Mood disorders in Older Adults

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OBJECTIVES

Know and understand:

- Incidence and morbidity of depressive disorders among older adults
- Diagnostic criteria for depression and mania
- Treatment options for older adults with depression or mania
- Actions and side effects of drugs for depression and mania in older adults

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TOPICS COVERED

- Epidemiology
- Clinical Presentation
- Diagnosis
- Treatment

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Case Study

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67F HTN, DM, HL, and CAD was brought to the ED by her daughter for nausea, confusion, fatigue, and loss of appetite for 3 days. Patient felt sad since her sister passed away 6 weeks ago and was prescribed fluoxetine by her primary care physician 2 weeks earlier. On exam she was lethargic, only oriented to place and person, and had slow speech. Laboratory studies revealed serum sodium levels of 124 mmol/L.

Should SSRI have been prescribed ?

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Patient has grief

- Hyponatremia induced by SSRI
- Grief persists in most older adults with loss but *Complicated Grief* occurs when vegetative symptoms persist several months after a sentinel event

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Case Presentation

- 82F arrives at Geriatric Clinic
- 4 months ago, she was tearful and sad.
  - Loss of appetite and interest in activities. Sleep problems
  - Son recently moved in with her after he lost his job and divorce.
  - No psychotic symptoms or suicidal ideation.
- History: depression, diabetes mellitus, hypertension, coronary artery disease, osteoarthritis
  - No history of suicide attempt or psychiatric hospitalization

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Case continuation

- Medications: metformin, levothyroxine, hydrochlorothiazide, metoprolol, docusate, ibuprofen as needed
  - Trials of sertraline and venlafaxine were initiated 4 months ago, but poorly tolerated (GI symptoms).
  - Mirtazapine started 3 months ago & titrated to 45 mg nightly.
    - Better mood, sleep and appetite, and she cries less.
    - Still spends most of her time in bed and remains uninterested in usual activities
    - She is troubled by adverse effects of constipation and weight gain.
- Laboratory findings: hemoglobin A1c 8%; glomerular filtration rate 35mL/min; normal thyrotropin level

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Case question

Which one of the following treatment options should be considered next?

A. D/C mirtazapine and initiate nortriptyline.
B. Cognitive-behavioral therapy.
C. Add aripiprazole.
D. Add nortriptyline
E. Uni-polar electroconvulsive therapy.

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Answer

Which one of the following treatment options should be considered next?

A. Discontinue mirtazapine and initiate tricyclic antidepressant.
B. Refer for cognitive-behavioral therapy.
C. Add aripiprazole.
D. Add lithium.
E. Refer for electroconvulsive therapy.

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Older adults with depressive symptoms have increased length of stay and higher 30 day readmission rates than non – depressed elderly ?

A. True
B. False

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Older adults with depressive symptoms have increased length of stay and higher 30 day readmission rates than non – depressed elderly ?

A. True
B. False

2014 University of Maryland prospective cohort study on older adults (n=750) 65 years old and older found that LOS was 4.0 days and recidivism rate 19% in both depressed and non depressed elderly. Age, > 2 hospitalizations in past 6 months and Charlson Comorbidity Index score were significant predictors of 30 day re-hospitalization. JAGS (2014) 62:495.

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Characteristics of depressed hospitalized elderly

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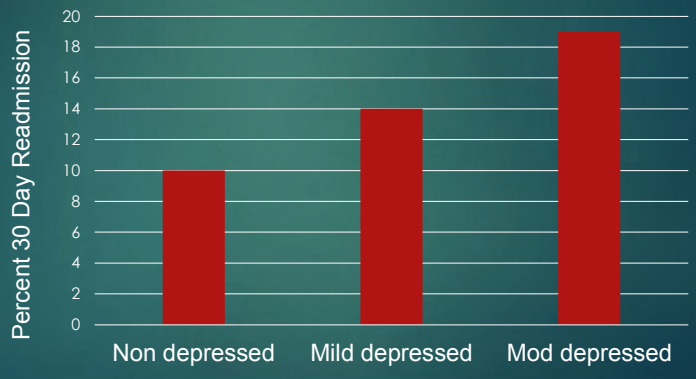
Dose – response of depression on re-hospitalization rates in middle aged adults (PHQ9)



J Hosp Med (2014) 9:358

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Key points

- Determinants of acute care usage are different between middle aged and older adults
- Age, co-morbidities & hospitalization history predict older adult acute care use
- Depression is associated with higher disability and falls

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Clinical practice change ideas for post - hospitalization

- Screen hospitalized elderly for depression (PHQ9 or GDS15)
- Refer screen + hospitalized patients to Fall Prevention clinic
- Consider social determinants of health (loneliness and social isolation) in your health care plan.

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EPIDEMIOLOGY AMONG OLDER ADULTS

- Minor depression
  - 15% (range 8 - 40%)
  - Associated with
    - ↑ use of health services,
    - excess disability,
    - poor health outcomes,
    - ↑ mortality
- Major depressive disorder
  - 6%–10% of older adults in primary care clinics
  - 12%–20% of nursing home residents
  - 11%–45% of hospitalized older adults

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Late life depression

Atypical manifestations

- Weight loss
- Fatigue
- Somatic symptoms
- Bereavement

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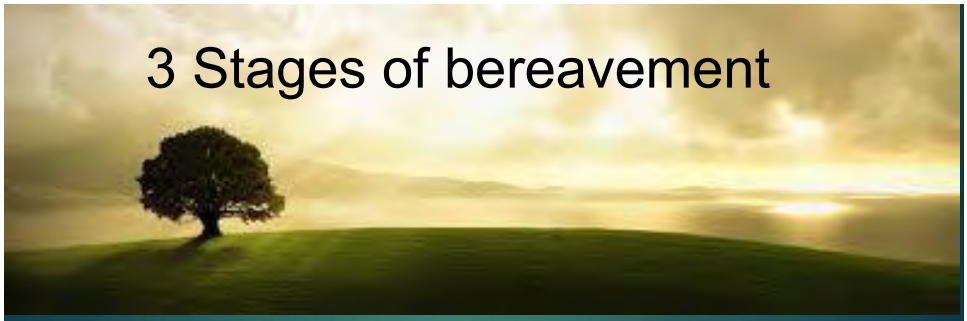

3 Stages of bereavement

1. Numbness (weeks)
2. Depression (weeks to one year)
3. Recovery

P.J. Clayton **Bereavement**
E.S. Paykel (Ed.), Handbook of Affective Disorders, The Guilford Press, New York (1982), pp. 403-415

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Bereavement Symptoms

No gender differences:

- Depressive symptoms
- Sleep disturbance
- Crying
- Anorexia
- Nervousness
- Concentration problems / poor memory

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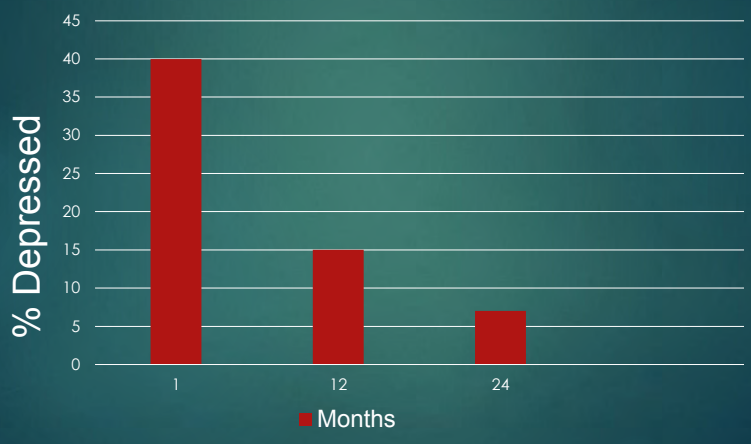
Bereavement and Depression



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Risk factors for persistent depression

- Younger age
- Grief beyond 2 months
- Hx of major depression
- Depression at 7 months

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How to communicate with bereaved patients

- Have patient tell their story of loss
- Ask about positive memories
- Ask how things are different now
- Who helps the patient get through the day
- Any loss of resources or transportation ?

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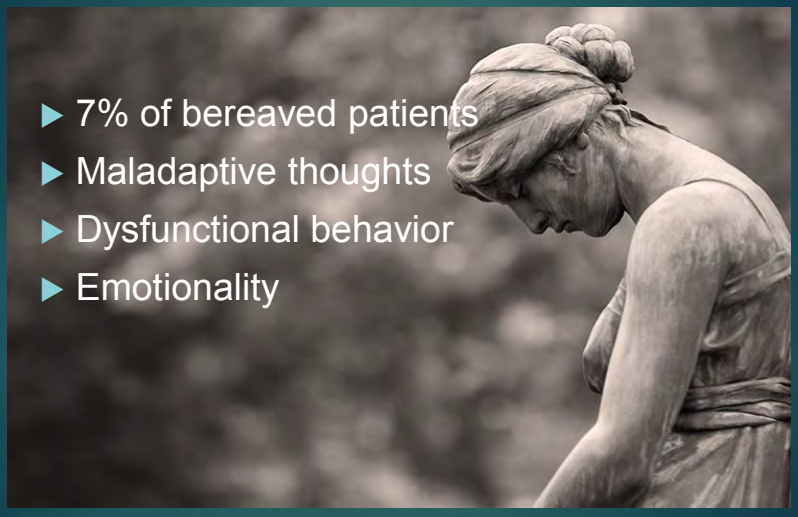
Complicated Grief



- 7% of bereaved patients
- Maladaptive thoughts
- Dysfunctional behavior
- Emotionality

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Complicated Grief vs Depression

Complicated Grief	Depression
▶ Yearning,	▶ depressed mood,
▶ sorrow,	▶ anhedonia,
▶ preoccupying thoughts of the deceased,	▶ worthlessness,
▶ difficult acceptance of death	▶ psychomotor and neuro-vegetative symptoms

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A Clinical Trial of Complicated Grief Treatment

16 sessions

- ▶ Sessions 1 – 3: history, daily grief monitoring, education
- ▶ Sessions 4 – 9: memories and pictures
- ▶ Sessions 10 -16: imaginal conversation with deceased

JAMA Psychiatry. (2016) 73(7): 685–694

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Complicated Grief Treatment trial

- n = 395 (4 sites)
- Decedent Age = 53 +/- 14
- ~ 33% violent death (accident, suicide)

NNT = 3.6

SSRI did not improve outcome

JAMA Psychiatry. 2016 Jul 1; 73(7): 685–694.

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Geriatric syndrome: Late Life Depression

- Older adults may be preoccupied with somatic symptoms and less frequently report depressed mood
  - Among those who do not acknowledge sustained sadness, anhedonia for at least 2 weeks is necessary for a diagnosis of major depressive disorder

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Geriatric syndrome: Late Life Depression

- Diagnosis of depression in physically ill older adults is confounded by the overlap among symptoms of major depressive disorder and somatic illness
  - "Mood disorder due to a general medical condition" should be used for patients with depression that appears to result directly from a specific medical condition

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SCREENING

9-Item Patient Health Questionnaire (PHQ-9)

- 9 items cover diagnostic criteria for major depressive disorder
- Those who acknowledge thinking they would be "better off dead" or "hurting themselves" should be asked about presence of a firearm in the home
- Initial 2 questions (PHQ-2) can be used for screening
- Serial administrations can be used to reliably assess response to treatment

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SCREENING

PHQ-9 score	Depression severity	Clinician response
1–4	None	None
5–9	Mild to moderate	If not currently treated, rescreen in 2 weeks. If currently treated, optimize antidepressant and rescreen in 2 weeks
10–14	Major depressive disorder	Start antidepressant therapy
≥15	Major depressive disorder	Start antidepressant therapy; obtain psychiatric consultation if suicidality or psychosis suspected

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SCREENING

Geriatric Depression Scale (GDS)

- 15-items, Yes/No format
- Free of somatic and sleep queries
- Lacks suicidal ideation query
- Not useful for assessing treatment response

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Bipolar Disorder

- Prevalence low but numbers are increasing
- Do not 'burn out' in old age
- Longer episodes and shorter intervals between
- Less intense, more hostility & irritability

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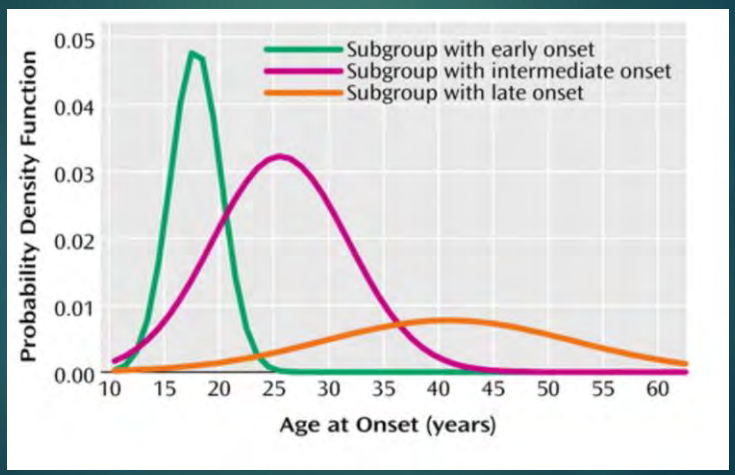
Incidence relative to age



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Bipolar Disorder

DSM-5 criteria

- type I (mania with or without depression)
- type II (major depressive disorder without mania but with hypomania)
- criteria unchanged with age

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Bipolar disorder

- Manic episodes may present with confusion, disorientation, distractibility, and irritability rather than with elevated, positive mood
  - Inflated self-esteem, grandiosity, and contentious claims of certainty
- Presence of psychosis, sleep disturbance, and aggressiveness may lead to mistaken diagnosis of dementia or depressive disorder

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Bipolar Disorder

- Late-onset mania often associated with medical disorders (stroke, small vessel dx, dementia, brain atrophy or hyperthyroidism) or medications (antidepressants, steroids, stimulants)
- Excessive use of alcohol or tobacco
- Inquire about history of understated hypomania episodes

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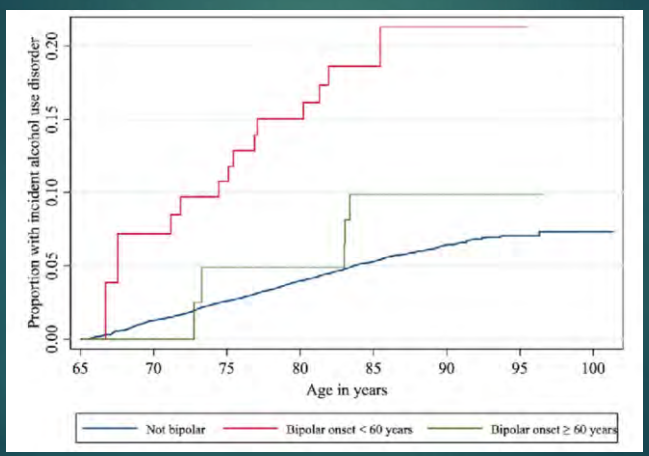
Alcohol disorder increases with age and bipolar history



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Bipolar disorder

- Bipolar disorder type II characterized by recurrent major depressive episodes interspersed with periods of hypomania
- Past episodes of hypomania may be unrecognized by patient and family
- Mixed states occur in which criteria for both mania and major depressive disorder are present

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Bipolar summary

- Few fully recover despite symptom remission
- Mania causes hospitalization more, but depression accounts for more disability

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Psychotic depression

- Patients have sustained, fixed, false beliefs (delusions) in association with depressed mood
  - Delusions are often plausible and focused on physical or medical preoccupations
- Suspect when the irrational belief focuses on somatic symptoms or around fears of a serious physical condition when no medical evidence can be identified to support the belief
- Patients often visit multiple specialists and obtain repeated testing

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TREATMENT: OVERVIEW

- 50% of patients with major depressive disorder respond to initial antidepressant treatment
  - Additional 1/3 recover when switched to another agent or combined with a second antidepressant or psychotherapy
  - 40-60% of those who recover experience recurrence
- Current approach to mood disorders in late life:
  - Aggressive acute phase of treatment to bring about remission
  - Continuation treatment for an additional 6 months after symptom remission to prevent relapse
  - Maintenance treatment to prevent recurrence

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FIRST WEEKS OF TREATMENT

- 4 weeks is adequate to identify those patients who at 12 weeks will be nonresponders or partial responders
  - At 4 weeks, 1/3 will be nonresponders, 1/3 will have responded fully, and 1/3 partially
- A visit or phone call within the first 10 days to insure adequate dosage and adherence and at week 4 may help identify patients who ultimately will not respond to initial treatment

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ANTIDEPRESSANTS FOR OLDER ADULTS

- Selective Serotonergic Reuptake Inhibitors (SSRIs)
- Selective Serotonergic and Noradrenergic Reuptake Inhibitors (SSRI/SNRIs)
- Tricyclic Antidepressants (TCAs)
- Others

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SSRIs

Drug	Initial Dosage	Final Dosage	Comments/Precautions
Citalopram	10 mg qam	20 mg qam	Risk of Qtc prolongation in doses >20 mg, nausea, tremor, hyponatremia, serotonin syndrome
Escitalopram	10mg qam	10-20 mg qam	Nausea, tremor, serotonin syndrome; reduce dosage in renal insufficiency
Sertraline	25mg qam	100-200 mg qam	Nausea, tremor, insomnia, serotonin syndrome

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SSRIs/SNRIs

Drug	Initial Dosage	Final Dosage	Comments/Precautions
Duloxetine	20-30 mg qam	60mg qam	Drug interactions (CYP1A2, -2D6 substrate); chronic liver disease, alcoholism, increased serum transaminase; reduce dosage in renal insufficiency Int J Clin Pract. 2007 Aug; 61(8): 1283–1293
Venlafaxine XR	37.5-75 mg qam	75-225 mg qam	Mild hypertensive; headache, nausea, vomiting; do not stop abruptly; reduce dosage in renal insufficiency
Vortioxetine	5mg qam	10-20 mg qam	Nausea; no data available on doses >5mg in older adults

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TCAs AND OTHER ANTIDEPRESSANTS

Drug	Initial Dosage	Final Dosage	Comments/Precautions
TCAs			
Nortriptyline	10-25 mg qhs	25-100 mg qhs	Glaucoma, prostatic disease, diabetes; may be fatal in overdose; therapeutic window 50-150 ng/mL serum level
Other Antidepressants			
Bupropion	75mg q12h 150 mg qam	150-300 mg 300 mg extended release qam	Agitation, insomnia, seizures
Mirtazapine	7.5mg qhs	15-45 mg qhs	Dry mouth, weight gain, potential for neutropenia, reduce dosage in renal insufficiency

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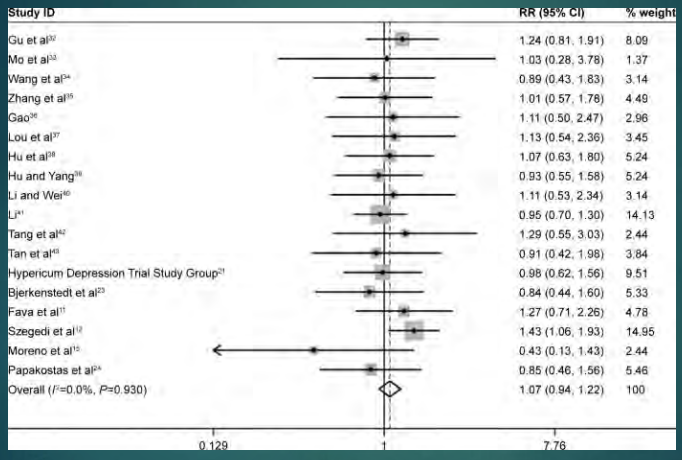
St. John's Wort = SSRI



Neuropsychiatr Dis Treat. 2016; 12: 1715–1723

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Prescriber response guidelines at 4 weeks based on PHQ-9

Sequenced Treatment Alternatives to Relieve Depression (STAR*D) Studies

PHQ-9 score or change	Outcome	Clinician response
No decrease or increase	Nonresponse	Switch medication
Decrease of 2–4 points	Partial response	Add medication
Decrease of ≥5 points	Response	Maintain medication
Score <5	Remission	Maintain medication

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SSRI and SNRI side effects

- hyponatremia with serum sodium of less than 130 mmol/L
  - 0.06% to 2.6% for SSRIs (e.g., fluoxetine)
  - 0.08% to 4.0% for the SNRI venlafaxine

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SSRI and SNRI side effects

- Falls and Fractures
- Canadian study 6600 post menopausal women HR 1.88 for fragility fractures (Osteoporos Int 2014;25(5):1473–81.)

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CLINICAL SIGNS AND SYMPTOMS OF SEROTONIN SYNDROME

- Cognitive and behavioral changes: agitation, hyperactivity, worsening confusion, restlessness
- Diaphoresis
- Diarrhea and GI upset
- Fever usually >100.5°F
- Hyperreflexia with or without myoclonus
- Incoordination, ataxia, or new onset falls
- Ocular clonus
- Rhabdomyolysis
- Shivering
- Seizures
- Tremor

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TREATMENT OF PSYCHOTIC DEPRESSION

- SSRI plus anti – psychotic effective in >60% of geriatric patients
- Electroconvulsive therapy (ECT)

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PHARMACOTHERAPY OF MANIA: DIVALPROEX

First-choice for treatment

- Therapeutic level of 50-100 mcg/mL
- If little to no response after 2 weeks, drug trial failed
- Inhibits hepatic enzymes
- CBC with PLT, AST, ALT, amylase should be performed at initiation of treatment, dose increase, and at least every 6 months

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PHARMACOTHERAPY OF MANIA: ANTIPSYCHOTICS

- Second-generation antipsychotics
-
- Since response to divalproex requires at least 3-week period, may use if mania is exhausting or associated with overly aggressive behavior

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PHARMACOTHERAPY OF MANIA: LITHIUM

- Do not stop or switch if Li++ is working
- Frequent reasons for discontinuation:
  - Diabetes insipidus, hyperglycemia, thyroid abnormalities, severe tremor, confusion, heart failure, arrhythmia, psoriasis
- Toxicity can occur at plasma concentrations below therapeutic threshold of 1 mEq/L
  - Manifestations: GI complaints, ataxia, slurred speech, delirium, coma
  - Mild tremor and nystagmus without functional consequences are frequent and should not be considered signs of toxicity

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PHARMACOTHERAPY OF BIPOLAR DEPRESSION

- Mood stabilizers are preferable to antidepressants for late-life bipolar depression
  - Antidepressants should be used with caution due to risk of manic
- Lamotrigine is preferable to lithium, divalproex, and carbamazepine due to its adverse-event profile and the likelihood of drug interactions

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ELECTROCONVULSIVE THERAPY (ECT)

Dr. Charles Welch, a psychiatrist who treats Kitty Dukakis, demonstrates bilateral placement of electrodes in electroconvulsive therapy in a treatment room at McLean Hospital in Belmont. —*M. Scott Brauer / The New York Times*

- Treatment for major depression & mania
- 1st line treatment for suicide risk and inanition
- 1st-line for delusional depression; response rates ~80%
- 2x weekly x 4 weeks

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REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (rTMS)

- In a meta-analysis (n = 6) ECT showed greater remission rates than rTMS
- Older adult response is not as robust

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PSYCHOTHERAPY

- Individualize standard approaches
  - Cognitive-behavioral therapy
  - Interpersonal psychotherapy
  - Problem-solving therapy
- Combined with an antidepressant, has been shown to extend remission after recovery
- Watch for caregiver depression

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Alternative Interventions

- Duke study: Aerobic exercise equivalent to SSRI
-
- N=150, age 50 – 77
- 16 weeks, 75% HRmax walking 3x weekly
- Measured Hamilton Depression Scale and Becks Inventory

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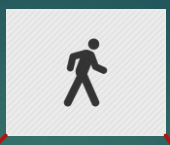
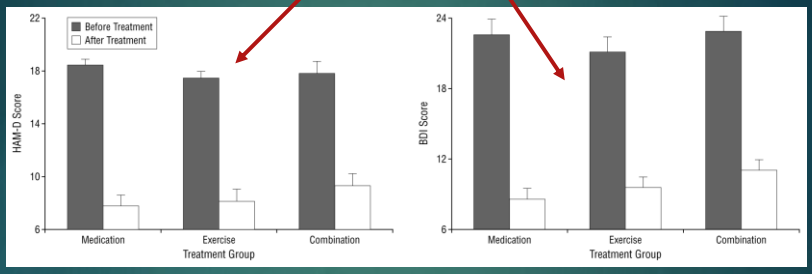
Role of Exercise





Hamilton Depression Score

Beck Depression Inventory

Arch Intern Med. 1999;159(19):2349-2356. doi:10.1001/archinte.159.19.2349

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Behavioral Health interventions

- Intensive psychosocial interventions
  - Family-focused treatment
  - Interpersonal and social rhythms therapy
  - Cognitive-behavioral therapy
- Behavioral health managers
  - More often being used to manage depression through a disease management model

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Ethno Geriatric considerations

Compared to white, non – Hispanic elderly, Native Americans are less adherent to SSRI treatment for depression.

True

False

64

Ethno Geriatric considerations

Compared to white, non – Hispanic elderly, Native Americans are less adherent to SSRI treatment for depression.

True

False

Depress Anxiety. 2016 Aug; 33(8): 765–774.

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Caregiver Self-Assessment Questionnaire

How are YOU?

Caregivers are often so concerned with caring for the relative's needs that they lose sight of their own well-being. Please take just a moment to answer the following questions. Once you have answered the questions, turn the page to do a self-evaluation.

During the past week or so, I have …

1. Had trouble keeping my mind on what I was doing…. ☐Yes ☐No
2. Felt that I couldn't leave my relative alone…….. ☐Yes ☐No
3. Had difficulty making decisions…….. ☐Yes ☐No
4. Felt completely overwhelmed…….. ☐Yes ☐No
5. Felt useful and needed …….. ☐Yes ☐No
6. Felt lonely…….. ☐Yes ☐No
7. Been upset that my relative has changed so much from his/her former self…… ☐Yes ☐No
8. Felt a loss of privacy and/or personal time…….. ☐Yes ☐No
9. Been edgey or irritable…….. ☐Yes ☐No
10. Had sleep disturbed because of caring for my relative…… ☐Yes ☐No
11. Had a crying spell(s)…….. ☐Yes ☐No
12. Felt strained between work and family responsibilities… ☐Yes ☐No
13. Had back pain…….. ☐Yes ☐No
14. Felt ill *(headaches, stomach problems or common cold)*…… ☐Yes ☐No
15. Been satisfied with the support my family has given me…….. ☐Yes ☐No
16. Found my relative's living situation to be inconvenient or a barrier to care…….. ☐Yes ☐No
17. On a scale of 1 to 10, with 1 being "not stressful" to 10 being "extremely stressful," please rate your current level of stress. _____
18. On a scale of 1 to 10, with 1 being "very healthy" to 10 being "very ill," please rate your current health compared to what it was this time last year. _____

Comments:
(Please feel free to comment or provide feedback.)

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Campaign to End Loneliness Scale

1. I am content with my friendships and relationships
2. I have enough people I feel comfortable asking for help at any time
3. My relationships are as satisfying as I would want them to be

Rate 0 – 4 (0 = strongly agree)

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SUMMARY

- Initial response to medication, first 4 weeks
- Trials of more than one antidepressant or combination therapy with two antidepressants may be required before remission is achieved
- Executive cognitive dysfunction is easily assessed and when present predicts poor response to medication as well as the need for adapted psychotherapy

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SUMMARY

- Exercise reduces depressive symptoms and should be prescribed for all depressed older adults who are capable of increasing their level of physical activity
- Bipolar depression in older adults may be more common than previously thought and should be treated with a mood stabilizer rather than an antidepressant

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CASE 2 (1 of 3)

82F follow-up clinic visit related to depression.

- She has had a partial response to mirtazapine, despite adequate dosage and duration of therapy.
- She continues to spend much time in bed, is deconditioned, and has fallen twice.
- Since beginning therapy, she has gained weight and is finding it difficult to control her diabetes.

- During today's visit, she describes hopelessness and sometimes believes that she would be better off dead.
  - She denies any intent or plan to kill herself.
  - She reports frequent arguments with her unemployed son about finances.
- There is no skilled provider for cognitive-behavioral therapy in the area.

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CASE 2 (2 of 3)

Which one of the following treatment options should be considered next?

A. Hospitalization and electroconvulsive therapy
B. Referral for transcranial magnetic stimulation
C. Augmentation with bupropion
D. Switch from mirtazapine to duloxetine
E. Referral for family therapy

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CASE 2 (3 of 3)

Which one of the following treatment options should be considered next?

A. Hospitalization and electroconvulsive therapy
B. Referral for transcranial magnetic stimulation
C. Augmentation with bupropion
D. Switch from mirtazapine to duloxetine
E. Referral for family therapy

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CASE 3 (1 of 4)

- A 73-year-old woman comes to the office for follow-up. She was last seen 1 week ago, a few days after her husband's death from end-stage renal disease and metastatic cancer.
  - She had been his sole caregiver for the last 3 years and handled all medical and practical decisions in his last days.
  - She was distressed and barely able to speak.
  - She was sleeping poorly, had lost weight, and felt isolated and unable to function.
  - She declined medication to help her sleep and agreed to return in a few days for follow-up.

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CASE 3 (2 of 4)

- Today, she is calmer, but she still cries easily, cannot sleep, and is unable to concentrate.
  - She realizes that she neglected her health during her husband's illness and wants to start taking care of herself, but she has a feeling of futility at the idea of engaging in any activity.
  - She states that she has no active or passive suicidal ideation.
- She has no children or other family, and she neglected friendships because of the demands of caregiving.
- History: hypertension, osteoarthritis, hypercholesterolemia

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CASE 3 (3 of 4)

Which one of the following is the most appropriate course of action?

A. No treatment is necessary for normal grief reaction.

B. Start treatment with an antidepressant if she shows no improvement in 2 weeks.

C. Consider psychiatric diagnosis unrelated to grief.

D. Encourage her to start seeing friends.

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CASE 3 (4 of 4)

Which one of the following is the most appropriate course of action?

A. No treatment is necessary for normal grief reaction.

B. Start treatment with an antidepressant if she shows no improvement in 2 weeks.

C. Consider psychiatric diagnosis unrelated to grief.

D. Encourage her to start seeing friends.

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