

Managing Residents' Depression with Medications

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Objectives:

- 1. Compare unique features of antidepressant agents used to treat depression in elderly residents.
- 2. Establish monitoring approaches to assure the optimal use of antidepressants for elderly depressed residents.
- 3. Recognize medications that may precipitate depression in the elderly resident.
- 4. Describe the pharmacologic management of anxiety that often accompanies depression.

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What factors influence the choice of antidepressant?

- Efficacy
- Side effects – tolerability
- Safety – overdose
- Drug interactions
- Dosing
- Age related impact



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Selective Serotonin Reuptake Inhibitors (SSRIs)

Generic	Trade Name
Citalopram	Celexa
Escitalopram	Lexapro
Fluoxetine	Prozac
Fluvoxamine	Luvox
Paroxetine	Paxil
Sertraline	Zoloft

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Where do SSRIs fit in the management of depression?

- Preferred agents because of tolerability
- Mechanism of Action –
- Side effects –
 - D/C rate 1/2 – 2/3 of Tricyclic antidepressants (TCAs)



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What type of side effects occur with SSRIs?

- Do **NOT** affect:
 - Cholinergic
 - Anticholinergic effects
 - Histamine
 - Sedation
 - Adrenergic
 - Postural hypotension
 - Cardiac conduction
 - Cognition

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SSRIs – Do Cause

- Most common
 - GI
 - Sweating
 - Sexual dysfunction
- Other
 - Headache
 - Insomnia
 - Fatigue
 - Weight loss
 - Agitation
 - Anxiety
 - Paxil
 - Anticholinergic
 - SIADH
 - Extrapramidal symptoms
 - Seizures
 - GI bleeding
 - Bradycardia

Are there any special considerations in dosing SSRIs?

- Pharmacokinetics – half-life
 - Fluoxetine (Prozac®)
- Dosing
 - ½ dose on start
 - Dose range in the elderly
- Discontinuing therapy
 - Do NOT do it abruptly
 - Symptoms
 - Fatigue, nausea, abdominal cramps, diarrhea, shortness of breath, memory problems, chills, tinnitus, dizziness, headache, ataxia, insomnia, abnormal sensations
 - Resolution

Drug Interactions

•Prozac® > Paxil® > Zoloft® > Celexa®

Antidepressant (Trade Name)	Affected Medication
Prozac	Benzodiazepine
Prozac, Paxil, Zoloft	Antipsychotic agents
Prozac, Paxil	TCAs
Zoloft	TCAs (less than above)
Prozac, Paxil	Coumadin®
Prozac, Paxil	Digoxin
Prozac	Astemizole, Terfenadine
SSRIs	NSAIDs

Serotonin Syndrome

- Features
 - Myoclonus
 - Diarrhea
 - Confusion
 - Hypomania
 - Agitation
 - Hyperreflexia
 - Shivering
 - Incoordination
 - Fever
 - Diaphoresis
- Mild to fatal
- Causes – SSRIs, MAO Inhibitors, TCAs
- Mechanism

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Tricyclic Antidepressants (TCAs)

Generic Name	Trade Name
Amitriptyline	Elavil
Clomipramine	Anafranil
Desipramine	Norpramin
Doxepin	Sinequan
Imipramine	Tofranil
Nortriptyline	Aventyl, Pamelor
Protriptyline	Vivactil
Trimipramine	Surmontil

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Why aren't TCAs used as much anymore?

- Mechanism of action
- Side Effects
 - Anticholinergic
 - Dry mouth
 - Constipation
 - Blurred vision
 - Urinary retention
 - Dizziness
 - Tachycardia
 - Memory impairment
 - Delirium
 - Orthostatic hypotension
 - Sedation
 - Increase appetite
 - Perspiration
 - Sexual dysfunction
 - Heart conduction effects
 - Falls

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Are there differences between TCAs?

- Agents that are not to be used:
 - Amitriptyline
 - Doxepin
- Preferred TCAs
 - Desipramine
 - Nortriptyline

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Are there any dosing issues with TCAs?

- Pharmacokinetics
 - Metabolism
 - Half-life
- Dosing Most TCAs
 - Start
 - Titrate
 - Response may be delayed
- Levels
- Abrupt D/C – Cholinergic rebound
- Taper

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TCA Drug Interactions (examples)

<ul style="list-style-type: none"> • Agents increasing TCA levels <ul style="list-style-type: none"> – SSRIs – Haloperidol – Phenothiazines 	<ul style="list-style-type: none"> • Affect Action <ul style="list-style-type: none"> – Anticholinergic agents – Insulin – Oral hypoglycemics – Phenytoin – Sedatives – Thyroid
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**Venlafaxine
(Effexor®)**

- Mechanism of Action
- Indications – Depression
 - XR
 - Generalized Anxiety Disorder
 - Social Phobia

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Effexor®

- Side Effects

– Nausea	– Nervousness
– Constipation	– Sweating
– Somnolence	– Impact ejaculation/orgasm
– Dry mouth	– Anorexia
– Dizziness	– Blood pressure
- Drug Interactions – Minimal
Cimetidine and MAO inhibitors

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Duloxetine (Cymbalta®)

- Mechanism of Action
- Indications
- Side effects

– Nausea	– Increased sweating
– Dry mouth	– Sexual effects
– Constipation	– Nightmares
– Insomnia	– Blood pressure
– Dizziness	– Liver function tests
– Fatigue	

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Trazodone (Desyrel®) & Nefazodone (Serzone®)

- Mechanism of Action
- Trazodone Side effects
 - Orthostatic hypotension
 - Sedation
 - Cognitive slowing
 - Dizziness
 - Priapism
- Nefazodone Side effects
 - **Liver FAILURE**
 - Don't use in active liver disease
 - Dizziness
 - Orthostatic hypotension
 - Dry mouth
 - Nausea

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Bupropion (Wellbutrin®)

- Mechanism of Action – Dopamine
- Side effects
 - Dizziness
 - Nausea, vomiting
 - Dry mouth
 - Constipation
 - Tremor
 - Insomnia
 - Seizures – associated with dose
- Drug Interactions
 - MAO inhibitors
 - Meds affecting seizure threshold
 - Levodopa

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Remeron® (Mirtazapine)

- Mechanism of Action
- Side effects:

Most common	- Agranulocytosis
- Somnolence	- Liver function test elevation
- Weight gain	
- Dry mouth	
- Constipation	
- Drug interactions – Similar to TCAs

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Monoamine Oxidase Inhibitors

- Agents
 - Phenelzine
 - Tranylcypromine
- Mechanism of Action
- Side effects
 - Postural hypotension
 - Anticholinergic
 - Sedation versus stimulation
 - Sexual function
 - Fever
 - Hypertensive Crisis
 - Foods
 - Medications

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Selegiline (Emsam®)

- MAO Inhibitor
- Patch (applied daily)
- At lowest dose, it doesn't need dietary restrictions (6 mg/24 hrs)
- Side effects
 - Skin rash
 - Light headedness – orthostatic hypotension

Herbal Products

- Issues related to herbals
- St John's Wort
 - Conflicting data on efficacy
 - Drug interaction
 - Digoxin

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Stimulants

- Agents
 - Dextroamphetamine
 - Methylphenidate
- Effect on symptoms
- Onset
- Side effects

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What should be considered when creating a care plan for a resident with depression?


- Medications as a cause
- Agent selection
- Target symptoms
- Goal of therapy is remission



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How are antidepressants monitored?

- Medication adjustment
 - Start low
 - Titrate to full effect
 - Side effects
 - Age
 - Comorbid conditions
 - Evaluate
 - Efficacy
 - Side effects
 - Frequency of evaluation



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Adjusting Treatment Based on Response

• Acute Treatment takes 1st 3 months
 • 6-8 weeks evaluate

¹

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    graph TD
      AD[Antidepressant (AD)] --> NR[No Response]
      AD --> PR[Partial Response]
      AD --> FR[Full Response]
      NR --- NR_actions["-Change AD  
-Add or Change Psychotherapy  
-ECT"]
      PR --- PR_actions["-Change dose  
-Augment  
-Change AD  
-Add or change Psychotherapy  
-ECT"]
      FR --- FR_actions["- Continuation Phase"]
      NR --- Reassess["4-8 weeks reassess"]
      PR --- Reassess
  
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• Michigan Quality Improvement Consortium Guidelines
 - Unsatisfactory response at 6 wks of max dose – switch AD

¹ Practice guideline for the treatment of patients with major depression. APA 2000 ²⁸

Continuation/Maintenance Phase

- Duration – May need to be longer in the elderly
 - *AMDA*¹ (based on NIH Consensus panel of late life depression - 1991)
 - 1 episode - 6 mo. past recovery
 - Recurrent - Minimum 12 mo. past recovery
 - *Expert Consensus Guidelines – Depression in Older Adults-2001*²
 - 1 episode – Majority would treat 1 year
 - 2 – Vary in length
 - ≥3 – Majority would treat 3 years (98%)
- Prevents relapse and recurrence
- Same dose

¹ JAMDA.2003;4(2):S61-8
² Postgraduate Medicine Special Report 2001;1-86

²⁹


How can side effects of antidepressants be monitored?

- Observe resident for any changes
- Be aware of the most common side effects of the antidepressant given

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What needs to be considered when stopping treatment?

- Chance of recurrence
- Frequency of depression
- Severity
- Persistence of symptoms
- Comorbid conditions
- Patient preference



What medications can potentially precipitate depression?

- CNS
 - Benzodiazepines
- Cardiovascular
 - Beta blockers – Propranolol
 - Clonidine (Catapres®)
 - Digoxin
- Steroids
 - estrogen, corticosteroids, anabolic
- Parkinson's disease meds
 - Levodopa (Sinemet®)
 - Bromocriptine (Parlodel®)
- Anticonvulsant
 - Carbamazepine (Tegretol®)
 - Phenytoin (Dilantin®)
- Nonsteroidal Anti-inflammatory Drugs (NSAIDs)



Is there a relationship between anxiety and depression?

- Elderly patients with major depression
 - 65% have symptoms of anxiety
 - 48% have an anxiety disorder
- Elderly patients who have a generalized anxiety disorder
 - 70% have major depression
- Psychotic depression – can appear anxious
- Anxiety can occur from withdrawal of benzodiazepines

Anxiety and Depression

- Anxiety disorders with Depression
 - Greater severity of depression
 - Poorer social functioning
 - Greater somatic complaints
- Anxiety typically improves with treatment of depression
- Treatment response
 - Often delayed
 - Antidepressants somewhat reduced effectiveness
 - If anxiety persists – relapse is more likely

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Are there special considerations for residents with anxiety and depression?

- Psychotherapy or medication
- Agents
 - Antidepressants – 1st line treatment
 - FDA approved medications
 - Venlafaxine
 - Paroxetine
 - Escitalopram
 - SSRIs and TCAs
- Non-responders

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Anxiety and Depression Treatment

- Benzodiazepines
 - Do NOT use alone
 - Will not treat depression
 - Could worsen depressive symptoms
 - Use with antidepressants
 - Little information
 - Risk – Benefit
 - Risk – cognitive, psychomotor, gait instability
 - Use short half-life agents
 - May see used as adjunct in early treatment
 - Taper when anxious symptoms improve
- Buspirone

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Many options are available for the management of depression in the elderly. It is important to assure goals are met and side effects are avoided.

Monitoring should include evaluating medications as a cause of the depression, assuring information on efficacy is conveyed in a timely manner, and evaluating residents for side effects.

Anxiety often accompanies depression and can make management more difficult. Antidepressants are the drugs of choice and as the depression improves, anxiety symptoms will also abate.

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