I am not depressed: Assessment and Treatment of Depression in Older Adults in Primary Care

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Disclosures (past 5 years):

National Institute of Mental Health

National Institute on Aging

National Center for Minority Health and Health Disparities

National Heart, Lung, and Blood Institute

Centers for Medicare & Medicaid Services (CMS)

Patient Centered Outcomes Research Institute (PCORI)

John A. Hartford Foundation

American Foundation for Suicide Prevention

Commonwealth of Pennsylvania

UPMC Endowment in Geriatric Psychiatry

Forest Laboratories, Pfizer, Lilly, Bristol-Myers Squibb
(provide pharmaceuticals for NIH-sponsored research)
Depression and Sleep Disturbances
Webcast, The Discovery Channel.

Depression and Sleep Disturbances-WMV9 1280x720 16x9.wmv
Clinical Vignette: Fred

History

• 72-year-old, retired bus driver
• Went through a period after retirement when he was tired and didn’t go out much (not sure but may have lasted 4 months, received no treatment)
• Never sought psychiatric treatment
• Lives with his wife, has some social activities, but lately he prefers to stay at home
• Referred by his primary care doctor for evaluation
Clinical Vignette: Fred

Diseases/Comorbidities/Medications

• Fatigue, muscle aches and pains, and reduced appetite. The fatigue and aches and pains are present daily and throughout the day

• Hypertension controlled with medication

• Osteoarthritis

• Aspirin helps his stiffness in the morning but not other aches and pains
Clinical Vignette: Fred

Examination

• When asked, allows that he is discouraged and wonders if he’ll ever get better
  • Admits he doesn’t enjoy things
  • Says his pain interferes
• PHQ-9 = 16
• Endorses reduced concentration and some difficulty with sleep
• Mental status: cooperative but without animation, no sign of psychotic thinking
• MMSE = 28/30.

MMSE = Mini-Mental State Examination; PHQ-9 = Patient Health Questionnaire-9.
Remission Is the Goal of MDD Therapy

- Response without remission is associated with
  - Disabling symptoms
  - Higher rates of relapse and recurrence
  - Impaired psychosocial functioning
  - Higher levels of health care use

Contribution of Change in Core Depressive Symptoms, Somatic Symptoms, and Pain to Improvement in Functional Status During Treatment

Meta-analysis of Response Rates on Drug vs Placebo in 10 Trials with 13 Contrasts

- 10 trials
- Total N = 4165
  - 2377 active drug
  - 1788 placebo
- Odds Ratio for response
  - $\text{OR}_{\text{drug vs placebo}} = 1.40$ (95% CI, 1.24-1.57, $Z = 5.45$, $P < .001$)
- Drug treatment was significantly better than placebo but the NNT was 13

* $P < .001$

CI = confidence interval; NNT = number needed to treat; OR = odds ratio.

Strategies for Remission in the Presence of Incomplete Response

- Combination
- Switching
- Augmentation
- Adjunctive therapy
- Evidence-based psychotherapies
Public Health Significance of Late-Life Depression

- ↑ healthcare utilization and costs
- ↓ quality of life
- poorer prognosis for comorbid conditions
- ↓ survival
- suicide

Waging War on Depression and Suicide in Primary Care Elderly

- A Randomized Controlled Trial Utilizing Citalopram and Depression Care Management (n = 598) in 20 Primary Care Practices

- Rates of suicidal ideation declined faster (p = .01) in intervention patients compared with usual care patients

- Among patients reporting suicidal ideation, resolution was faster among intervention patients (p = .03); differences peaked at 8 months (70.7% versus 43.9% resolution; p = .005)

PROSPECT (Prevention of Suicide in Primary Care Elderly: Collaborative Trial). Bruce M, Tenhave T, Reynolds CF et al. *JAMA* 291(9):1081-1091, 2004
PROSPECT’S Intervention: Guideline Management

- Identification of Diagnosis
- Physician Education
- Patient & Family Psycho-Education

DEPRESSION SPECIALIST & TREATMENT ALGORITHM
More Intensive Treatment Leads to Higher Response Rates

After a median follow-up of 52.8 months, patients with major depressive disorder in intervention practices were less likely to have died than patients in usual care practices:

adjusted hazard ratio = 0.55 (CI, 0.36-0.84)

Survival probability among persons with no depression (red line) or major depression (blue line) in practices randomized to usual care or to the intervention. Data from PROSPECT (1999-2008).

Adjusted hazard ratios for specific causes of death (with associated 95% confidence intervals) comparing major depression to no depression within intervention (green) or usual care (orange). Data from PROSPECT (1999-2008).

Telephone treatment of post-CABG depression speeds recovery and may reduce re-hospitalizations.
How Depression May Affect CAD

Post-MI Depression

6-Month Mortality:
- 17% depressed vs. 3% nondepressed
- Univariate hazard ratio of depression: 5.7 (4.6-6.9)

Response, Remission, Recovery, Relapse, Recurrence & Chronicity

Response, Remission, Recovery, Relapse, Recurrence & Chronicity

‘Normalcy’

Symptoms

Syndrome

Treatment phases

Acute

Continuation

Maintenance

Chronicity

Kupfer, 1991
Factors Contributing to Relapsing, Chronic Illness Course in Late-Life Depression

- Psychosocial factors: role transitions, bereavement, increasing dependency, interpersonal conflicts
- Progressive depletion of psychosocial and economic resources
- Chronic sleep disturbances
- Cerebrovascular disease
- Neurodegenerative disorders
- Limited access to adequate treatment
Maintenance Treatment of Major Depression in Old Age

Charles F. Reynolds III, M.D., Mary Amanda Dew, Ph.D., Bruce G. Pollock, M.D., Ph.D., Benoit H. Mulsant, M.D., Ellen Frank, Ph.D., Mark D. Miller, M.D., Patricia R. Houck, M.S.H., Sati Mazumdar, Ph.D., Meryl A. Butters, Ph.D., Jacqueline A. Stack, M.S.N., Mary Ann Schlernitzauer, M.S.N., Ellen M. Whyte, M.D., Ariel Gildengers, M.D., Jordan Karp, M.D., Eric Lenze, M.D., Katalin Szanto, M.D., Salem Bensasi, B.S., and David J. Kupfer, M.D.

Time to Recurrence from Randomization:

Log rank $X^2=9.77$, df=3, p=.0206

Higher Recurrence Rates of Depression Associated with Level of Chronic Medical Burden

Comparison:
Alzheimer’s disease vs. Vascular Dementia in participants with LLD

<table>
<thead>
<tr>
<th>Study or Subgroup</th>
<th>Weight</th>
<th>Odds Ratio IV, Random, 95% CI</th>
<th>Odds Ratio IV, Random, 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1.1 Vascular Dementia</td>
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<tr>
<td>Hebert 2000</td>
<td>4.8%</td>
<td>2.41 [1.26, 4.60]</td>
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<tr>
<td>Irie 2008</td>
<td>1.4%</td>
<td>2.20 [0.63, 7.72]</td>
<td></td>
</tr>
<tr>
<td>Köhler 2011</td>
<td>1.4%</td>
<td>3.03 [0.87, 10.64]</td>
<td></td>
</tr>
<tr>
<td>Lenoir 2011</td>
<td>3.4%</td>
<td>4.81 [2.19, 10.53]</td>
<td></td>
</tr>
<tr>
<td>Li 2011</td>
<td>5.6%</td>
<td>1.79 [0.99, 3.22]</td>
<td></td>
</tr>
<tr>
<td>Subtotal (95% CI)</td>
<td>16.7%</td>
<td>2.52 [1.77, 3.59]</td>
<td></td>
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</tbody>
</table>

Heterogeneity: $\tau^2 = 0.00; \text{Chi}^2 = 4.07, \text{df} = 4 (P = 0.40); I^2 = 2$

Test for overall effect: $Z = 5.12 (P < 0.00001)$

<table>
<thead>
<tr>
<th>7.1.2 Alzheimer’s disease</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Becker 2009</td>
<td>2.2%</td>
<td>1.34 [0.49, 3.63]</td>
<td></td>
</tr>
<tr>
<td>Chen 1999</td>
<td>2.6%</td>
<td>1.28 [0.51, 3.23]</td>
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<tr>
<td>Dal Forno 2005 (M)</td>
<td>5.6%</td>
<td>1.99 [1.11, 3.59]</td>
<td></td>
</tr>
<tr>
<td>Dal Forno 2005 (W)</td>
<td>2.9%</td>
<td>0.69 [0.29, 1.64]</td>
<td></td>
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<tr>
<td>Devanand 1996</td>
<td>5.6%</td>
<td>1.92 [1.06, 3.45]</td>
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<tr>
<td>Fuhrer 2003</td>
<td>8.9%</td>
<td>1.80 [1.17, 2.78]</td>
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<tr>
<td>Gatz 2005</td>
<td>4.1%</td>
<td>2.75 [1.36, 5.56]</td>
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<tr>
<td>Geerlings 2000</td>
<td>4.1%</td>
<td>2.01 [0.99, 4.08]</td>
<td></td>
</tr>
<tr>
<td>Geerlings 2008</td>
<td>2.5%</td>
<td>1.02 [0.40, 2.61]</td>
<td></td>
</tr>
<tr>
<td>Irie 2008</td>
<td>4.3%</td>
<td>3.00 [1.51, 5.97]</td>
<td></td>
</tr>
<tr>
<td>Köhler 2011</td>
<td>3.0%</td>
<td>1.80 [0.78, 4.19]</td>
<td></td>
</tr>
<tr>
<td>Lenoir 2011</td>
<td>4.8%</td>
<td>1.00 [0.52, 1.91]</td>
<td></td>
</tr>
<tr>
<td>Li 2011</td>
<td>13.2%</td>
<td>1.43 [1.05, 1.96]</td>
<td></td>
</tr>
<tr>
<td>Lindsay 2002</td>
<td>6.2%</td>
<td>1.43 [0.83, 2.48]</td>
<td></td>
</tr>
<tr>
<td>Palmer 2007</td>
<td>4.8%</td>
<td>1.90 [0.99, 3.62]</td>
<td></td>
</tr>
<tr>
<td>Szczepanski 2010</td>
<td>8.4%</td>
<td>1.90 [1.21, 2.98]</td>
<td></td>
</tr>
<tr>
<td>Subtotal (95% CI)</td>
<td>83.3%</td>
<td>1.65 [1.42, 1.92]</td>
<td></td>
</tr>
</tbody>
</table>

Test for subgroup differences: $\text{Chi}^2 = 4.65, \text{df} = 1 (P = 0.03); I^2 = 78.5$

Neuropsychological Features of LLD

SUMMARY

1. Impairment is substantial and highly prevalent

2. Impairment persists after remission

3. Substantial risk of progressive cognitive decline and dementia even among individuals without initial impairment
Maintenance Treatment of Depression in Old Age

A Randomized, Double-blind, Placebo-Controlled Evaluation of the Efficacy and Safety of Donepezil Combined With Antidepressant Pharmacotherapy

Charles F. Reynolds III, MD; Meryl A. Butters, PhD; Oscar Lopez, MD; Bruce G. Pollock, MD, PhD; Mary Amanda Dew, PhD; Benoit H. Mulsant, MD; Eric J. Lenze, MD; Margo Holm, PhD; Joan C. Rogers, PhD; Sati Mazumdar, PhD; Patricia R. Houck, MSH; Amy Begley, MA; Stewart Anderson, PhD; Jordan F. Karp, MD; Mark D. Miller, MD; Ellen M. Whyte, MD; Jacqueline Stack, MSN; Ariel Gildengers, MD; Katalin Szanto, MD; Salem Bensasi, BA; Daniel I. Kaufer, MD; M. Ilyas Kamboh, PhD; Steven T. DeKosky, MD

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Downloaded from www.archgenpsychiatry.com at University of Pittsburgh, on January 14, 2011
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Key Findings in the Cognitive Domain

• Relative to placebo + antidepressant, donepezil + antidepressant temporarily improved global cognition (treatment x time interaction $F = 3.78$, df = 2, 126, $p = .03$), but effect sizes were small (Cohen’s $d = 0.27$, group differences at one year)

• Of 57 participants with Mild Cognitive Impairment, 3/30 on donepezil (10%; 95% CI: 0, 21%) and 9/27 on placebo (33%; 95% CI: 16%, 51%) converted to dementia; Fisher exact $p = 0.05$

• Of 73 cognitively normal subjects, 6/37 (16%) on donepezil experienced cognitive decline (5 MCI, 1 dementia), and 8/36 (22.2%) on placebo showed cognitive decline (all MCI): Fisher exact $p = 0.56$
Recurrence of Major Depressive Episodes

![Graph showing recurrence of major depressive episodes in MCI and normal cognition groups.]

**MCI**
- **Donepezil (n=30; 8 rec)**
- **Placebo (n=27; 3 rec)**

**Normal Cognition**
- **Donepezil (n=37; 11 rec)**
- **Placebo (n=36; 8 rec)**
Conclusion

Whether ChEI should be used as augmentation in the maintenance treatment of late life depression with MCI depends upon a careful weighing of risks (increased recurrence of depression) and benefits (reduced rate of dementia conversion in MCI but small effects on cognition).

There appears to be no benefit of ChEI on preventing decline in cognition in patients who are cognitively normal after treatment for depression.
Prevention of depression in post-stroke patients

Cox proportional Hazards controlled for age, gender, lesion site, ADL score, MMSE and SFE showed treatment was only significant factor.

* HR 4.5, 95% CI, 2.4-8.2, p<.001 for ESC vs PL
† HR 2.2, 95% CI, 1.4-3.5, p<.001 PST vs PL

Robinson et al. JAMA, 2008
Are you stuck in the distress of grief?

You may be eligible to participate in research study at the University of Pittsburgh School of Medicine if you are age 18 and older and experiencing one or more of these symptoms of grief, for six months or longer, following the death of a loved one:

- Inability to accept the death of a loved one
- A sense of disbelief regarding the death
- Anger and bitterness
- Recurrent, painful emotions with intense yearning and longing for your loved one
- Distressing and/or frequent thoughts related to the death
- Avoidance of situations and activities that are reminders of your loved one

HEALING EMOTIONS AFTER LOSS
412-246-6006

University of Pittsburgh
Screening for Depression in Adults: U.S. Preventive Services Task Force Recommendation Statement

U.S. Preventive Services Task Force*

Description: Update of the 2002 U.S. Preventive Services Task Force (USPSTF) recommendation statement on screening for depression in adults.

Methods: The USPSTF examined evidence on the benefits and harms of screening primary care patients for depression, including direct evidence that depression screening programs improve health outcomes. The USPSTF did not reexamine evidence for those key questions that had strong, consistent evidence in the 2002 review, including questions about the accuracy of screening instruments in identifying depressed adult patients in primary care settings, and the efficacy of treatment of depressed adults with antidepressants or psychotherapy. New areas of evidence considered for this review (and not reviewed in 2002) include efficacy of treatment of depression in older adult patients, harms of screening for depression in primary care settings, and adverse events from treatment of depression in adults.

Recommendations: The USPSTF recommends screening adults for depression when staff-assisted depression care supports are in place to assure accurate diagnosis, effective treatment, and follow-up. (Grade B recommendation)

The USPSTF recommends against routinely screening adults for depression when staff-assisted depression care supports are not in place. There may be considerations that support screening for depression in an individual patient. (Grade C recommendation)

For author affiliation, see end of text.
* For a list of the members of the USPSTF, see the Appendix (available at www.annals.org).
# PHQ-9

<table>
<thead>
<tr>
<th>Over the <strong>last 2 weeks</strong>, how often have you been bothered by any of the following problems?</th>
<th>Not at all</th>
<th>Several days</th>
<th>More than half the days</th>
<th>Nearly every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Little interest or pleasure in doing things</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Feeling down, depressed, or hopeless</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Trouble falling or staying asleep, or sleeping too much</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. Feeling tired or having little energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. Poor appetite or overeating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Feeling bad about yourself — or that you are a failure or have let yourself or your family down</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. Trouble concentrating on things, such as reading the newspaper or watching television</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. 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</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. Thoughts that you would be better off dead or of hurting yourself in some way</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Conclusions

• Depression in old age is treatable
  • Not only acutely (to bring about remission)
  • But also on a continuing and maintenance basis (to prevent relapse and recurrence and to prolong recovery)

• Good depression treatment can be (but usually is not) transferred to primary care

• Pharmacotherapy is the mainstay of such treatment, but combination treatment also utilizing depression-specific psychotherapy may be best for prevention of recurrence
Conclusions (Cont’d)

- All patients are appropriate candidates for 6-12 months of continuation treatment.

- Most patients are also appropriate for long-term maintenance, including those with single episodes.

- Good treatment of depression in old age reduces risk of suicide.

- Reimbursement for depression care management needs to catch up with the science.
Depression Kills. Treatment Works.
Knowing is not enough; we must apply.

Willing is not enough; we must do.

Goethe