression is associated with
  - Distress & suffering
  - Poorer functional status
  - Increased pain
  - Poorer outcomes for comorbid conditions
    - Slower wound healing
    - Higher HbA1C
  - Suicide
  - Overall mortality
  - Substance abuse

Health Care Costs Associated With Depression



Unutzer et al. 1997

Biologic Changes in Depression

- Range of changes in brain architecture and neurotransmitters
  - Involves imbalances in norepinephrine, serotonin, dopamine and/or GABA
- Depression associated with physiologic changes:
  - Autonomic dysfunction
  - Increased levels of cortisol
  - Increased insulin resistance
  - Increased platelet aggregation
  - Decreased cellular immunity (NK T-cells)

Alternative Approaches to Screening

- Self Report
  - Geriatric Depression Scale (GDS)
  - PHQ-9
  - Center for Epidemiologic Studies Depression Scale (CES-D), NIMH (20 item)

- Observer Reported

PHQ-9 = DSM IV Items

Over the past two weeks, have you been bothered by

1. Little interest or pleasure in doing things?
2. Feeling down, depressed or hopeless?
3. Trouble falling or staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself– or that you are a failure or have let yourself or your family down

PHQ-9 (continued)

6. Trouble concentrating on things, such as reading the newspaper or watching television
7. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual
8. Thoughts that you would be better off dead or of hurting yourself in some way

Not in MDS 3.0: Causes clinically significant distress or impairment in social/occupational functioning

If yes to any of 9, asked how often

0. Not at all (0-1 days)
1. Several days (2-6 days)
2. More than half the days (7-11 days)
3. Nearly every day (12-14 days)

PHQ-9 is increasingly used for screening

- Validity has been established in:
  - Outpatient adults
  - Outpatient older adults (IMPACT)
  - Multiple languages, including Spanish
  - Rehabilitation populations post stroke
  - Home Health Populations
  - Cancer patients
- Change in score is used to track treatment response

Pilot Test of PHQ-9 in NH

- 287 Residents
  - Took less time than GDS
  - Same # of residents completed GDS 15 and PHQ-9
    - PHQ-9 completion was not associated with increased mental status score
  - Fewer cases with PHQ-9
    - 70% had GDS >10
    - PHQ9 major = 8.6% Minor = 29%
  - Internal reliability better for PHQ-9 (.854) than for GDS (.732)
    - GDS varied more by cognitive level

National Test of PHQ-9

- 4586 Residents in 90 NHs across 12 states
  - Included all non-comatose residents scheduled for MDS assessment
- 82% of non-comatose residents completed interview
- 84% of staff

PHQ-9 Interview was More Valid than MDS 2.0

	Correlation with gold standard
PHQ9	0.83
GDS	0.71
MDS 2.0	0.23

PHQ-9 OV was More Valid for Residents unable to self-report

	Correlation with Gold Standard Measure
PHQ9OV	0.85
MDS 2.0	0.27

PHQ-9 Scoring -- Threshold

- Consider Major Depressive Disorder
  - 5 or more symptoms on more than ½ days AND one is
    - #1 little interest or pleasure or
    - #2 down, depressed or hopeless
- Consider Other Depressive Disorder
  - 2 to 4 symptoms on more than ½ days AND one is
    - #1 little interest or pleasure or
    - #2 down, depressed or hopeless

PHQ-9 Severity Score

Possible Depression	Score Cut points
None (minimal)	0-4
Mild	5-9
Moderate	10-14
Moderately Severe	15-19
Severe	20-27

PHQ-9 Quality Implications

- PHQ-9 is more accurate at detecting possible mood disorder
  - **Is not diagnostic, will need follow up**
  - **Increased use improves ability to communicate with other settings**
- Higher score is associated with need for more staff time
- Allows to measure whether improving
- Expect more cases
- Staff need assistance in learning how to conduct interview (VIVE)
- Facilities will need protocols for care planning
  - Mood disorder
  - Thoughts of self harm

Summary

- Mood disorder is prevalent in NHs
  - Residents have multiple risk factors
- Depression is associated with poor clinical outcomes and physiologic changes
- PHQ-9 screening has been tested in NH populations and found to be valid
- PHQ-9 requires follow-up evaluation to determine if symptoms are related to mood disorder

Useful Links

- Video for Interviewing Vulnerable Elders (VIVE)
  http://www.youtube.com/watch?v=Ereawm4_F7k
- MDS 3.0 Report on Borun Center Website
  http://www.geronet.med.ucla.edu/centers/borun/MDS%203.0%20Final%20Report.pdf
- MDS 3.0 Educational Materials & Manual on CMS Website
  https://www.cms.gov/NursingHomeQualityInits/45_NHQIMDS30TrainingMaterials.asp#TopOfPage

Useful Links (2)

- PHQ-9 Spanish Language Translation

  http://www.phqscreeners.com/pdfs/02_PHQ-9/PHQ9_Spanish%20for%20the%20USA.pdf

- IMPACT Study on Depression in Older Adults

  http://impact-uw.org/

- More Information on the Use of PHQ-9 (The MacArthur Initiative on Depression and Primary Care)

  http://www.depression-primarycare.org/clinicians/toolkits/materials/forms/phq9/

HEALTH

Questions?

CALTCM Annual Meeting

July, 2011