Overview/Objectives

• Focus on:
  • Depression
  • Dementia

• Touch upon:
  • Anxiety
  • Substance use
  • Sleep

Case: Mrs M.

• 78 year old woman
• Summary of referral: “Sad old lady lives alone”
• Depression and anxiety
• Sleep changes: “Nightcap”
• Forgetfulness
• Medical issues: hypertension, elevated cholesterol, DM Type 2

The Demographic Imperative

• 15% of US population age 65+; expected to increase up to 22% by 2050

• 18-28% of the older adult population has significant psychiatric symptoms
  – This adds up to 9-13 million older Americans
  – 1600 geriatric psychiatrists in the US
  – 1:5600-6900

Later-Life Depression

• Depressive symptoms present in 8-16% of community adults

• MDD in the community is low 1-2% (lower than younger ages)

• First onset of depression after age 60 is common, about 50% of all episodes in older adults

• Prevalence increases with medical complexity

Prevalence of later-life depression by health/independence status

Adapted from Reynolds: Depression in later life: is it time for prevention?
LLD Creates Problems

- Causes individual suffering
- Increases health care costs
- Independent risk factor for death
- Causes baseline function to worsen
- Decreased motivation
- Poor adherence
- Predisposes to dementia
- 1.5-4x risk

Risk Factors for Later-Life Depression

- Prior history
- Family history
- Medical illness/illness burden
- Psychosocial changes/poor social support
- Caregiver burden

A Word about Caregiving

- Caregivers are 2x as likely as non-caregivers to develop depression
- Spousal caregivers that experience emotional strain are significantly more likely to die than non-caregivers
- Exacerbating factors:
  - Caring for a person with behavioral symptoms of dementia
  - Receipt of limited help from others

What does LLD look like?

- Decreased energy
  - May be hard to distinguish from that caused by other illness
- Motor agitation (pacing/fidgeting) or retardation (feeling slowed)
- Decreased concentration
  - Forgetfulness; may be hard to distinguish from early dementia
- Guilt/worthlessness
- Suicidal ideation
- Worsened physical or pain symptoms

YOU DON'T HAVE TO FEEL SAD TO BE DEPRESSED!!!!!
Bereavement
- In first 2 yrs of widowhood, distress is common
- After year 2, 14% of bereaved have MDD
  - Subsyndromal symptoms more common
- Therapy helps most with subsyndromal sx
- Treat with meds if severe symptoms:
  - Thoughts of death
  - Greatly impaired functioning

Medical Comorbidity with Depression
- Cardiac disease
  - ~20% of cardiac patients
  - Post-MI patients with depression have significantly higher death rates
- Diabetes
  - 12% MDD, 9-30% Depressive sx
  - Post CVA
  - 20-50% (50% with vascular dementia have MDD)
- Neurodegenerative illnesses
  - 20-40% of Parkinson’s patients
  - ~20% of Alzheimer’s patients

Differential Diagnosis of Geriatric Depression
- Dementia
- Substance abuse
- Prescription meds
- Endocrine d/o
- Metabolic d/o
- Neoplasms
- Infections
- Other mood disorder
- Days-Weeks
  - DELIRIUM
- Weeks-Months
  - DEPRESSION
- Months-Years
  - DEMENTIA

2013 Suicide Rates in US—Age, Race, and Gender

Later-Life Depression and Suicide
- Older white men have the one of the highest suicide rates
  - 5-6X the rate of the general population
  - 6000 older adults commit suicide each year
  - 17 per day
  - 1 every 84 minutes
- Majority had seen a primary care physician in the last month of life
  - 39% in the last week ---> Always ask!
- Most suicidal patients have a diagnosable depression

Suicide Risk Factors
- Depression
- Substance abuse/dep
- Physical decline
- Physical illness
- Terminal illness
- Pain
- Loss of independence
- Economic problems
- Social isolation
- Retirement difficulties
- Loneliness-1/3 report
- Recent loss of significant other
- Anxiety
Later-Life Depression and Cognition

- Depression and cognitive problems "travel" together
- Non-demented elderly with depression often have difficulty with concentration, speed of mental processing and executive function
  - Many of these symptoms may subside with treatment, but can be an early manifestation of a more permanent disorder
- Depression may either be a prodrome of dementia or a risk factor for it

Later-Life Depression is Treatable!

- 60-70% improve with medications
- Reduces suffering
- Restores optimal level of function and independence
- Decreases health care costs

Treatment of Mood Disorders

Non-Pharmacologic

- Optimizing treatment of medical conditions
- Shoring up social supports
- Increasing activity
- Religion/Spirituality
- Therapy helpful for mild-moderate depression especially if life stressors

Evidence-Based Psychotherapy for Later-Life Depression

- Cognitive Behavioral Therapy
  - Focus on faulty perceptions, pessimistic predisposition; use of homework and behavioral activation
- Problem-Solving Therapy
  - Helpful for patients with executive dysfunction; pragmatic focus, solutions elicited from patient
- Interpersonal Therapy
  - Present-oriented, focus on interpersonal conflict, role changes

Start Low, Go Slow, Don’t Stop! (particularly in anxious patients)

- Start Low
  - 1/4-1/2 the usual starting dose for younger adults
  - If anxious, or older, but work it up as tolerated.
- Go Slow
  - If minimal improvement, increase q6-8 weeks
- Don’t Stop
  - If needed for symptom resolution, get to near-max doses
- Be Patient
  - Up to 12 weeks for anxiety

Treatment Duration

- Single episode
  - 6-9 months after remission, taper slowly
- Recurrent or psychotic/severe
  - 3 strikes and you’re on!
- Continuing treatment prevents relapse
SSRIs
• Mechanism: Block reuptake of 5-HT
• First line treatment, safer in overdose
• Common Side Effects:
  - GI upset, usually transit
  - Headache
  - Sexual side effects
  - "Early activation"
  - Discontinuation syndrome

SSRIs
• Indications for depression and many anxiety d/o
  *Sertraline (Zoloft) start 25, range 50-250
  *Citalopram (Celexa) start 10, range 10-20
  *Escitalopram (Lexapro) start 5, range 10-20
  Paroxetine (Paxil) start 10, range 10-50
  Fluoxetine (Prozac) start 10, range 10-120
  Fluvoxamine (Luvox) start 25, range 50-300

SNRIs
• Mechanism: 5-HT and NE reuptake blockade
• Duloxetine (Cymbalta) start 20, range 20-120
• Venlafaxine (Effexor) start 37.5, range 75-375
• Desvenlafaxine (Pristiq) start 50, range 50-100
• More activation
• Increase in diastolic BP
• Withdrawal syndromes
• Indication for chronic pain

Bupropion (Wellbutrin)
• Mechanism: NE>>DA
• Fewer sexual SE, less weight gain
• Risk of seizures
• Agitation, insomnia, confusion, tremor
• Smoking cessation
• Variable dosing formulations- SR, XL
• Start 100-150 mg, range 100-450 mg

Mirtazapine (Remeron)
• Mechanism: NE/5-HT, some alpha blockade
• Prominent histamine 1 blocker
• Sedation, weight gain are benefits (or SE)
• 5-HT3 antagonist – anti-nausea effects
• Few sexual side effects
• Start 7.5 mg, range 15-60 mg (inverse dose response curve)
• 0.1% incidence of neutropenia

Transcranial Magnetic Stimulation
• Need for treatments that preserve cognition and reduce polypharmacy
• TMS is safe and very well-tolerated
• With current protocols, about 50% attain response (about half of which attain remission)
• Brain-related changes of aging may alter how TMS reaches the cortex and impact treatment response
• New optimized protocols hold promise for the treatment of later-life depression (targeting specific regions or altering sessions/pulse count)
Electroconvulsive Therapy (ECT)

• Safe, effective, most rapid treatment for depression and mania- up to 85% response
• Indications:
  - Failure of medications
  - Intolerance of medications
  - Cannot wait for medication trial, acute suicidality, catatonia
• Mortality rate 1/10,000; usually cardiac

Case

• 78 year old woman
• Depression and anxiety
  - GCS of 10, passive suicidal ideation
  - Generalized anxiety
• Sleep changes: “Nightcap”
  - Shot before bed to help her fall asleep; middle awakening
• Forgetfulness
  - MOCA of 25
• Medical issues:
  - Abnormal TSH
• Psychosocial: rich life tapestry; bereavement; good candidate for psychotherapy

Dementia and BPSD

• Devastating syndrome affecting 5 million people in US, 16 million by 2050
• Non-cognitive behavioral and psychological symptoms of dementia (BPSD) are universal (>98%)
  • Can occur at any disease stage
  • Occur with every type of dementia
  • Often dominate the disease course
  • Associated with poor outcomes
  • Role of the family caregiver is critical

Antipsychotic use has declined—but does that mean that fewer people with dementia are being medicated with psychiatric drugs?

• Programs such as CMS’ National Partnership have driven down nursing home AP use
• Unintended consequences?: Shift to other psychotropics with less evidence of benefit and similar risks?

Consequence of neurodegeneration associated with dementia

1. Creates an increased vulnerability to stressors
2. Stressors include patient, caregiver and environmental factors
3. No one-size-fits-all solution
4. Need for personalization and precision

Does how we treat behaviors currently make sense?
Non-pharmacologic approaches: best evidence

- Behavioral, environmental, and caregiver supportive interventions that have a growing evidence base
- Most significant evidence base for caregiver interventions that train caregivers to:
  - Use problem-solving skills to manage behaviors
  - Increase tailored activity for the person with dementia
  - Enhance communication in the dyad
  - Reduce environmental complexity
  - Simplify tasks for the person with dementia

The DICE Approach

- Program for Positive Aging organized and funded a 2011 meeting of national experts across disciplines
  - Consider possible etiologies
  - Include caregiver in process
  - Integrate pharmacologic and non-pharmacologic
  - Build in flexibility to use in various care settings
  - Goal to avoid knee-jerk prescribing without assessment of underlying causes

- *We need to better PACKAGE non-pharmacologic approaches*

Kales, Gitlin, Lyketsos JAGS 2014

How does DICE differ from other approaches out there?

- Approach is algorithmic
  - Simple but elegant
  - Designed to be easy to remember and to help create “good habits”
- Integrates pharmacologic and non-pharmacologic approaches
- Expands the discussion of medications beyond psychiatric medications to other medications (for pain, infection, constipation, etc)
- Strategies are tailored to the PWD, caregiver and environment

Case: Mrs. M.

- 85 year old woman
- Now with dementia
  - MoCA 18
  - Neuropsychological testing consistent with a neurodegenerative process
- Family calls that patient is getting “agitated” at home; “Can you give her something to calm down”

DESCRIBE

- Full and accurate description of the behavior
- Critical step often left out
  - Do we treat “shortness of breath” with antibiotics without history, physical or labs?
- Full description leads to underlying cause possibilities
- Clinical scenario: Mrs. M with “agitation”
- Learn to “play it back like a scene from a movie”

Who? When? Where? What?
**DESCRIBE the problem behavior**

Mrs. M:
- "Agitation": moved into daughter’s home recently. Asking the same questions over and over. Gets anxious about upcoming appointments. Starts to follow daughter all over the house.

Family:
- Approaches Mrs. M in haste; overburdened
- Confrontational/negative tone: "I already told you that you have your doctor’s appointment tomorrow!"

Environment
- No structure to the day.
- No activities.
- Mrs. M. mostly sitting in chair watching TV.

**INVESTIGATE**

- Another "left out" step
- This step is led by the clues from DESCRIBE
- Play "detective" to search for underlying causes/triggers of behavioral symptoms
- Triggers often come from 1 of 3 categories

**Patient Factors**

<table>
<thead>
<tr>
<th>Problem</th>
<th>What you might notice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>Making or unmaking bed</td>
</tr>
<tr>
<td></td>
<td>Tissue</td>
</tr>
<tr>
<td>Constipation</td>
<td>Pain and difficulty opening bowel to void</td>
</tr>
</tbody>
</table>
| Urinary Tract Infection | Urinating
|                  |-frequency |
| Recent changes in medication | Drug changes in long-standing medications |

**Caregiver Factors**

- "Doing this on purpose"
- Reacting harshly
- Offering too many choices
- Expecting more than possible
- Feeling stressed, anxious, depressed
- Family, facility or cultural expectations

**Environmental Factors**

**INVESTIGATE underlying causes**

Mrs. M:
- Past history of depression/anxiety; not currently depressed
- Anxious component
- Ditropan for incontinence; anticholinergic effect? (confusion)
- Type II Diabetes; are blood sugars under control?
- Is safety at risk?

Family:
- Communication is not optimal (negative tone, critical, confrontational)
- Lack of education about dementia stages (multistep commands)
- Is safety at risk?

Environment
- Lack of structure
- Lack of personalized activities
- TV on

**CREATE-Six general strategies**

- Manage any physical problems
- Provide family/staff education/support
- Improve communication
- Create meaningful and tailored activities
- Simplify tasks
- Ensure the environment is safe

**Create/Implement collaborative treatment plan**

Mrs. M:
- Consider replacing Ditropan with a more bladder-selective agent
- Low blood sugars pre-meal could be triggering irritability; schedule snack if lunch is late
- Hold on increasing antidepressant for anxiety to see if non-pharmacologic strategies could work

Family:
- Psychoeducation on dementia stages and simplifying communications
- Offer choices but limited
- "Playing the role": go with the affect (embrace)
- Inform of events as they occur; use of a calendar or white board
- Change tone (replacing negative, critical, confrontational tone); calm touch
- "Set the stage" for activities with communication

Environment
- Structure
- Increase the amount of natural light in the room for cuing
- TV may overstimulate
- Create activities tailored to interest/abilities
What medications are approved by the US Food and Drug Administration for dementia behaviors?

- **NONE!**
- All use of psychiatric medications in dementia is "off label"
- Drugs are approved and "labeled" by the FDA after being rigorously tested for specific uses
- Off-label use means using a drug that is approved for one condition, for another condition that it is not approved for

Safety first!

- Always assess safety as part of the DESCRIBE step!
- If anyone's safety is at risk, call the doctor immediately
- Psychiatric medications as a first-line therapy in THREE cases
  - Major (clinical) depression with or without suicidal thoughts
  - Aggression with risk of harm to self or others
  - Psychosis with risk of harm to self or others
- Note: People with chronic mental illness

Goal of the DICE Approach

- Avoid the "knee-jerk" use of medications without assessing the possible underlying causes
- Knee-jerk medication use ("agitation"=Risperdal) causes many problems
  - Worsening of symptoms
  - Ignoring the underlying cause (pain, urinary tract infection)
  - Unnecessary sedation and other side effects (including falls, worsened memory)
  - Worsened quality of life
  - Death

Evaluate the interventions

**Mrs. M.**
- Did a new bladder medication impact behavior?
- Did stabilizing blood sugars impact behavior?

**Family:**
- Was calendar or white board implemented?
- Were family members able to improve the quality of communication?
- Tone; avoiding confrontation; simplification; informing of events as they occur; playing the "role" of a calm caregiver; "going with" the affect

**Environment:**
- What new activities were created and what impact?
- Was adding structure to the day helpful?
- What impact did improving lighting have?

Risk/Benefit

- Off-label use of medication is not necessarily a bad thing (e.g. rare diseases and cancer)
- However, with psychiatric medications in dementia, there is no FDA indication because the risks (many side effects and even death) outweighs the benefits (modest efficacy at best) in many cases
- "The DICE Approach does not prohibit medications*
- But rather, we encourage careful consideration of the risks and benefits in EVERY case
Consider the following....

- Be careful not to medicate the distress of
  - The caregiver/family
  - The staff at facilities
  - Yourself!

- Consider whether the "science-based" pharmacologic approach (e.g. dopamine receptor blockade of antipsychotics) is really the most evidence-based and patient-centered.

- Medications do NOT treat: repetitive questions; wandering; unfriendliness; poor self-care.

Last overview thoughts about DICE and medications

- Avoid knee-jerk use of psychiatric medications.
- Rather use a targeted approach to medications

- Expand the consideration of "medications" with behavior to non-psychiatric medications
  - Pain control
  - Antibiotics for infections
  - Bowel regimens for constipation

- Patients need to be told to never stop medications without consulting the prescribing provider

Commonly used medications

- **Memory medications**: symptomatic improvement of memory but have been touted as helpful to improve behavior

<table>
<thead>
<tr>
<th>Medication</th>
<th>Benefit</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donepezil</td>
<td>Non-alzheimer's dementia</td>
<td>Memory improvement</td>
</tr>
<tr>
<td>Rivastigmine</td>
<td>Non-alzheimer's dementia</td>
<td>Improved memory</td>
</tr>
<tr>
<td>Memantine</td>
<td>Alzheimer's dementia</td>
<td>Gait, balance problems</td>
</tr>
</tbody>
</table>

Commonly used medications-II

- **Antidepressants**: used for depression, anxiety and agitation in dementia

<table>
<thead>
<tr>
<th>Medication</th>
<th>Benefit</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambien</td>
<td>Sleep disturbances</td>
<td>Sedation, confusion</td>
</tr>
<tr>
<td>Paxil</td>
<td>Depression treatment</td>
<td>Headache, nausea</td>
</tr>
<tr>
<td>Prozac</td>
<td>Depression treatment</td>
<td>Nausea, vomiting</td>
</tr>
</tbody>
</table>

Commonly used medications-III

- **Benzodiazepines**: anti-anxiety and sleeping medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Benefit</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valium</td>
<td>Anxiety relief</td>
<td>Dizziness</td>
</tr>
<tr>
<td>Ativan</td>
<td>Anxiety relief</td>
<td>Headache</td>
</tr>
<tr>
<td>Xanax</td>
<td>Anxiety relief</td>
<td>Nausea</td>
</tr>
</tbody>
</table>

Commonly used medications-IV

- **Antipsychotics**: the only medication with some good but modest evidence of efficacy, BUT....

<table>
<thead>
<tr>
<th>Medication</th>
<th>Benefit</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haloperidone</td>
<td>Agitation control</td>
<td>Increased blood pressure</td>
</tr>
<tr>
<td>Risperidone</td>
<td>Agitation control</td>
<td>Sedation</td>
</tr>
</tbody>
</table>

Last overview thoughts about DICE and medications

- Avoid knee-jerk use of psychiatric medications.
- Rather use a targeted approach to medications

- Expand the consideration of "medications" with behavior to non-psychiatric medications
  - Pain control
  - Antibiotics for infections
  - Bowel regimens for constipation

- Patients need to be told to never stop medications without consulting the prescribing provider
Commonly used medications-V
• **Mood stabilizers**: used for seizure disorders and bipolar disorder but have also been used for behavior in dementia

<table>
<thead>
<tr>
<th>Medication</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depakote/valproic acid</td>
<td>• Research trials have not shown improvement in behaviors</td>
</tr>
<tr>
<td>Tegretol/carbamazepine</td>
<td>• Some evidence that it may be helpful for agitation</td>
</tr>
<tr>
<td>Gabapentin</td>
<td>• No evidence from research trials of benefit</td>
</tr>
</tbody>
</table>

Sleep
• People with dementia often have trouble with sleep
• Always try non-medication routes FIRST as most sleep medications have significant side effects (ESPECIALLY FALLS!)
• Use DICE to figure out the underlying cause of sleep problems
  • Pain
  • Napping during the day
  • Caffeine
  • Not enough daytime activity or exercise
  • Lack of established routines
  • Lack of enough natural light

Summary
• Depression and dementia are the most common later-life psychiatric syndromes
• Later-life depression may present differently than in earlier life but is highly treatable
• Behavioral and environmental approaches are first-line treatments for behavioral disturbances in dementia

Use a night light
Create a quiet bed-time routine
Calming music
Evaluate environment and remediate temperature, noise, light, shadows, or other possible disturbances

If all non-medication routes have failed, and the caregiver is losing sleep, consider a trial of:
• low-dose trazodone (25-50 mg)
• mirtazapine (7.5 mg)
• Melatonin

NO BENZOS