Issues in Geriatric and Pediatric Patients

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Learning Objectives

- To learn about medical clearance process for geriatric and pediatric patients
- To understand geriatric and pediatric psychiatric emergencies – depression, suicide and psychosis
- To review treatment of agitation in the geriatric and pediatric population
Incidence of Mental Illness in Elderly


- 1004 patients screened
- 36% had no mental illness
- 50% >70 yrs old cognitive impairment
- 27% delirium
- 8-32% depressed
- 9% agitation
- 6% hallucinations
Formal Mental Status Examination

- Elements routinely assessed while interviewing pt
  - Appearance, behavior and attitude
  - Mood and affect
- Not routinely assessed while interviewing pt
  - Disorders of thought – Suicidal & homicidal ideation
  - Insight and judgment – Knowledge about illness
  - Disorder of perception - Hallucinations & delusions
  - Sensorium and intelligence - Cognitive impairment
<table>
<thead>
<tr>
<th>Test</th>
<th># Items</th>
<th>Administered by</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini-Mental State Exam</td>
<td>30</td>
<td>interviewer</td>
<td>5-10</td>
</tr>
<tr>
<td>Clock Drawing Test</td>
<td>1</td>
<td>self</td>
<td>1</td>
</tr>
<tr>
<td>Short Portable Mental Status Survey</td>
<td>10</td>
<td>Interviewer</td>
<td>2</td>
</tr>
<tr>
<td>Cognitive Capacity Screening Exam</td>
<td>10</td>
<td>expert</td>
<td>5-15</td>
</tr>
</tbody>
</table>
Mini Mental State Exam

- Examiner administered, has 16 questions, takes 5-10 minutes.
- The exam is scored with a maximum of 30 points.
- The cut of scores vary from 22 or below in those with 7th grade education or less to 26 or below in patients with some college or higher education levels.
Clock Drawing Test

- Preferred as a screening test
- Self-administered and takes a short time to complete.
- The Clock test is scored on a six point scale from no errors to no reasonable representation of a clock.
- Patients with a score of one or two are considered without impairment and those with three or greater have cognitive impairment.
Advanced Imaging – CT and MRI


- CT scan
  - Acute hemorrhage, calcifications and bones
  - Poor for white matter and posterior fossa

- MRI
  - Demyelination and metastasis
  - Problems - close quarters, metal, gadolinium

- Indications
  - New onset psychiatric illness
  - Recent or advanced cognitive dysfunction
  - Neurologic or focal findings
  - AMS
  - Candidates for ECT
Use of EEG


- Enrolled patients with AMS including agitation, disinhibition, psychosis
- 81 got EEG and 87 did not
- 5 psych pts received EEG
- 58 slowing, 14 SZ, 5 normal
- Changed diagnosis in 42%
- In 8 pts with psych presentation, all had new onset of symptoms.
  - 2 had NCS, 3 had slowing and 3 were nl
Testing Approach to Gero-Psych Patients

- Clinically focused testing
  - Abnormality identified
  - Most likely etiology:
    - Infectious – CBC, UA, CXR
    - Trauma – CT scan
    - Vascular – CT scan, coags
    - Substance use – CBC, lytes, liver enzymes
    - Metabolic/endocrine – lytes, thyroid, liver enzymes
    - Medication related – drug levels
Common Disorders to Identify in the Elderly

- Dementia and Delirium
- Depression
- Suicidality
- Psychosis
- Substance use disorders
<table>
<thead>
<tr>
<th></th>
<th>Delirium</th>
<th>Dementia</th>
</tr>
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<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Slow</td>
</tr>
<tr>
<td>Awareness</td>
<td>Reduced</td>
<td>Clear</td>
</tr>
<tr>
<td>Alertness</td>
<td>Fluctuates</td>
<td>Normal</td>
</tr>
<tr>
<td>Orientation</td>
<td>Impaired</td>
<td>Impaired</td>
</tr>
<tr>
<td>Memory</td>
<td>Impaired</td>
<td>Impaired</td>
</tr>
<tr>
<td>Perception</td>
<td>Hallucinations</td>
<td>Intact</td>
</tr>
<tr>
<td>Thinking</td>
<td>Disorganized</td>
<td>Vague</td>
</tr>
<tr>
<td>Language</td>
<td>Slow</td>
<td>Word finding</td>
</tr>
<tr>
<td></td>
<td>difficulty</td>
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</tbody>
</table>
Delirium Etiologies

- **Predisposing**
  - Comorbid illness-dementia
  - Age and male gender
  - Medications-polypharmacy, psychoactive & substance use
  - Functional & sensory status
  - Psychiatric

- **Precipitating**
  - Infections-pneumonia, UTI
  - Endocrine/Metabolic-electrolytes, glucose, thyroid
  - Medication-new meds, pain, substance use
  - CNS events-CVA, SZ,
  - Cardiovascular-CHF, AMI, shock, resp failure
  - Iatrogenic-surgeries, catheters, restraints
Mortality Rate of Delirium


- ED incidence 7-20%
- Frequently missed
  - 24% maximum detection rate
  - Due to lack of screening
- High rate of mortality
  - 36% vs. 10%
- High rate of morbidity
  - High rate of incontinence, decubitus, malnutrition
Tool to Detect Delirium

- 24 delirium scales found in literature
  - CAM, CAM-ICU, DRS, MDAS, NEECHAM
- Confusion Assessment Method (CAM)
  - 4 questions – Need 1 & 2 and 3 or 4
    (1) Acute onset and fluctuating course
    (2) Inattentive
    (3) Disorganized thinking
    (4) Altered level of consciousness
- Tested in ED
- Commonly used with other tests - MMSE or RASS
- 10 minutes to perform
Depression

- Most common psych problem in elderly
- Associated with marked disability, functional decline, increased hospitalization increase use of medical services
- Overlap of medical symptoms and depressive ones-fatigue, insomnia, lack of appetite
- Vague symptomatic complaints
- Cognitive disorders may lead to depression
- Do not spontaneously express their feelings
Psychosis

- Dementia 40%
  - Irrational thought & visual hallucinations
- Depression 33%
  - Somatic, persecution, guilt, poor self-esteem
- Delirium 7%
- Medical conditions 7%
- Schizophrenia 1%
  - Late onset >40 yrs old
  - Very late onset >60 yrs old
Substance Use Disorders

- Alcohol most common and growing incidence
- 14% of elderly ED patients
- Less than younger groups but under reported
- Elderly more at risk for intoxicating effects
- Screen using CAGE
Treatment of Agitation in the Elderly Population

- Ideal agent not identified
- Agents used
  - Conventional anti-psychotics
  - Atypical anti-psychotics
  - Benzodiazepines
- Other agents
  - Anti-histamines?
  - Buspirone, ketamine, trazodone, valproic acid, carbamazepine?
Problems with Agents Currently Used in Elderly to Treat Agitation

- Anti-psychotics
  - QT prolongation, EPS, sedation, anti-cholinergic, drug-drug interaction
  - Atypical have an association with increased risk of cardiovascular death
- Benzodiazepine
  - Fall risk, confusion, memory impairment, oversedation
  - Consider lower doses – start at 1/5 to 1/4 of usual dose
Common Disorders to Identify in the Elderly

- Dementia and Delirium – abnormal vital signs can be key
- Depression – may present with other symptoms
- Suicidality – less likely to admit to their thoughts
- Psychosis – consider medication related
- Substance use disorders – high denial rate
Take Home Points

- High rate of mental illness
- More extensive clearance process usually indicated
- Look for atypical presentations of psychosis, suicidality, substance use
- Ideal agent for agitation not found but consider atypical antipsychotics
Undiagnosed Mental Illness 40.3%

Number of diagnoses

<table>
<thead>
<tr>
<th>Number</th>
<th>Count</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>0</td>
<td>77</td>
<td>59.7%</td>
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<tr>
<td>1</td>
<td>20</td>
<td>15.5%</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>6.2%</td>
</tr>
<tr>
<td>3 or &gt;</td>
<td>24</td>
<td>18.6%</td>
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</table>

Most frequent diagnoses

- Oppositional Defiant: 13.2%
- ADHD: 8.5%
- Conduct Disorder: 8.5%
- Separation: 7.0%
- Dysthymia: 7.0%
- Suicide: 6.2%
- Depression: 6.2%
Assessment of Children and Adolescents in ED

**Interview**

- Flexible order of interview
- Multiple sources of information
- Use open ended questions
- Avoid starting with upsetting and challenging questions
- Ask about their interests
- Offer food/drinks
- Key points: assess for safety, impaired thoughts, hallucinations
- Look for evidence of abuse, neglect, intoxication
Assessment - continued

- Provide structure – orient to ED environment
- Buffer unexpected changes to reduce frustration
- Maintain positive tone to interactions
  - Speak with soft voice
  - Validate feelings
  - Offer distraction
  - Find something in child’s story to agree with
Attention Deficit & Disruptive Disorders

- Brought to ED by school officials, police, parents
- Due to aggressive behavior
  - Kicking
  - Punching
  - Making threats
Attention Deficit Hyperactivity Disorder

- **Symptoms**
  - Inattention over activity, impulsivity
  - “Driven” cannot sit still

- **Incidence**
  - Seen in 5-12% of pediatric patients
  - More common in boys
  - Associated with oppositional defiant syndrome and conduct disorder

- **Treatment**
  - Psychostimulants and one non-psychostimulant (Atomoxetine)
ODD and CD Presentations

- **Oppositional Defiant Disorder (ODD)** – arguing, losing temper, deliberate annoyance
- **Conduct Disorder (CD)** – violation of rights, aggression, lies, theft, truancy, runaway, stealing, property destruction
- Proactive aggression – deliberate with identifiable external goal (conduct d/o)
- Reactive aggression – emotional dysregulation (girls at higher suicide risk if depressed)
Oppositional Defiant and Conduct Disorders

- **Oppositional Defiant** – Problems with authority figures, provocative behaviors, negativity
- **Conduct** – persistently violates the rights of others or social rules and norms
- **Incidence** – 5% 2-3X in boys
- **May lead to antisocial personality disorder**
Suicide - Always ask

- If the intent was to harm or kill oneself
- “Sometime kids just don’t want to be alive – do you feel that way sometime?”
- “In the past week, including today, have you felt like life is not worth living?”
- “In the past week, including today, have you wanted to kill yourself?”
- Follow-up questions for SI:
  - “Have you ever tried to kill yourself?”
  - “In the past week, including today, have you made plans to kill yourself?”
Substance Abuse

- Most common diagnostic category (28%)
- Alcohol most common
- Marijuana most common illicit substance
- Commonly comorbid
- Boys – illicit drugs ; Girls – more ecstasy
- Prescription drug use on the rise
- OTC medications – dextromethorphan
- Risk for pregnancy, incarceration, suicide
Anxiety Disorders

- Anxiety-related visits increased in recent years
- More often - physical symptoms of panic attacks
- Less often - catastrophic thinking and avoidance
- Most common symptoms - palpitations, nausea, trembling, and shortness of breath
- Adolescents - more likely to complain of cognitive symptoms - “fear of losing control”
Anxiety Disorder

- Separation Anxiety Disorder
  - Normative behavior becomes excessive and developmentally inappropriate
- Social Anxiety Disorder
  - Fear of unfamiliar persons
- Generalized Anxiety Disorder
  - Excessive and uncontrolled worry with impaired function

**ED Management** – benzodiazepine, diphenhydramine ?, hydroxyzine ? OP f/u
Obsessive Compulsive Disorder

- Undesired thoughts, impulses, worries, memories, words, images
- Checking, ordering, washing, hoarding
- Some areas of life unaffected
- Affects 1%, males and females equal
- Treatment - Cognitive Behavioral Therapy and/or SSRIs
Depression

- Depression – similar to adult presentations
- Young child may demonstrate irritability or sadness
- 29% of all adolescence had depression
- Early onset – significant disability and psychological distress
- Depression + psychotic features more likely represent a bipolar form of depression
Bipolar Disorder

- Can be challenging to distinguish from ADHD can be comorbid

Management
- Safety, reduce environmental stimulation
- Evaluate for substance abuse
- Initiate an atypical antipsychotic
- Intensive outpatient tx vs. hospitalization
- More responsive to atypical antipsychotic than to lithium and mood stabilizers
Childhood Schizophrenia

- May occur after age 5
- Similar to that seen in adults
- Acute, gradual or combination
- Auditory hallucinations
- Delusions less bizarre than adults
- Schizophrenia and bipolar disorder can occur with an earlier onset
- Disorganization in thinking may be subtle
- Thought “blocking,” train of thoughts, “derailed” bizarre thoughts
- Hallucinations may arise from toxidromes
Eating Disorders

- **Anorexia Nervosa**
  - Refusal to maintain weight
  - Intense fear of becoming fat
  - Disturbance of body image

- **Bulimia Nervosa**
  - Binge eating
  - Behaviors to prevent weight gain
  - Preoccuption with weight
Eating Disorders

- Cardiac – arrhythmias, arrest, Q-T prolongation
- GI – constipation, ileus
- GYN - amenorrhea
- Metabolic - glucose intolerance, hypokalemia
- Neuro/ortho– paralysis, neuropathy, weakness
- Renal – polyuria, polydipsia
Suicide rates rose across the US from 1999 to 2016.

- Increase 38 - 58%
- Increase 31 - 37%
- Increase 19 - 30%
- Increase 6 - 18%
- Decrease 1%

SOURCE: CDC’s National Vital Statistics System;
CDC Vital Signs, June 2018.
### Relationship to Mental Illness

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<tr>
<th></th>
<th>No known mental conditions.</th>
<th>Known mental health conditions</th>
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<tbody>
<tr>
<td><strong>Sex</strong></td>
<td>Female 16%</td>
<td>Female 31%</td>
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<tr>
<td></td>
<td>Male 84%</td>
<td>Male 69%</td>
</tr>
<tr>
<td><strong>Method</strong></td>
<td>Other 8%</td>
<td>Other 8%</td>
</tr>
<tr>
<td></td>
<td>Poisoning 10%</td>
<td>Poisoning 20%</td>
</tr>
<tr>
<td></td>
<td>Suffocation 27%</td>
<td>Suffocation 31%</td>
</tr>
<tr>
<td></td>
<td>Firearm 55%</td>
<td>Firearm 41%</td>
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ED Visits and Suicide Deaths

8 Health Systems, 8 States, N = 5984 suicides 2000-2010
Within 4 weeks of death, N = 4988 enrolled

<table>
<thead>
<tr>
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<th>Deaths</th>
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<tr>
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<td>N</td>
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<tr>
<td>Any visit</td>
<td>2488</td>
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<tr>
<td>ED Mental Health</td>
<td>373</td>
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<tr>
<td>ED Chem Dependency</td>
<td>72</td>
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<tr>
<td><strong>ED Other</strong></td>
<td><strong>640</strong></td>
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<tr>
<td>IP Mental Health</td>
<td>232</td>
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<tr>
<td>OP Mental Health</td>
<td>729</td>
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</table>

Percent of patients who visited a PCP or MH provider before suicide

**CAMH Suicide Handbook**

<table>
<thead>
<tr>
<th></th>
<th>PCP</th>
<th>MH provider</th>
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</thead>
<tbody>
<tr>
<td><strong>1 month</strong></td>
<td>All: 45%</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>≤35 yrs.: 23%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>≥55 yrs.: 58%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>1 year</strong></td>
<td>All: 77%</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>≤35 yrs.: 62%</td>
<td>24%</td>
</tr>
<tr>
<td></td>
<td>≥55 yrs.: 77%</td>
<td>8.5%</td>
</tr>
</tbody>
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Case

64 year old female who is has a history of depression presents to clinic talking about cutting her body into pieces. Patient has a history of alcohol abuse. Her husband brings her in because he is concerned about her.

What additional information is needed?
What is her suicide risk based on her assessment?
What should be done?
When to Assess

- At first presentation to clinic or admission to an inpatient unit
- Change with the client’s clinical state
- When a family member, significant other, friend or staff member expresses concern of suicidality.
- With any major shift in the treatment plan.
- With any incident of suicidal behaviour or ideation.
Suicide Identification

- Overt
- Suspected
  - Any overdose
  - Accidental gunshot wound
  - Wrist laceration
  - Automobile crash
  - Fall from height
- Unsuspected
- Completed
- Screened in
Clinical Rating Scales of Suicide Risk Assessment


- Reviewed Modified Sad Persons, Beck Depression Inventory, Beck Anxiety Inventory, Beck Hopelessness Scale, Beck Score for Suicide Ideation, High-Risk Construct Scale
- 100% Sensitivity and negative predictive value
- Low Specificity and positive predictive value
- Cannot predict suicide and strict cut off scores should not be used.
Problems and Concerns of Screening

- **Problems**
  - Too busy
  - Not part of the responsibilities
  - Don’t get paid for this service
  - Staff attitudes towards psychiatric patients
Occult Suicidality

- Computerized mental health screening panel
  - Waiting room patients
  - 11.6% (186) had suicide ideation
  - 2% (31) had suicide plan
  - Missed in 80.6% (25 of 31) charts

- Web based adolescent psych screening
  - Used a Behavioral Assessment
  - Dx of depression, suicide, PTSD, violence
  - 64.6% agreed to screening
  - 10.5% tested positive
“Suicidal behavior appears to elicit mostly negative feelings among staff members…”

If not acknowledged and properly handled...may lead to premature discharge.”

“It is important task for staff members to contain and work through negative feelings towards patients.”

Key element influencing whether a patient commits suicide
Relative Risk of Suicide in Specific Disorders

Adapted from Practice Guideline for the Assessment and Treatment of Patients with Suicidal Behaviors [American Psychiatric Association, 2003, pp. 30, 41]

- Previous suicide attempt 38.4
- Eating disorders 23.1
- Bipolar disorder 15.0
- Major depression 20.4
- Mixed drug abuse 19.2
- Dysthymia 12.1
- Obsessive-compulsive disorder 11.5
- Panic disorder 10.0
- Schizophrenia 8.45
- Personality disorders 7.08
- Alcohol abuse 5.86
- Cancer 1.80
Suicide Assessment

- No perfect tool with scores
- Suicide Assessment
  - High – admit
  - Medium – consult psych
  - Low – home with follow up
- Use static and dynamic risk factors
- Good documentation
Risk Assessment

- Static risk factors
- Dynamic risk factors
- Protective factors
- Document thought process
- Provide appropriate discharge process to include safety planning
Static Risk Factors for Suicide

- Age
- Gender
- Medical problems
- Past attempt
- Family hx of suicide
- Psychiatric illness
- Substance use disorder
Dynamic Risk Factors for Suicide

- **High risk suicide attempt**
  - Use of highly lethal means (guns-hanging)
  - Planned and or rehearsed ahead of time
  - Efforts to not be discovered-going to remote site
  - Suicide note-putting affairs in order

- **Moderate risk**
  - Use of limited # of medications or substances of abuse
  - High likelihood of being discovered or calling for help
  - Suicide note overtly manipulative or designed to gain attention
  - Ambivalence about lack of success

- **Low risk attempt (gesture)**
  - Taking a small number of pills
  - Attempt in front of another person
  - Happy that the attempt was not successful or feels “stupid”
Protective Factors

- Support systems
- Pregnancy
- Parenthood
- Religiosity
Admission may be necessary

- After a suicide attempt, aborted suicide attempt or in the presence of suicidal ideation with:
  - Major psychiatric disorder such as psychosis
  - Past attempts
  - Possibly contributing medical conditions
  - Inability to cooperate with partial hospital or outpatient treatment
  - Need for supervised setting for medication trial or electroconvulsive therapy (ECT)
  - Limited family and/or social support
  - Lack of an ongoing clinician-patient relationship
Admission *generally indicated*:

- Attempt was violent, near-lethal, or premeditated
- Precautions were taken to avoid rescue or discovery
- Persistent plan and/or intent
- Distress is increased or patient regrets
- Patient has limited family and/or social support
- Current impulsive behavior, severe agitation, poor judgment, or refusal
- Specific plan with lethality
- High suicidal intent
Patient is Low Suicide Risk

- Low risk may go home
- Appropriate psychiatric assessment
- Take into account patient, family and community factors
- Chart needs to reflect the thought process for low risk
- Document the discharge plans
## Suicide Discharge Plans


<table>
<thead>
<tr>
<th>Intervention</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief patient education</td>
<td>Instill hope</td>
</tr>
<tr>
<td>Safety planning</td>
<td>Identify coping strategies</td>
</tr>
<tr>
<td>Lethal means counseling</td>
<td>Reduce access to lethal means</td>
</tr>
<tr>
<td>Rapid referral</td>
<td>Follow up in 24 (&lt;7days)</td>
</tr>
<tr>
<td>Caring contacts</td>
<td>Brief communication and connectedness</td>
</tr>
</tbody>
</table>
Evaluation Concerns

Contracts for Safety


- Setting of pre-existing, deep, committed doctor patient relationship
  - Pros – deepen commitment, strengthen therapeutic alliance, facilitate communication, lower anxiety, document precautions
  - Cons – anger or inhibit client, introduce coercion, false sense of security

- Conclusion – “...Never enough to protect against legal liability and lead to adverse consequences for the clinician and the patient.”
Case

64 year old female who is has a history of depression presents to clinic talking about cutting her body into pieces. Patient has a history of alcohol abuse. Her husband brings her in because he is concerned about her.

What additional information is needed?

Much more information needed concerning plan, means, support, prior suicide history & substance use

What is her suicide risk based on her assessment?

Patient has prior history of suicide and knives found in her room.

This puts her in high risk category

What should be done?

Refer to psychiatry or ED for admission
Suicide
Take Home Points

- Patients need periodic suicide screening
- Patients who screen in, need suicide risk assessment
- Patients in moderate to high risk need psychiatric referral
- Patients in low risk may gone home with lethal means, safety plan and discharge instructions
Contact Information

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leszun@gmail.com