Depression in the Medically Ill

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Disclosure David Katzelnick M.D.

• Pharmaceutical Companies- None
• Principal- Healthcare Technology Systems Inc.
• Executive Board National Network of Depression Centers
Depression increases the risk of cardiovascular disease by:

A. 50%
B. 100%
C. 150-200%
D. 300%
E. No increased risk
Learning Objectives

• Identify how to diagnose depression in medically ill patients

• Describe the bidirectional relationship of depression and many medical illnesses

• Understand how to modify treatment for patients with depression and comorbid medical illness
Overlap of Severe Depression, Severe Anxiety and Severe Somatization as a Percentage of a Primary Care Population (n = 2,091)

Depression 6.6%

Anxiety 8.0%

Somatization 9.5%

1.7%

1.1%

3.4%

2.3%

1.6%

1.2%

4.4%

B Löwe et al., General Hospital Psychiatry 30 (2008) 199
General Summary of Practice Guidelines for Major Depression

• Evidence psychotherapy equivalent to medication for mild to moderate depression

• Full response: Continuation of treatment 6-12 months

• Partial response or no response:
  • Increase dose
  • Add a medication
  • Change medication
  • Add psychotherapy
  • ECT

www.psych.org/practice/clinical-practice-guidelines
Depressed patients often fail to achieve remission

- STAR*D = two thirds of patients had residual symptoms
- Factors associated with remission:
  - Lower symptom severity
  - Shorter duration index episode
  - Few psychiatric and medical comorbidities
  - Higher baseline function
  - Women
  - Higher socioeconomic group
- Remission rate decreases with each treatment level
  - First step (N=1346) 36.8%
  - Second step (N=439) 30.6%
  - Third step (N=53) 13.7%
  - Fourth step (N=16) 13.0%

Modifiable factors driving treatment resistance

- Missed concurrent psychiatric diagnoses
- Inadequate trial (dose and duration)
- Nonadherence
- Intolerance
- Psychosocial factors
  - Poor social support
  - Stressors
- Common iatrogenic and medical causes
  - Corticosteroids
  - Hypothyroidism
  - Vitamin D deficiency
  - Folate deficiency
Relationship between Major Depression and co-morbid Medical Illness is bidirectional.

“Who was first?”
“...avoid the belief that depression is an expected and unavoidable consequence of serious medical illness“

Evans D Biol Psychiatry 2005;58:175-189
### Depression diagnostic challenge for patients with medical illnesses

<table>
<thead>
<tr>
<th>Symptoms often in common</th>
<th>Depression specific symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anorexia</td>
<td>Guilt</td>
</tr>
<tr>
<td>Weight loss</td>
<td>Worthlessness</td>
</tr>
<tr>
<td>Decreased libido</td>
<td>Suicidal ideation</td>
</tr>
<tr>
<td>Fatigue</td>
<td></td>
</tr>
<tr>
<td>Anhedonia</td>
<td></td>
</tr>
<tr>
<td>Insomnia</td>
<td></td>
</tr>
</tbody>
</table>
## Contribution of Mental Conditions to the Total Cost of Care in Patients with Chronic Medical Illnesses

<table>
<thead>
<tr>
<th>Patient Groups</th>
<th>Annual Cost of Care</th>
<th>Illness Prevalence</th>
<th>% with Comorbid Mental Condition*</th>
<th>Annual Cost with Mental Condition</th>
<th>% Increase with Mental Condition</th>
</tr>
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<tbody>
<tr>
<td>All Insured</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>6.6%</td>
<td>36%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td>5.9%</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>4.3%</td>
<td>37%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes</td>
<td>8.9%</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHF</td>
<td>1.3%</td>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migraine</td>
<td>8.2%</td>
<td>43%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COPD</td>
<td>8.2%</td>
<td>38%</td>
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*Approximately 10% receive evidence-based mental condition treatment

Cartesian Solutions, Inc.™--consolidated health plan claims data
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<th>Patient Groups</th>
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<tbody>
<tr>
<td>All Insured</td>
<td>$2,920</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arthritis</td>
<td>$5,220</td>
<td>6.6%</td>
<td>36%</td>
<td>$10,710</td>
<td>94%</td>
</tr>
<tr>
<td>Asthma</td>
<td>$3,730</td>
<td>5.9%</td>
<td>35%</td>
<td>$10,030</td>
<td>169%</td>
</tr>
<tr>
<td>Cancer</td>
<td>$11,650</td>
<td>4.3%</td>
<td>37%</td>
<td>$18,870</td>
<td>62%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>$5,480</td>
<td>8.9%</td>
<td>30%</td>
<td>$12,280</td>
<td>124%</td>
</tr>
<tr>
<td>CHF</td>
<td>$9,770</td>
<td>1.3%</td>
<td>40%</td>
<td>$17,200</td>
<td>76%</td>
</tr>
<tr>
<td>Migraine</td>
<td>$4,340</td>
<td>8.2%</td>
<td>43%</td>
<td>$10,810</td>
<td>149%</td>
</tr>
<tr>
<td>COPD</td>
<td>$3,840</td>
<td>8.2%</td>
<td>38%</td>
<td>$10,980</td>
<td>186%</td>
</tr>
</tbody>
</table>

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Cartesian Solutions, Inc.™ -- consolidated health plan claims data
Depressive Disorder due to Medical Conditions/Substances (including medications)

- **DSM-V 292.84 Substance/Medication-Induced Depressive Disorder**
  - Prominent and persistent period of depressed mood oranhedonia
  - Evidence the symptoms was associated with a substance known to cause mood symptoms
  - Not better explained by another mental disorder
  - Doesn’t occur exclusively during the course of a delirium
  - Causes impairment in social, occupational, or other areas of function

- **DSM-V 293.83 Depressive Disorder due to Another Medical Condition**
  - Prominent and persistent period of depressed mood or anhedonia
  - Evidence the syndrome is direct pathophysiological consequence of another medical condition
  - Not better explained by another mental disorder
  - Doesn’t occur exclusively during the course of a delirium
  - Causes impairment in social, occupational, or other areas of function

American Psychiatric Association: DSM-V, 2005
Depression as a risk factor for the development of medical illness

<table>
<thead>
<tr>
<th>Medical Illness</th>
<th>Depression increases risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary artery disease</td>
<td>1.5-2 fold</td>
</tr>
<tr>
<td>Stroke</td>
<td>1.8 fold</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>4-6 fold</td>
</tr>
<tr>
<td>Alzheimers</td>
<td>2.1 fold</td>
</tr>
<tr>
<td>Diabetes type II</td>
<td>60%</td>
</tr>
</tbody>
</table>

Ramasubbu, Annals of Clinical Psychiatry 2/2012
## Depression as a Risk Factor for Poor Medical Outcomes

<table>
<thead>
<tr>
<th>Medical Illness</th>
<th>Depression increases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coronary artery disease</td>
<td>Cardiac mortality by 3.5 to 4 fold and predicts poor prognosis in patients with pre-existing coronary disease</td>
</tr>
<tr>
<td>Stroke</td>
<td>Mortality by 3.4 fold and adversely affects functional recovery</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>Burden from seizures and decreases quality of life</td>
</tr>
<tr>
<td>Cancer</td>
<td>Mortality by 2.6 fold</td>
</tr>
<tr>
<td>Diabetes type II</td>
<td>Earlier onset of vascular complications, functional disability, and death</td>
</tr>
<tr>
<td>HIV</td>
<td>Illness progression to AIDS and higher mortality rates</td>
</tr>
</tbody>
</table>

Ramasubbu, Annals of Clinical Psychiatry 2/2012
General treatment recommendations for patients with depression and comorbid medical illness

• Treat both depression and medical illness simultaneously
  • Care management with motivational interviewing
  • Exercise and behavioral activation effective for both disorders

• Drug-Drug interactions

• Drug-Illness interactions: examples
  • Negative: Tricyclic antidepressants in patients with arrhythmias
  • Positive: Tricyclics for patients with migraines
The Canadian Network for Mood and Anxiety Treatments (CANMAT) task force recommendations for the management of patients with mood disorders and select comorbid medical conditions

Rajamannar Ramasubbu, MD, FRCPC, MSc
Valerie H. Taylor, MD, PhD, FRCPC
Zainab Saaman, MD, PhD, FRCPC
Sanjeev Sockalingham, MD, FRCPC
Madeline Li, MD, PhD, FRCPC
Scott Patten, MD, PhD
Gary Rodin, MD, FRCPC
Ayal Schaffer, MD, FRCPC
Serge Beaulieu, MD, PhD, FRCPC
Roger S. McIntyre, MD, FRCPC

BACKGROUND: Medical comorbidity in patients with mood disorders has become an increasingly important clinical and global public health issue. Several specific medical conditions are associated with an increased risk of mood disorders, and conversely, mood disorders are associated with increased morbidity and mortality in patients with specific medical disorders.

METHODS: To help understand the bidirectional relationship and to provide an evidence-based framework to guide the treatment of mood disorders that are comorbid with medical illness, we have reviewed relevant
Depression Treatment for patients with Specific Medical Illnesses I

• Cardiovascular disease
  • Screen all patients for depression, treat both at the same time
  • 1st line SSRIs, SNRIs
  • CBT, IPT, PST all shown effective

• Stroke
  • 1st line citalopram, nortriptyline, avoid antipsychotics. Simulants some value.
  • Motivational interviewing and PST 1st line therapy
Depression Treatment for patients with Specific Medical Illnesses II

• Cancer
  • Mixed results antidepressants, all appear equally effective
  • Pick based on patient characteristics, avoid drug-drug interactions
  • Choice of psychotherapy based on patient needs

• Diabetes
  • Best data for effectiveness of SSRIs
  • Consider bupropion for lack weight gain and sexual dysfunction
  • SNRI with diabetic neuropathy
  • CBT and exercise
Depression Treatment for patients with Specific Medical Illnesses III

• HIV
  • 1\textsuperscript{ST} Line SSRIs especially escitalopram and citalopram
  • Stimulants have some value
  • Avoid HAART medications that induce depression
  • CBT, IPT, effective

• Migraine
  • Limited controlled data. Best data amitriptyline. SSRIs and SNRI can be effective but may increase headaches.
  • Some medications like valproate may help both.
  • CBT and biofeedback
Depression Treatment for patients with Specific Medical Illnesses III

- Multiple Sclerosis
  - Pseudobulbar affective changes may look like depression, hypomania and mania common
  - Best data SSRIs, avoid sedating or anticholinergic medications
  - Psychotherapies that focus coping strategies > focus on insight

- Epilepsy
  - Be aware of drug-drug interactions
  - Avoid antidepressants that lower seizure threshold such as bupropion
  - SSRIs 1st line, lamotrigine may help both
  - CBT best studied psychotherapy
Conclusions

• Avoid the belief that depression is an expected and unavoidable consequence of serious medical illness

• Mood disorders and medical illness have bidirectional relationship

• If possible treat depression and medical illnesses simultaneously. Individualize based on comorbidity

• Consider second opinions from colleagues

• Never give up
Depression increases the risk of cardiovascular disease by:

A. 50%
B. 100%
C. 150-200%
D. 300%
E. No increased risk