We have no conflicts of interest to disclose.

There are no FDA approved medications for the treatment of agitation in dementia and hence all medications discussed today are “Off Label” in their use.

Disclosures

Index

Describe 4 classic cases seen in geriatric psychiatry

Demonstrate the differences in presentations of various psychiatric disorders in the elderly

Describe the evaluation of patients with psychiatric disorders in the elderly

Define the role of the multidisciplinary team in the continuum care of a geriatric psychiatric patient

Questions and Answers
Mrs. E is a 71 year old married Caucasian woman.

She was admitted on a Physician’s Emergency Certificate (PEC) for worsening delusions, hallucinations, poor appetite and refusing medications.

This is Mrs. E’s 4th psychiatric hospitalization since May 2010.

She was initially hospitalized for delusions and hallucinations.

Mrs. E’s symptoms first started when she was 68 years old with delusions.

A thorough work up including an MRI scan of the brain was normal.

Mrs. E had a difficult childhood with poor relation with her mother.

She graduated high school and completed some college courses.

Mrs. E had a daughter out of wedlock at 18 years who was given up for adoption. This daughter has recently been in touch with Mrs. E.

She was well respected as the finance director for a school district and was on various town boards.

Mrs. E was forced into retirement 3 years ago due to town politics.

She has been married for 50 years; and has one son from this marriage.
Mrs. E’s medical history is significant for HTN, CAD, MI, Coronary angioplasty and GERD.

She had no premorbid psychiatric illnesses or substance abuse history.

Mrs. E scored 27/30 on the MMSE. Her Clock drawing was good. The EXIT score was 4/30 indicating good executive functioning. She scored 2/15 on the GDS indicating that she is not clinically depressed.

She needed to have an involuntary medication hearing.

Mrs. E had a conservator of person and estate appointed.

Mrs. E failed trials of Abilify and Zyprexa.

She was eventually treated with Haldo andCogentin.

Mrs. E was given a diagnosis of Schizophrenia, very late onset, paranoid type.

She was discharged to a rest home after 118 days in the hospital.

Mrs. E was in the psychiatric unit for a total of 194 days in the last 18 months.

Out of the 194 days, the insurance company refused to pay for 178 days.

Case II
Alzheimer’s Disease
(Dementia)
Mrs. S is a 57 year old married white woman of Italian origin. She was admitted on a PEC for severe agitation, poor sleep, poor appetite and a 40 lbs weight loss over 2 months. Mrs. S was very agitated prior to admission. She need to be restrained by 4 EMTs and given Haldol 4 mg IM stat followed Abilify 2.5 mg IM stat. She has a diagnosis of Alzheimer’s disease since the Summer of 2006. Mrs. S does not have any premorbid psychiatric history or substance abuse. Her MMSE in March 2008 was 11/30, on the severe MMSE she was 27/30 and on the EXIT she was 25/30. Her GDS was 3/15. Mrs. S’s last severe MMSE in December 2008 was 19/30.

Mrs. S had been treated with Aricept, Namenda, Remeron, Seroquel, Ativan, Risperdal and Trazodone. She had no on going medical issues. Mrs. S was a FAST Stage 7B indicating severe dementia. Her hospitalization was characterized by the need for 1:1 observation and several episodes of severe agitation requiring Abilify IM injections. She was discharged on Abilify 20 mg/day, Remeron 30 mg/day, Trazodone 200 mg/day, Aricept 10 mg/day, Namenda 20 mg/day.

Mrs. S was discharged home after a 27 day hospital stay.

Case III

Chronic mental illness progressing into late life

(Depression, Anxiety, Nicotine Dependence, Benzodiazepine Dependence, Personality Disorder, NOS)
Mrs. W is a 69 year old Caucasian woman.

She has been widowed for the past 3 years.

Mrs. W was admitted to the hospital on PEC for her inability to care for self and increasing confusion.

Her primary care doctor disagreed with psychiatric evaluation at the ER and placed the patient on a PEC.

Mrs. W failed placement at senior housing even with maximum services by the area agency on aging.

Mrs. W has a long history of depression, anxiety, alcohol abuse, benzodiazepine abuse, nicotine dependence and personality disorder.

She has no history of previous psychiatric hospitalizations, suicidal, homicidal behaviors or legal issues.

She has failed trials of Seroquel, Trileptal, Xanax, among others.

Mrs. W also had a history of COPD, DM, HTN, GERD, seizures, pneumonia, bronchitis, osteoporosis, hepatitis, hepatic encephalopathy, B/L hip fractures.

Mrs. W has poor family relations; her oldest son who is a pediatrician in Utah does not talk to her. Daughter who is youngest has similar problems as the patient. Middle son is more involved.

Mrs. W’s hospital stay was characterized by poor impulse control, accusatory behaviors, attention seeking/demanding, medication seeking and with frequent medical issues.

The treatment team had to institute a behavioral treatment plan for safety and to prevent caregiver burnout.

We had a meeting with the VNA to clarify safety issues in the community.

Mrs. W signed in as a voluntary patient.
Mrs. W also had a conservator of person and estate appointed.

Her MMSE score was 29/30 and GDS was 5/15.

Mrs. W had multiple psychotropic medication trials: Xanax was discontinued, Zyprexa was tried but failed.

The final combination of medications was Zoloft 200 mg/day, Abilify 20 mg/day, Depakote 1500 mg/day, Neurontin 600 mg/day, Trazodone 200 mg/day.

She was discharged to a SNF.

Mrs. W was admitted twice and spent a total of 70 days in the hospital.

Mr. K is a 92 year old married Caucasian man.

He was admitted on a PEC from his nursing unit for worsening mood lability, paranoia, verbal aggression and physical aggression.

Mr. K is a retired Marine instructor.

He has a history of Bipolar disorder, alcohol abuse and a recent diagnosis of Dementia, NOS.

This is Mr. K’s 4th Psychiatric hospitalization and the second admission within the past 4 months.

He has a history of atrial fibrillation, HTN, S/P CVA, hyperlipidemia and kidney stones.
Mr. K has a history of difficult relations with his wife and two daughters.

He scored 20/30 on the MMSE, his clock drawing was incorrect and he scored 3/30 on the GDS. He was Stage 6D on the FAST indicating moderately severe dementia.

Mr. K’s hospitalization has been characterized by fluctuating moods, episodes of severe agitation requiring IM medications, inappropriate sexual behaviors needing 1:1 observation and varying medication compliance.

He is currently on lithium 900 mg/day, Depakote 750 mg/day and Seroquel 200 mg/day.

Mr. K is awaiting involuntary medication hearing.

He has spent a total of 100 days in the hospital in the last 4 months.

Currently, 35 million or 13% of the population of US is 65 years or older.

4 million or 1.6% of the US population is older than 85 years.

4.5-5% of over 65 years live in nursing homes.

50% of nursing home residents are over 80 years in age.
• 58% of elderly are women
• 84% are Caucasian
• 8% are African-American
• 6% are Hispanics
• 2% are Asian
• By 2050 the % of Caucasians will reduce to 64% and the % of African Americans and Hispanics will increase to 12% and 16% respectively.

Common Psychiatric Conditions

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s Disease</td>
<td>5% to 10% of population over 65</td>
</tr>
<tr>
<td></td>
<td>25% to 40% of population over 85</td>
</tr>
<tr>
<td>Anxiety Disorders</td>
<td>5% to 15%</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>0.2% to 0.5%</td>
</tr>
<tr>
<td>Delirium</td>
<td>1% to 60%</td>
</tr>
<tr>
<td>Depressive Disorders</td>
<td>2% to 12%</td>
</tr>
<tr>
<td>Personality Disorder</td>
<td>3% to 62%</td>
</tr>
<tr>
<td>Psychotic disorder</td>
<td>16% to 23%</td>
</tr>
<tr>
<td>Substance abuse/dependence</td>
<td>Men: 0.12%  Women: 0.06%</td>
</tr>
</tbody>
</table>

History

• Presentation
  ❖ Acute, sub-acute or chronic
  ❖ Progressive, stepwise, fluctuating?
  ❖ Associated symptoms?
  ❖ Comorbid substance use?
  ❖ Comorbid personality issues?

• Functional status (Activities of Daily Living)
  ❖ Basic ADL’s: Dressing, Eating, Ambulation, Toileting, Hygiene
  ❖ Instrumental ADL’s: Shopping, Housework, Accounting, Food preparation, Transportation/Telephone
• Past Psychiatric History
  ◦ First onset or exacerbation of pre-existing condition

• Past Medical History
  ◦ Cardiovascular, Cerebrovascular or Endocrine disorders

• Current Medications
  ◦ List of psychoactive drugs
  ◦ Potential drug-drug interactions

• Family History
  ◦ Present or absent?
  ◦ Type of illness
  ◦ Response to medications

• Social History
  ◦ Educational and occupational background
  ◦ Recent changes in social or living environment
  ◦ Recent loss of spouse

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**Mental Status Examination**

- Appearance and Behavior
- Speech
- Affect and Mood
- Thought Process
- Thought Content
- Perceptual Disturbances
- Suicidal or Homicidal Thoughts or Plans
- Cognitive Testing
- Insight and Judgment
  ◦ Does the patient believe he/she is ill?
  ◦ What do they think is wrong?
  ◦ How should the condition be treated?
  ◦ What will happen if the condition is not treated?

---

**Cognitive Testing**

- Orientation
- Attention and Concentration
- Registration and Recall
- Speech
- Praxis
- Executive Functions
  ◦ Organizing, Initiating, Sequencing, Planning, Abstraction and Response Inhibition
  ◦ Tests: Clock Drawing, Executive Interview (EXIT)
# Common Standardized Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Function</th>
<th>Low Score</th>
<th>High Score</th>
<th>Higher Score Means</th>
<th>Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSE</td>
<td>Cognition</td>
<td>0</td>
<td>30</td>
<td>Better cognition</td>
<td>Patient</td>
</tr>
<tr>
<td>EXIT</td>
<td>Executive functions</td>
<td>0</td>
<td>30</td>
<td>Presence of executive dysfunction</td>
<td>Patient</td>
</tr>
<tr>
<td>GDS</td>
<td>Depression</td>
<td>0</td>
<td>15</td>
<td>Clinically significant depression</td>
<td>Patient</td>
</tr>
<tr>
<td>FAST</td>
<td>Global functions</td>
<td>1</td>
<td>7</td>
<td>Poorer functioning</td>
<td>Patient and Caregiver</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale</th>
<th>Assess</th>
<th>Low Score</th>
<th>High Score</th>
<th>Higher Score Means</th>
<th>Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADCS-ADL</td>
<td>Activities of Daily Living</td>
<td>0</td>
<td>78</td>
<td>Better ADL performance</td>
<td>Caregiver</td>
</tr>
<tr>
<td>ADAS-Cog</td>
<td>Cognition</td>
<td>0</td>
<td>70</td>
<td>Worse cognition</td>
<td>Patient</td>
</tr>
<tr>
<td>BGF</td>
<td>Cognition, Function, Behavior</td>
<td>0</td>
<td>70</td>
<td>Worse function</td>
<td>Patient</td>
</tr>
<tr>
<td>CGI-C</td>
<td>Global change</td>
<td>1</td>
<td>7</td>
<td>Global worsening</td>
<td>Patient and Caregiver</td>
</tr>
<tr>
<td>CIBIC-Plus</td>
<td>Global change</td>
<td>1</td>
<td>7</td>
<td>Global worsening</td>
<td>Patient and Caregiver</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale</th>
<th>Assess</th>
<th>Low Score</th>
<th>High Score</th>
<th>Higher Score Means</th>
<th>Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>Global functions</td>
<td>1</td>
<td>7</td>
<td>Poorer functioning</td>
<td>Patient and Caregiver</td>
</tr>
<tr>
<td>MoCA</td>
<td>Cognition</td>
<td>0</td>
<td>30</td>
<td>Better cognition</td>
<td>Patient</td>
</tr>
<tr>
<td>NPI</td>
<td>Neuropsychiatric symptoms</td>
<td>0</td>
<td>146</td>
<td>Greater disturbance</td>
<td>Patient</td>
</tr>
<tr>
<td>SIB</td>
<td>Cognition</td>
<td>0</td>
<td>100</td>
<td>Better cognition</td>
<td>Patient</td>
</tr>
<tr>
<td>SLUMS</td>
<td>Cognition</td>
<td>0</td>
<td>30</td>
<td>Better cognition</td>
<td>Patient</td>
</tr>
</tbody>
</table>
Physical Examination

- Sensory impairments
  - Vision and Hearing
- Endocrine
  - Thyroid, Liver, Pancreas, Adrenal
- Cardiovascular
  - Arrhythmias, Cardiac Failure, Myocardial infarction
- Neurological
  - Focal neurologic deficits
  - Gait difficulties
  - Pathologic reflexes

Laboratory Workup

- CBC with differential: Anemia, Infections
- BUN/Cr, Electrolytes: Dehydration, Renal failure
- Thyroid Function Test: Hyper or Hypothyroidism
- Liver Function Test: Liver failure
- Vitamin B12 and Folic acid levels: Nutritional deficiencies
- RPR or VDRL: Syphilis

- UA/CS: Urinary Tract Infection
- Urine toxicology screen: Substance abuse
- HIV, ANA: AIDS and Inflammatory disease
- EKG: Cardiac arrhythmias
- Chest x-ray: Infections, Cancer
- Lumbar puncture: Meningitis, Subarachnoid hemorrhage
Neuroimaging (CT/MRI):
- Acute onset/atypical presentation
- H/O trauma
- Focal neurologic findings, abnormal gait
- R/O NPH, neoplasm, subdural hematoma
- Evaluate for cerebrovascular disease, CVA

SPECT/PET Scan: Useful to differentiate AD from FTD

EEG:
- Delirium: generalized slow wave activity
- CJD: triphasic, periodic burst pattern
- Hepatic encephalopathy: triphasic waves

Neuropsychological testing:
- Differentiating normal aging from early dementia and MCI
- Differentiating types of dementia (AD v. FTD v. VaD)
- Differentiating dementia from cognitive changes associated with depression

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Delirium</th>
<th>Dementia of the Alzheimer's type (DAT)</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting symptoms</td>
<td>Unfamiliarity with the environment; short term memory loss “confusion”</td>
<td>Subjective complaints of poor memory and disorientation</td>
<td></td>
</tr>
<tr>
<td>Onset</td>
<td>Sudden</td>
<td>Insidious</td>
<td>Recurrent</td>
</tr>
<tr>
<td>Alertness</td>
<td>Fluctuating</td>
<td>Normal except in late phases</td>
<td>Preserved</td>
</tr>
<tr>
<td>Duration</td>
<td>Hours to weeks</td>
<td>Months to years</td>
<td>Variable</td>
</tr>
<tr>
<td>Orientation</td>
<td>Disorientation occurs late in course</td>
<td>Intact</td>
<td></td>
</tr>
<tr>
<td>Hallucinations</td>
<td>From onset</td>
<td>May occur late in course</td>
<td>Can occur in depression with psychiatric features</td>
</tr>
<tr>
<td>Cognitive functioning</td>
<td>Fluctuating with delirium</td>
<td>Progressive deterioration</td>
<td>Initially better with affective symptoms, cognitive decline, may deteriorate without treatment progression</td>
</tr>
<tr>
<td>Mood</td>
<td>Fluctuating</td>
<td>Labile</td>
<td>Usually sad</td>
</tr>
<tr>
<td>Sundowning</td>
<td>Present</td>
<td>Present</td>
<td>Absent, mood improves over day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Features/Findings</th>
<th>Depression</th>
<th>Depression Associated Dementia</th>
<th>Primary Dementia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Insidious</td>
<td></td>
</tr>
<tr>
<td>Past affective episodes</td>
<td>Common</td>
<td>Uncommon</td>
<td></td>
</tr>
<tr>
<td>Guilt/self-reproach</td>
<td>Common</td>
<td>Uncommon</td>
<td></td>
</tr>
<tr>
<td>Diurnal variation in mood</td>
<td>Worse in morning</td>
<td>Not seen</td>
<td></td>
</tr>
<tr>
<td>Memory deficit</td>
<td>Registration and recall are impaired, remote memory may be better than recent memory</td>
<td>Registration is better than recall, recent memory is worse than remote memory early in the illness</td>
<td></td>
</tr>
<tr>
<td>Response to cognitive testing</td>
<td>Poor interest, “don’t know” responses are common</td>
<td>Effort and interest are normal</td>
<td></td>
</tr>
<tr>
<td>Reaction to mistakes</td>
<td>Tendency to give-up easily</td>
<td>Tendency towards confusion</td>
<td></td>
</tr>
<tr>
<td>Practice effect</td>
<td>Can be coached</td>
<td>Consistently poor</td>
<td></td>
</tr>
<tr>
<td>Response to sleep deprivation</td>
<td>May improve deficits</td>
<td>Worse deficits</td>
<td></td>
</tr>
</tbody>
</table>
### Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Typical onset schizophrenia</th>
<th>Late onset schizophrenia</th>
<th>Very late onset schizophrenia-like psychosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of onset</td>
<td>(&lt; 40) years</td>
<td>40-60 years</td>
<td>(&gt; 60) years</td>
</tr>
<tr>
<td>Female preponderance</td>
<td>No</td>
<td>Yes</td>
<td>Definitely</td>
</tr>
<tr>
<td>Negative symptoms</td>
<td>Definitely</td>
<td>May be</td>
<td>Likely</td>
</tr>
<tr>
<td>Learning</td>
<td>OK</td>
<td>OK</td>
<td>Impaired</td>
</tr>
<tr>
<td>Retention</td>
<td>OK</td>
<td>OK</td>
<td>Impaired</td>
</tr>
<tr>
<td>Progressive cognitive deterioration</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Brain structural abnormalities</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Family history</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Early childhood maladjustments</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
</tr>
<tr>
<td>Antipsychotic during</td>
<td>Higher</td>
<td>Lower</td>
<td>Lower</td>
</tr>
</tbody>
</table>

### Treatments

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Primary Treatments</th>
<th>Adjunctive Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer's Disease</td>
<td>Cholinesterase Inhibitors and Memantine</td>
<td>Antidepressants, Mood Stabilizers and Antipsychotics</td>
</tr>
<tr>
<td>Anxiety Disorders</td>
<td>Antidepressants</td>
<td>Mood Stabilizers and Antipsychotics</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>Mood Stabilizers</td>
<td>Antidepressants and Antipsychotics</td>
</tr>
<tr>
<td>Delirium</td>
<td>Antipsychotics</td>
<td>Minimize drug effects</td>
</tr>
<tr>
<td>Depressive Disorders</td>
<td>Antidepressants</td>
<td>Mood Stabilizers and Antipsychotics</td>
</tr>
<tr>
<td>Personality Disorder</td>
<td>CBT, DBT, IPT</td>
<td>Antidepressants, Mood Stabilizers and Antipsychotics</td>
</tr>
<tr>
<td>Psychotic disorder</td>
<td>Antipsychotics</td>
<td>Antidepressants and Mood Stabilizers</td>
</tr>
<tr>
<td>Substance abuse/dependence</td>
<td>Substance Abuse Treatment Program</td>
<td>Antidepressants, Mood Stabilizers, Aversive treatments, Craving Reducing Drugs, Prevent Withdrawal and Treat Comorbidities.</td>
</tr>
</tbody>
</table>

### Role of the multidisciplinary team

**Continuum of Care**
Attending Psychiatrist

- Clinician
  - Make appropriate diagnosis and provide treatment
- Liaison
  - Obtain, collate and disseminate clinical information
- Team leader
  - Ensure appropriate conduct of the team
  - Supervision of the team members
- Educator
  - Provide evidence-based information to the team, patients and their families
- Director
  - Operational, Strategic and Fiscal management of the service

Director

- Operational Management
- Strategic Management
- Fiscal responsibility and Management
- Leadership with Evidenced Based Practice
- Team building/Interfacing
- Mentoring/Coaching/Engagement/Collegiality
- Quality Outcomes

- Policy and procedure standards & revisions
- Regulatory and Legal practice and Implementation
- Crisis intervention and Management
- Service revisions and Recovery
- Education to patients, staff and families
- Hire and Separation of Employees
- Advocacy
Medical Consultant

- Medical assessments
- Use of evidence based guidelines for the treatment of geriatric medical conditions
- Treatment team member
- Education of the team, allied professionals, patients and their families

Nursing Staff

- Patient/Family Centered Nursing care/Evidenced based practice
- Manager, Charge nurse, Staff nurse, Nurse Educator, Support staff
- Member of Treatment team
- Assessment, Implementation, Intervention & Evaluation
- Medication administration/Plan of Care
- Milieu Management/Group Implementation
- Liaison between the patient, their families and the treatment team
- Crisis/Emergency Intervention
- Advocate for the patient and their families
- Educator for the patient, their families and support staff

Primary Therapist

- Completing psychosocial assessments
- Clarifying legal issues
- Providing supportive counseling and psychoeducation
- Developing master treatment plans
- Designing behavioral plans
- Discharge planning
- Member of the Treatment team
**Occupational Therapist**
- Functional assessment
- Member of the treatment team
- Group and individual sessions with patients
- Education to patients and families
- Gait and balance assessment/evaluation
- Dysphagia assessment and treatment
- Liaison to physical therapy and rehabilitation
- Equipment and seating recommendations
- Discharge planning and home safety evaluations

**Recreational Therapist**
- Leisure assessment
- Historical, current interests and participation levels
- Appropriateness for groups and individual treatments
- Member of the treatment team
- Discharge recommendations

**Geriatric Psychiatry Team**
Care Across the Continuum

Community Based Care
Acute Care
Post-Acute Care

Prevention Screening Home Care
In-Patient Facility Based Crisis and Liaison
Outpatient SNF/LTC Rehabilitation

Continuum of Care

Thank You!

Questions?