DEPRESSION

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DISCLOSURES:

No financial disclosures/conflicts of interest to disclose
OBJECTIVES:

• Define Major Depressive Disorder
• Define Depression Symptoms
• Outline Depression Screening Tools
• Outline Differential Diagnosis
• Discuss pharmacologic treatment options
  • Not all SSRIs are created equal (especially in geriatric population)
• Discuss Non-pharmacologic options
• Discuss Common Pitfalls
• Question and Answers
DEFINITIONS:

DSM-5:
Individual must be have 5 or more symptoms during the same 2-week period and at least one of the symptoms should be either (1) depressed mood or (2) loss of interest or pleasure.

- Depressed mood most of the day, nearly every day.
- Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day.
- Significant weight loss when not dieting or weight gain, or decrease or increase in appetite nearly every day.
- A slowing down of thought and a reduction of physical movement (observable by others, not merely subjective feelings of restlessness or being slowed down). (Psychomotor retardation)
- Fatigue or loss of energy nearly every day.
- Feelings of worthlessness or excessive or inappropriate guilt nearly every day.
- Diminished ability to think or concentrate, or indecisiveness, nearly every day.
- Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.
DEFINITIONS:

DSM-5:
These symptoms must cause the individual clinically significant distress.
Impairment in social, occupational, or other important areas of functioning.
The symptoms must also not be a result of substance abuse (medications) or another medical condition.
SYMPTOMS:
SCREENING TOOL/ALPHABET SOUP

• PHQ-2 (Patient Health Questionnaire -2 questions)
  • The PHQ-2 has sensitivity comparable with the PHQ-9 in most populations;
  • However, the specificity of the PHQ-9 ranges from 91% to 94%, compared with 78% to 92% for the PHQ-2. (aafp.org)

• PHQ-9 (9 questions)

• GDS (Geriatric Depression Scale)
  • 15 item test, indicative of depression if score above 5, highly likely if above 10.

• CDS (Clinical Depression Scale) Can be self administered
  • https://psymed.info/clinical-depression-test

• SIG E CAPS
  • Need 1-2 major symptoms plus 3-4 minor symptoms

• SAS (Suicide Assessment Screen) important if patient is endorsing thoughts of death and dying,
  • Should screen for suicide risk in new diagnosis of depression, or worsening symptoms.
DIFFERENTIAL DIAGNOSIS

Dysthymia
Psychosis
Bipolar Disorder
Major neurocognitive disorder
Thyroid Disorders
Infection (i.e. Mononucleosis)
Sleep apnea
Cardiac Disease
Medication side effects (benzos, gabapentin)
Substance Abuse (EtOH, Stimulant abuse)
Cerebrovascular Disease
   Pseudobulbar Affect
Delirium (especially hypoactive)
Many more…
PHARMACOLOGIC TREATMENTS

SSRIs are considered 1st line drug therapy
  More favorable side effect profile.
  Well studied (over 30 Placebo controlled RCTs)

Not all SSRIs are equal

- Sertraline: modest NE and dopamine effect, minimal drug interactions, short half life, activating
- Escitalopram and citalopram: Excellent choices if multiple meds already, little CYP involvement
- Fluoxetine: active metabolite norfluoxetine half life of 6-9 days, high CYP involvement.
- Paroxetine: greater risk of causing cognitive impairment, anticholinergic properties (though better than TCAs). CYP 2D6 inhibitor.

CAUTIONS WITH SSRI USE

Increase risk of bleeding, especially with NSAIDs, Anticoagulation
Bradycardia
Serotonin Syndrome, especially if multiple agents being used, MAOIs
Hyponatremia
Extrapyramidal symptoms, in Parkinson’s
Falls/fractures
Suicide Risk (especially within the 1st month of use)

Non-SSRIs

- Bupropion: well tolerated in ill patients, smokers, neuropathy, caution with seizures, psychosis
- Duloxetine: SNRI, great for concomitant neuropathy, stress incontinence, caution with heart patient due to norepinephrine effects.
- Mirtazapine: SNRI-Like, great in frail patients, helps with sleep and boosts appetite. Less data on safety, caution in memory patients.
- Venlafaxine: SNRI, studies suggest appropriate in late life GAD, good for pain, atypical depression, less tolerated than sertraline, caution with hypertension, consider for Non-responders to SSRIs.
- TCAs: (amitriptyline, nortriptyline), not favored, especially in older population 3rd line therapy.
  - Anticholinergic, dizziness, falls, orthostasis, sedation, blurred vision, constipation, heart block.
- MAOIs: 4th line therapy,

ADJUNCTIVE THERAPIES

Atypical antipsychotics
  apiplazole, olanzapine, quetiapine

Mood stabilizers
  lamotrigine, valproic acid

Caution with benzodiazepines to treat associated anxiety (should be only for short term use.)
NON-PHARMACOLOGIC THERAPIES

Meditation/Spiritual Support

Yoga/physical activity regimen

Craniosacral

Counseling in clinic/mentoring/family support

Psychotherapy/Cognitive Behavioral Therapy (CBT)

Electroconvulsive Therapy (ECT), repetitive transcranial magnetic stimulation (rTMS)

Vagus Nerve Stimulation


DEMENTIA

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OBJECTIVES:

- Define Dementia
- Define and Outline Dementia Screening Tools
- Discuss Staging Tools.
- Outline Differential Diagnosis
- Review risk factors
- Types of dementia
- Discuss pharmacologic treatment options
- Discuss Non-pharmacologic options with behavioral disturbance
- Discuss Common Pitfalls
- Question and Answers
DEMENTIA DEFINITION

DSM-5: Major neurocognitive disorder/ dementia (loss of mind) later in life typically seen at or after 7th decade.

   Impairment Functional (IADLs/ADLs) and cognitive domain must be involved

Compare to Mild Cognitive Impairment

   Cognitive domain impairment not impacting function.

Compare to amentia

   Absent of mind, intellectual disability from early in life.
   Key differences are in history.
DEMENTIA DIFFERENTIAL

- Dementia is an umbrella term with multiple causes
- Depression other psychiatric disorders
- Amentia
- Nutritional deficiencies,
- Primary and metastatic cancer
- Thyroid dysfunction
- Medication side effect
- Sleep disorder
- Vascular disease
- Infection
- Protracted delirium
- Traumatic Brain Injury
- Seizure Disorder
- Alcoholism
- Stress

- Start thinking subtypes

- Work up: really good history and physical examination focus on neuro exam (especially cognitive), Labs: CMP, TSH, CBC-Diff, consider based on history: syphilis, HIV, heavy metal, vitamin levels, MRI of Brain, very rare that PET scan will be beneficial (ask question, Will this change treatment?)
TYPES OF DEMENTIA/NEUROCOGNITIVE DISORDERS

• Alzheimer’s (most common)
• Vascular
• Mixed type
• Parkinson’s
  • Parkinson’s Plus:
    • Progressive Supranuclear Palsy
    • Multi-system Atrophy/Shy-Drager’s Syndrome
• Lewy Body
• Frontotemporal (Pick’s Disease)
• Creutzfeldt-Jakob
• Normal-Pressure Hydrocephalus
• Posterior Cortical Atrophy
• Alcohol induced dementia (multiple etiologies for dementia)
  • Korsakoff Syndrome
  • Direct toxic effect on brain cells
  • Biologic stress of intoxication and withdrawal
  • EtOH related cerebrovascular disease
  • Head injuries when intoxicated
• B12 Deficiency
• Huntington’s

Dementia types. https://www.alz.org/alzheimers-dementia/what-is-dementia/types-of-dementia
TYPES OF DEMENTIA/NEUROCOGNITIVE DISORDERS

• Age (cumulative effect of stress on brain cells over one’s lifetime)
• Alcohol Abuse
• Low education
• Down’s Syndrome (trisomy 21)
• Family history
• History of head trauma, seizure, stroke
• Longstanding use of anticholinergic meds effects. Certain Psychotropics
• Atherosclerosis
  • Smoking
  • Hypertension
  • Hypercholesterolemia
  • Diabetes
• Sleep apnea
• Exposure to Anesthesia
• Sepsis
• Delirium events (severity and duration)
• Any thing that causes decline in overall health can reduce efficiency of the mind.
SCREENING FOR DEMENTIA

• Mini-cog, tests attention, immediate and intermediate recall (5min), visuospatial/executive function
  • 3 item recall, clock draw
• Test Your Memory (TYM)
  • Self test.

• Mini-mental State Exam
  • Most widely used/studied (though this changing)
  • Also 30 item lower sensitivity, may not pick up mild cognitive impairment as easily,
  • Copyrighted, should be paying for use

• Montreal Cognitive Assessment
  • Consider if MMSE is unhelpful (normal or near normal score).
  • MoCA 30 item, multi-domain. Available in multiple languages. Adjustment for education. Highest sensitivity, though specificity is lower (higher false positive rate)
  • Not meant for self assessment, also copyrighted though no charge.

• St. Louis University Mental Status (SLUMS)
  • More sensitive than MMSE, multi-domain, stratifies score for education level.

• Neuropsychologic testing: consider when inconclusive screening present, assesses behavior/emotional components and learning style.
STAGING

- Key to staging, how has cognition impacted function. Multiple staging tests available.
- Cognitive exams can be challenging especially if scoring 15 or less on MOCA/MMSE
- Dementia Severity Rating Scale (DSRS)
  - 54 items, can take significant time to answer questionnaire.
- Functional Assessment Severity Test (FAST Scale)
  - Typically used for Alzheimer’s though functional loss pattern is seen in most dementia types.
  - 7 main stages, sub-stages in 6 and 7. Very quickly can pinpoint severity and prognosis.

PHARMACOLOGIC TREATMENT OPTIONS

• Remove if possible the offending cause.
• Key to treatment is to improve or maintain cognitive function
• Pros and Cons
  • Benefits and common side effects
• Donepezil
• Memantine
• Rivastigmine
• Galantamine
• Combination of these meds.
• Several ongoing studies/clinical trials.
NON-PHARMACOLOGIC TREATMENT OPTIONS

• Exercise and Diet
  • MIND Diet
    • Data from Rush University (citation needed)
• Brain games, social interaction, art/music therapy
• Maintaining support at home to avoid decline in health, support deficient IADLs/ADLs
• DICE Approach to Neuropsychiatric Symptoms (Describe, Investigate, Create, Evaluate)
  • Citation needed
• Prepare for the next stages.
  • Advance Directives.
  • If cognition is evolving so can ability to make decisions
  • Does the patient still have capacity to understand their disease, role of advance directives, financial decisions?
  • Driving evaluation (know your state’s mechanisms),
    • typically below 20/30 on cognitive screening tests there are signs, multiple accidents, getting lost.
• Ability to stay safe at home
• There is often an conflict between safety and independence.
• Adult protective services if patient is vulnerable and