Depression in the Elderly

Mary McCafferty, M.D.
Assistant Professor of Psychiatry
Ohio State University Medical Center

Epidemiology

- In the US and worldwide, people age 65 and over are the most rapidly growing population.
- By 2030, the geriatric population is projected to be 72 million in the US, almost 20% of the population (US Census Bureau).
- NIH Consensus Conference: “The hallmark of depression in the elderly is its association with medical comorbidity.”

DSM-IV-TR Major Depressive Episode

- A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
- Note: Do not include symptoms that are clearly due to a general medical condition or mood-incongruent delusions or hallucinations.

- (1) Depressed mood most of the day, nearly every day, as indicated by either subjective report or observation made by others.
- (2) Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day.
- (3) Significant weight loss when not dieting or weight gain or decrease or increase in appetite nearly every day.
**DSM-IV-TR Major Depressive Episode**

- (4) Insomnia or hypersomnia nearly every day
- (5) Psychomotor agitation or retardation nearly every day
- (6) Fatigue or loss of energy nearly every day
- (7) Feelings of worthlessness or excessive or inappropriate guilt nearly every day

**DSM-IV-TR Major Depressive Episode**

- B. The symptoms do not meet criteria for a mixed episode
- C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning
- D. The symptoms are not due to the direct physiological effects of a substance or a general medical condition
- E. The symptoms are not better accounted for by bereavement.

**DSM-IV-TR Major Depressive Episode**

- (8) Diminished ability to think or concentrate, or indecisiveness, nearly every day
- (9) Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide
### Prevalence of Major Depression in Older Patients

- Community samples: about 1-4%
- About 15% in long term care
- About 60% in cognitively intact long term care patients
- About 30% of patients with acute and chronic medical illness

### Minor Depression

- Prevalence 4-13% in older people
- Study by Blazer et al: About 15% of community sample 65 and up had “substantial depressive symptoms” but only 3% met DSMIII criteria for major depression

### Minor Depression

- Episodes of at least 2 weeks of depressive symptoms but with fewer than the five items required for major depressive disorder
- About 25% of patients develop major depression within 2 years
- Closely associated with physical illness
- Associated with as much disability as major depression
- Increased risk of death in 1 study
## Dysthymia

- **A.** Depressed mood for most of the day, for more days than not, as indicated by subjective account or observation by others, for at least 2 years.
- **B.** Presence, while depressed of two or more of the following:
  - (1) Poor appetite or overeating
  - (2) Insomnia or hypersomnia
  - (3) Low energy or fatigue
  - (4) Low self-esteem
  - (5) Poor concentration or difficulty making decisions
  - (6) Feelings of hopelessness

- **C.** During the 2-year period of the disturbance, the person has never been without the symptoms in Criteria A and B for more than 2 months at a time
- **D.** No major depressive episode has been present during the first 2 years of the disturbance.

- **E.** There has never been a manic episode, a mixed episode, or a hypomanic episode, and criteria have never been met for cyclothymic disorder.
- **F.** The disturbance does not occur exclusively during the course of a chronic psychotic disorder.
- **G.** The symptoms are not due to the direct physiological effects of a substance or a general medical condition.
<table>
<thead>
<tr>
<th>Dysthymia</th>
<th>Consequences of Depression</th>
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<tbody>
<tr>
<td>• About 2% of the older population</td>
<td>• Patients with depressive symptoms, or with a depressive disorder have poor functioning comparable to, or worse than, chronic medical conditions like heart or lung disease, arthritis, hypertension</td>
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<tr>
<th>Consequences of Depression</th>
<th>Depression and Medical Illness</th>
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<tr>
<td>• Disability</td>
<td>• Caine et al: “Medical illness emerges consistently as the most common clinical feature associated with depressive symptoms and diagnosis in community, outpatient, and inpatient samples.”</td>
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<tr>
<td>• Functional decline</td>
<td>• NIMH Consensus Conference: “The hallmark of depression in the elderly is its association with medical comorbidity.”</td>
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<td>• Decreased quality of life</td>
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<td>• Mortality</td>
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<td>• Demands on caregivers (who are themselves twice as likely as noncaregivers to develop depression)</td>
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<td>• ECF placement</td>
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### Depression and Medical Illness
- Depressed patients have increased service utilization
- Dunlap et al studied 7825 subjects ages 54-65 in natural probability sample, found association between chronic illness and depression
- 3.6% of subjects without chronic illness had major depression
- 1.9-18.5% of subjects with chronic illness had major depression
- Combination of heart disease and arthritis had strongest association with depression

### Depression and Cardiovascular Disease
- Depression is a risk for myocardial infarction
- Major depression in the weeks after MI significantly increases 6 month and 18 month mortality
- Patients with ischemic heart disease and depression taking an SSRI have a decreased risk of MI

### Depression and Cardiovascular Disease
- Depression complicating ischemic heart disease worsens cardiovascular outcomes
- In 1 study, older patients with depression were about 4 times more likely to die 4 months after MI than those without depression

### Depression and Cardiovascular Disease
- Depression in cardiac patients is associated with an increased number of rehospitalization days after angioplasty or CABG compared to nondepressed patients
### SADHART Study
- Large multicenter trial
- Efficacy for zoloft over placebo in mixed aged patients with recurrent depression

### Congestive Heart Failure
- Associated with a high prevalence of depression
- In a study of 1006 older patients reported this year in American Heart Journal, depression independently increased odds of death in patients with heart failure
- Patients with depression were 40% more likely to die at followup even after adjusting for age, EF, ischemic etiology, NYHA classification, diabetes, marital status

### Depression and Neurologic Disease
- 40% prevalence of depression in Parkinson's
- 20-50% of post stroke patients have depression
- Depression after stroke mediated by functional impairment

### Depression and Mild Cognitive Impairment (MCI)
- Depression in 20% of patients with MCI (JAMA 2002;288:1475-1483)
- Among patients 85 and over, 25% have comorbid depression and cognitive impairment
- Overlap in clinical presentations
### Depression and Mild Cognitive Impairment (MCI)

- 1 study: followed 840 normal elderly adults in primary care for 3.5 years found that those who developed depression were more than twice as likely to develop MCI (Arch Neurol 2006;63:435-440)
- Depressed patients' cognitive performance may not normalize with antidepressant treatment

### Depression and Dementia

- Older patients with severe white matter lesion on brain MRI are 3-5 times more likely to have depressive symptoms than those with mild or no white matter lesions
- Alexopoulos hypothesis: disruption by vascular lesions of striato-pallido-thalamic cortical pathways constitutes pathogenesis of depression

### Depression and Dementia

- Major depression is relatively uncommon in Alzheimer's disease, depressive symptoms common
- Ballard et al: 1 month prevalence of 8% of major depression in Alzheimer's, 19% in vascular dementia

### Depression and Dementia

- Depression increases risk of mild cognitive impairment and dementia
- Depression can predict future cognitive decline in patients already experiencing cognitive impairment (Archives of General Psychiatry, 1998:55: 1073-1081)
### Depression and Diabetes

- Diabetes doubles the risk of depression
- Depression is associated with poorer treatment outcomes for diabetes

### Suicide

- Among all adults, elderly most likely to die as result of suicide attempt
- Ratio of completed: attempted suicide in young women is 1:200
- Ratio of completed: attempted suicide in elderly is 1:4

### Suicide

- 20% of suicides in US involves adults 65 and up
- White males at highest risk
- Older adults often use more lethal means
- 11th leading cause of death in US

### Suicides in US, 2003

- Under 65: 10.29/100,000
- Over 65: 14.61/100,000
- Age 85 and up: 16.93/100,000
- Males 85 and up: 47.75/100,000
### Suicides in US, 2003
- 75% of older suicide victims had seen PCP in last month before death
- 41% had seen PCP in last week
- 20% had seen PCP in last 24 hours

### Social Factors and Suicide
- Living alone
- Low social interaction
- Loss of significant other

### Physical Factors Associated with Suicide
- Cancer
- Smoking
- Higher medical comorbidity

### Mental Health Factors
- Depression consistently implicated
- Prior history of suicide attempts
- Suicidal ideas
- Recurrent major depression
**Antidepressants and Suicide**

- FDA review of 372 antidepressant trials in 100,000 patients of all ages showed rates of suicidal thinking lower relative to placebo with treatment in adults 65 and over

**Study by Nelson et al**

- 728 older patients with nonpsychotic major depression
- Depressed mood
- Decreased interest in work and activities
- Psychic anxiety
- Somatic anxiety

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**Symptoms of Depression in the Elderly**

- Can be masked by physical complaints
- In 1 study (Posse and Hallstrom) major depression presented as somatic complaints in about 14% of mixed age primary care patients

**Study by Nelson et al**

- Lack of energy
- Guilt
- Middle and initial insomnia
- Suicidal ideas
- Symptoms most likely to change with treatment
### Study by Brodaty et al

- Less guilt, self esteem problems than younger depressed patients
- More severe depression
- More problems with appetite and weight loss
- Higher rates of melancholic depression
- Higher rates of psychotic depression

### Psychotic Features in Depression

#### Mood-congruent
- Delusions or hallucinations whose content is entirely consistent with the typical depressive themes of personal inadequacy, guilt, disease, death, nihilism, or deserved punishment

#### Mood-incongruent psychotic features:
- Delusions or hallucinations whose content does not involve typical depressive themes. Included are such symptoms as persecutory delusions, thought insertion, thought broadcasting, and delusions of control.

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### Psychotic Features in Depression

- Psychotic features seen in about 25% of older patients with major depression
- Delusions, hallucinations
- Treatment implications

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### Cognitive Features

- Executive deficits (i.e., problems with organizing, planning, sequencing)
- Concentration problems
- Decreased speed of mental processing

### Grief

- Uncomplicated grief can include major depression criteria EXCEPT suicidality, psychosis, severe loss of self-esteem
- Major depression in 25% in 1 group of widows 1 month after death
- Major depression in 17% 13 months after death

### Differential Diagnosis

### Depression Due to Medical Condition

- Must be direct physiologic consequence of medical condition
- Often just treating the medical condition may not be sufficient; treatment for depression may also be indicated
### Substance Induced Mood Disorder

- Diagnosis made when mood symptoms are in excess of those normally associated with the intoxication or withdrawal syndrome
- Possible substances include alcohol, amphetamine, cocaine, inhalant, opioid, PCP, sedative hypnotic

### Bipolar Disorder

- History of manic or hypomanic episode
- Patients with bipolar disorder spend more time in depression than mania or hypomania
- Treatment implications - using an antidepressant alone can be risky

### Dementia

- Apathy is common in dementia; it can mimic loss of interest in depression
- Symptoms or syndromes of depression often precede cognitive decline

### Treatment of Depression in Late Life

- Monitor risk of self harm
- Educate patient and caregivers about depression
- Treat with aim of complete remission
- Assess medications, comorbid medical illness
Treatment of Depression in Late Life

- For minor depression, watchful waiting for a few weeks is appropriate
- If symptoms persist, antidepressant and psychotherapy is treatment of choice but either alone is a reasonable alternative
- Many different providers do psychotherapy; social workers, psychologists, counselors

Psychotherapy for Late Life Depression

- Older patients seldom referred for psychotherapy
- In 5 years preceding a 2002 review, 9 psychotherapy trials in older adults published versus 700 medication trials
- Psychological intervention in combination with antidepressants effective in relapse prevention in high risk patients

Treatment of Depression in Late Life

- Good quality evidence for pharmacologic, psychologic treatment of major depressive episode
- There is evidence of efficacy for antidepressants in dysthymia and in minor depression with poor functional state
- In moderate to severe depression, combination of medication and psychotherapy associated with better outcome than either alone

Best Studied Psychotherapies

- Cognitive behavior therapy, problem solving therapy, behavioral therapy
- Reminiscence therapy shows promise
- Interpersonal therapy helpful
### Medications for Depression in the Elderly

- No significant differences in efficacy between different classes of antidepressants
- No significant differences in speed of onset of antidepressants
- Cochrane review showed antidepressants are effective in patients with physical illnesses

### Choosing an Antidepressant

- Safety in overdose
- Prior response to a particular agent
- Tolerability
- Anticipated side effects
- Drug interactions

### Medications for Depression in the Elderly

- Response rates of 50-60% with antidepressants compared to 30% with placebo
- Dropout rates in therapeutic studies of antidepressant meds as high as 33%

### Best Studied Antidepressants in Elderly

- SSRI's (i.e., sertraline, paroxetine, citalopram, fluoxetine)
- Nonselective reuptake inhibiting antidepressants (mirtazapine, duloxetine, venlafaxine)
- Tricyclic antidepressants (nortriptyline, desipramine)
- Act at least indirectly by blocking central postsynaptic reuptake of norepinephrine, serotonin, or both
### Tertiary TCAs

- Amitriptyline, imipramine, doxepin
- Best avoided in elderly!
- Dangerous in OD
- Greater sedation, anticholinergic effects, cardiac effects
- Type I antiarrhythmic effects

### Side Effects of SSRIs

- Hyponatremia (perhaps 8/1000, more common in women)
- Falls
- Recent study in Archives of Internal Medicine: Associated with increased risk of bone loss at hip in women, decreased bone mineral density in men
- Potential for interaction with other meds; paxil most potent followed by prozac

### SSRIs

- Considered 1st line treatment in older patients
- 62% of antidepressant scripts in US
- Attenuate platelet activation
- In general starting dose is ½ of usual adult dose, increase as side effects allow to get full adult dosage in 1-2 weeks

### Duloxetine

- Approved for depression, neuropathic pain
- Recent study showed 8 weeks of cymbalta superior to placebo on composite score of cognitive function for older patients with MDD
- Well tolerated, greater advantage for moderate to severe depression
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<tr>
<th>Mirtazapine</th>
<th>Venlafaxine</th>
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<tr>
<td>• Sedation, weight gain (can be advantage for patients with poor sleep, appetite)</td>
<td>• Blocks serotonin, norepinephrine uptake</td>
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<td>• Rare agranulocytosis</td>
<td>• Shown to be as effective as citalopram in randomized placebo-controlled trial of 151 patients over age 65</td>
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<tr>
<td>• Found to have quicker onset of action, better tolerability, equal efficacy when compared to paroxetine in trial of 255 elderly patients (Am J Geriatric Psych 2002)</td>
<td>• Can cause increased BP in 3-5% of patients</td>
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<td>• Avoid in variably compliant patients; known to cause discontinuation syndrome</td>
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<th>Nortriptyline</th>
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<td>• Few sexual side effects, minimal weight gain, minimal orthostatic hypotension</td>
<td>• TCA, well studied in older adults</td>
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<td>• May exacerbate anxiety, psychosis</td>
<td>• Dangerous in OD</td>
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<tr>
<td>• Contraindicated in patients with seizure history, eating disorder history</td>
<td>• Safety and efficacy in doses adjusted to get levels of 80-120 ng/ml</td>
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<td>• Caution in narrow angle glaucoma, prostatism, CHF</td>
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<td>• EKG needed; BBB greatest risk of progression to heart block</td>
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## Initial Treatment

- Recommended: 3 contacts in 12 week acute treatment phase for patients with newly diagnosed depression getting pharmacotherapy, 2 contacts must be face to face
- (National Committee for Quality Assurance Health Plan Employee Data and Information measure for depression care)

## How Long to Treat?

- In patients who show at least 25% improvement it’s recommended to optimize dose
- Augmenting with psychological intervention may enhance recovery

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<th>How Long to Treat?</th>
<th>First Episode of Depression</th>
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<td>- At least 6 weeks recommended to get optimal therapeutic effect</td>
<td>- Minimum of 12 months at dose that led to remission/response</td>
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<td>- Other data show ongoing recovery up to 12 weeks, provided there has been some earlier improvement</td>
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<tr>
<td>- In patients with essentially no response in 1st 4 weeks choice is between switching, augmenting, specialist referral</td>
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### Recurrent Depression

- Continue same dose of antidepressant for 12-36 months

### High Risk

- Multiple past episodes, poor health, chronic disability, more severe social difficulties
- Treat for a minimum of 3 years
- SSRI's, TCAs effective in preventing relapse for 1-3 years in studies

### Prognosis of Late Life Depression

- In general older patients take longer to recover from depression than younger patients
- In 1 study later age at onset of depression was strongest predictor of slow recovery
- Older patients may be as likely to respond to treatment of depression but significantly more likely to relapse

### When to Refer

- When diagnosis is in doubt
- Severe depression: psychotic, severe risk to health because of failure to eat or drink
- Bipolar history
- Suicide risk
- Complex therapy indicated
- First line treatment fails