MEDICAL MANAGEMENT OF DEMENTIA

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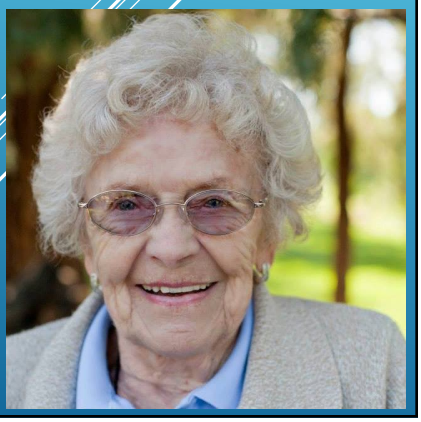


OBJECTIVES

- Identify deprescribing opportunities in the care of dementia
- Describe the non- pharmacological treatments of dementia and behaviors in dementia
- Discuss the medication management of dementia and neuropsychiatric symptoms of dementia

TREAT TREATABLE CAUSES FIRST

- Deprescribe in cases of polypharmacy or overtreatment
- Remove medication that can contribute to cognitive changes
- Treat anxiety and depression as mimic dementia
- Assess and treat thyroid d/o and vitamin b12 deficiency
- Control underlying chronic diseases

Disease	Differences from AD	Treatment Notes
Common Irreversible Causes		
MCI	No interference with work or social functions 1 in 5 progress to AD	Eliminate or control risk factors for dementia May use CIs, which reduced risk of progression by 40% in one study
Vascular dementia	Includes focal neurological signs and symptoms Radiologic evidence of stroke Onset within 3–6 mo of stroke Abrupt deterioration followed by stepwise progression	Control of cardiac and vascular risk factors CIs and memantine not effective
Lewy body dementia	Fluctuating cognition with pronounced variation in attention and alertness Recurrent visual hallucinations Motor features of PD	Especially avoid typical antipsychotics, which may worsen motor symptoms May use CIs
Dementia of advanced PD	PD onset predates cognitive impairment Usually at latter stages of PD	Especially avoid typical antipsychotics, which may worsen motor symptoms May use CIs
Frontotemporal dementia	Affects personality, behavior, self-care, and language Onset in ages 45–65 with a 2- to 10-yr course	CIs may worsen behavior and cause agitation SSRIs or trazodone may be beneficial

GOALS OF TREATMENT

- Symptomatically treat cognitive difficulties and preserve function for as long as possible
- Manage psychiatric and behavioral symptoms
- Current treatments have not been shown to prolong life or cure AD or halt or reverse the pathophysiologic processes of the disorder
- Goal is to slow decline and delay need for long term care placement

CHOLINESTERASE INHIBITORS (DONEPEZIL, RIVASTIGMINE GALANTAMINE)

- Recent Systematic Review of efficacy found when compared to placebo small reduction in the average amount of worsening in cognitive function at standard dose (donepezil 10mg)
  - Numbers on Alzheimer's Disease Assessment Scale but still ?clinical importance (no change in function at home or delay to higher level of care)
- Recommend for both mild-moderate dementia
- Greater harms especially at highest doses (donepezil 23mg)
  - Diarrhea 15% Can trial rivastigmine patch usual tolerate
  - Bradycardia
- Greater benefit seen in Lewy Body Dementia compared to AD more variable benefit in vascular dementias

Drug	Starting Dose	Maintenance Dose	Dosage Forms	Pharmacologic Properties	Comments
Cholinesterase Inhibitors					
Donepezil	5 mg daily	10 mg daily May increase to 23 mg/day	Tablets Orally disintegrating tablets	Acetylcholinesterase inhibitor; metabolized in part by CYP2D6 and CYP3A4 Protein binding 96%	Labeled for mild to moderate and moderate to severe AD
Rivastigmine	1.5 mg twice daily 4.6-mg patch daily	3–6 mg twice daily 9.5-mg patch daily; may increase to 13.3-mg patch daily	Capsules Oral solution Transdermal patch	Acetyl- and butyryl-cholinesterase inhibitor Nausea, vomiting, and diarrhea seem more intense than with other CIs	Labeled for mild to moderate and moderate to severe AD as well as mild to moderate dementia with Parkinson disease Skin reactions with patch
Galantamine	4 mg twice daily	8–12 mg twice daily 8–24 mg ER once daily	Tablets Oral solution ER capsules	Selective competitive, reversible acetylcholinesterase inhibitor and nicotine receptor modulator Metabolized in part by CYP2D6 and CYP3A4	Preferable to administer with food Renal dosing adjustment necessary
Glutamatergic Therapy					
Memantine	5 mg once daily 7 mg ER once daily	10 mg twice daily 28 mg ER once daily	Tablets Oral solution ER capsules	*N*-methyl-D-aspartate receptor antagonist that blocks glutamate transmission	Labeled for moderate to severe AD; may be used in combination with acetylcholinesterase inhibitors
Combination Product					
Donepezil/ memantine	10/28 mg once daily in the evening	10/28 mg once daily	ER capsule	Acetylcholinesterase inhibitor and *N*-methyl-D-aspartate receptor antagonist	Use after stabilized on donepezil and memantine separately Renal dosing adjustment necessary

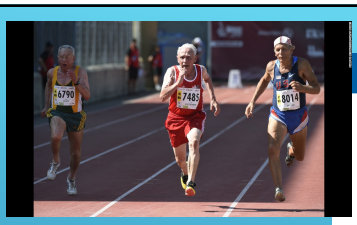
ER = extended release.

MEMANTINE

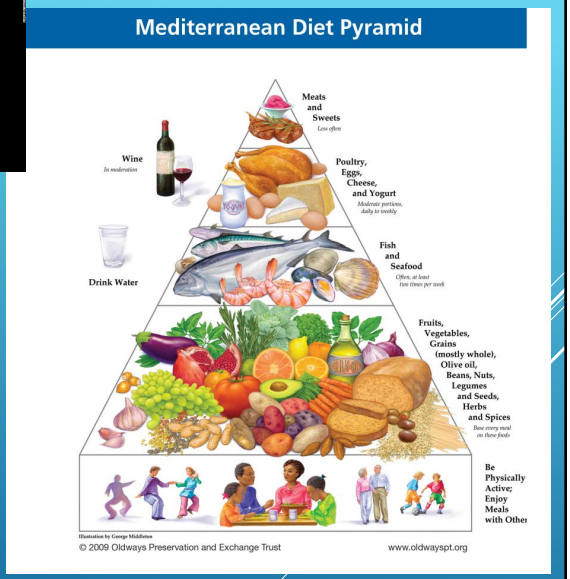
- When in combo with Cholinesterase Inh in Moderate Dementia low evidence favors drug vs placebo
- Well tolerated few se most common headache very rare worsened cognition
- Few small studies show some benefit in combo with cholinesterace inh in treating behaviors

SUPPLEMENTS

- Insufficient evidence for omega 3 fatty acid
- Insufficient evidence for ginkgo biloba
- Insufficient evidence for prevagen
- Insufficient evidence for Vitamin E supplementation
- Currently insufficient evidence to recommend medical foods (axona, souvenaid, cerefoliNAC)



- Mediterranean Diet
- Daily regular Exercise
- Social and Cognitive stimulation



GREATEST EVIDENCE

WHAT RESEARCH SAYS ABOUT DIET

- Mediterranean diet fights against both cardiovascular disease and dementia
  - Lean meats including fish mostly plant proteins
  - Good oils like olive oil, avocados, walnuts
  - High in fruits and veggies

NON PHARMACOLOGIC TREATMENT

- Behavioral and psychiatric symptoms are most challenging and distressing symptoms of disease and often are the determining factor in a family's decision to seek institutional care
- Care giver education and support programs delay time to placement (Alzheimer's dz assoc, memory café, caring for the caregiver)
- Behavior is the communication of an unmet need

BASIC PRINCIPLES OF CARE

- Ensure optimal vision, hearing
- Find optimal level of autonomy and adjust expectation for patient performance over time
- Avoid confrontation- redirect (meet them where they are)
- Maintain routine, structure
- Avoid tasks/activities that are too difficult-frustration
- Engage in activities stimulate (level appropriate)

TREAT BEHAVIORS

- Limit environmental triggers (noise, glare, distraction)
- Evaluate for pain, hunger, thirst, constipation, full bladder, fatigue, fear, underlying medical conditions etc
- Redirect
- Exercise, light therapy, music therapy, reminiscence therapy, aroma therapy, massage, pets, play (kids tool set, baking etc to fit history of hobbies)

PHARMACOTHERAPY OF NEUROPSYCHIATRIC SYMPTOMS

- Trial nonpharm intervention first (pain, dehydration, infection etc vs environmental overstim/fear etc)
- Some evidence for role of cholinesterase inh and memantine.
- SSRIs best citalopram and sertraline
- Short term use of trazodone or Seroquel
- Antipsychotics are not encouraged as side effects and mortality offset benefits (used for severe symptoms not responded to other means low dose for shortest duration possible)

DEPRESCRIBING CHOLINESTERACE INHBITORS

- **? Whether benefit after a year.**
- **Discontinue at advanced stages, taper if on higher doses**
- Deprescribing AChEIs was not associated with a significant increase in the likelihood for all-cause negative events and was associated with a reduced likelihood of falls and fractures in older NH residents with dementia. Our findings suggest that deprescribing AChEIs is a reasonable approach to reduce the risk of serious falls or fractures without increasing the risk for all-cause events. **J Am Geriatr Soc 68:699–707, 2020**

Thank You