Management of Behaviors in Dementia

Non-pharmacological and pharmacological approaches

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Disclosures

- I have no financial disclosures to report
- Discussion will include off-label use of medications

Advocate Memory Center Locations & Services

Advocate Lutheran General Hospital: Parkside Center 1875 Dempster St, Suite 520 Park Ridge, IL 60068 Phone: 847-720-6464 Fax: 847.720.6463 Open: Mon.– Fri., 8 a.m. – 5 p.m.	**Advocate Care Center** 2210 W 95th St. Chicago, IL 60643 Phone: 773-341-3500 Fax: 773-341-3501 Open: 1st Friday of the month, 9 a.m. – 5 p.m.	**Advocate Good Samaritan Hospital** 3825 Highland Ave, Tower 1, Suite 5b Downers Grove, IL 60515 Phone: 847-720-6464 Fax: 847-720-6463 Open: Mon. & Wed. (eff. 10/1/20) 8 a.m. - 5 p.m.

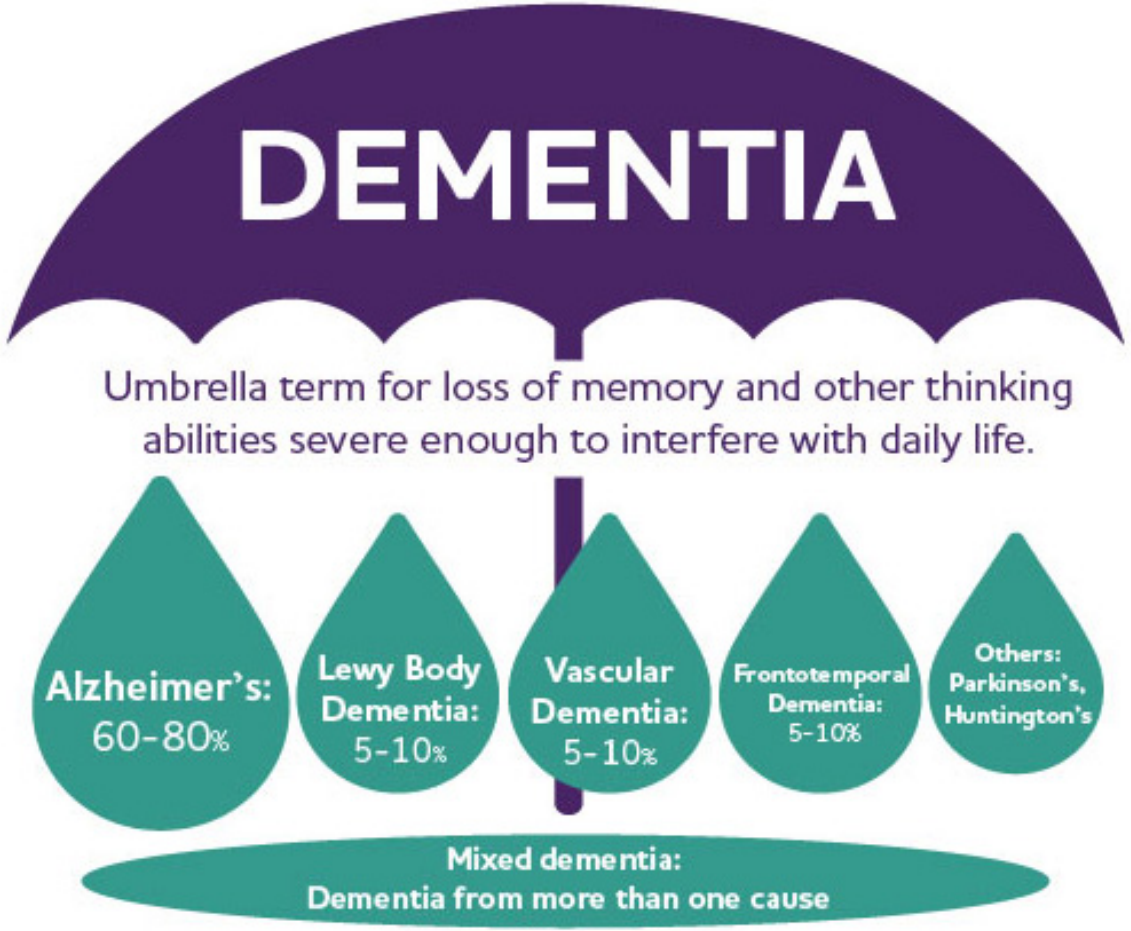
Services

- High-quality, patient-centered care to diagnosis the cause of memory loss and dementia, develop a plan of care, and offer support to patients and care partners
- Clinical research trials related to prevention and treatment of Alzheimer's disease

Conditions we treat

Diagnosis and treatment of disorders causing dementia, including:

- Mild cognitive impairment
- Alzheimer’s disease
- Lewy body dementia
- Vascular dementia
- Frontotemporal dementia
- Progressive aphasia
- Prion disease (Creutzfeldt-Jakob disease)
- Etc.


DEMENTIA
Umbrella term for loss of memory and other thinking abilities severe enough to interfere with daily life.
Alzheimer's: 60-80%
Lewy Body Dementia: 5-10%
Vascular Dementia: 5-10%
Frontotemporal Dementia: 5-10%
Others: Parkinson's, Huntington's
Mixed dementia: Dementia from more than one cause


All behavior is
communication

Overview and statistics

- Approximately 80-90% of patients with dementia experience a change in behavior
- Neuropsychiatric symptoms are commonly under-reported by patients and family members
- Prevalence often increases with disease severity
- Leads to greater functional impairment
- Often accelerates nursing home placement
- Screening for NPS should be performed at every follow-up visit for patients with dementia

Neuropsychiatric symptoms

Delusions	Hallucinations	Depression	Anxiety
Euphoria	Aggression	Apathy	Irritability
Disinhibition	Wandering	Pacing	Sleep disturbances

Evaluate for Underlying Causes

Evaluate for underlying cause

- Infection – UTI, pneumonia, COVID-19
- Metabolic abnormality
- Medication side effects
- Constipation
- Poor sleep
- Poor vision or poor hearing
- Fear
- Confusion
- **Pain**

Pain assessment

- Facial expressions
- Negative verbalizations or vocalizations
- Body movements or posture
- Changes in interpersonal reactions
- Changes in activity patterns
- Mental status changes

The Pain Assessment in Advanced Dementia (PAINAD) Scale*

Items	0	1	2	Score
Breathing independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation.	Noisy labored breathing. Long period of hyperventilation. Cheyne-Stokes respirations.	
Negative vocalization	None	Occasional moan or groan. Low-level speech with a negative or disapproving quality.	Repeated troubled calling out. Loud moaning or groaning. Crying.	
Facial expression	Smiling or inexpressive	Sad. Frightened. Frown.	Facial grimacing.	
Body language	Relaxed	Tense. Distressed pacing. Fidgeting.	Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out.	
Consolability	No need to console	Distracted or reassured by voice or touch.	Unable to console, distract or reassure.	
			Total	

**Warden V, Hurley Ac, Volicer L. Development and psychometric evaluation of the pain assessment in advanced dementia (PAINAD) scale. J Am Med Dir Assoc. 2003; 4:9-15.*

Initial Management Strategies

Assess risk of harm

- Is there immediate risk of harm to self or others?
- Call 911 – ask for paramedics, not police
- Implement safety strategies (e.g., increased level of supervision, door alarms for wandering, medical ID)
- Assess level of caregiver support and enlist additional assistance as needed (social work, Alzheimer's Association)

Tips for caregivers

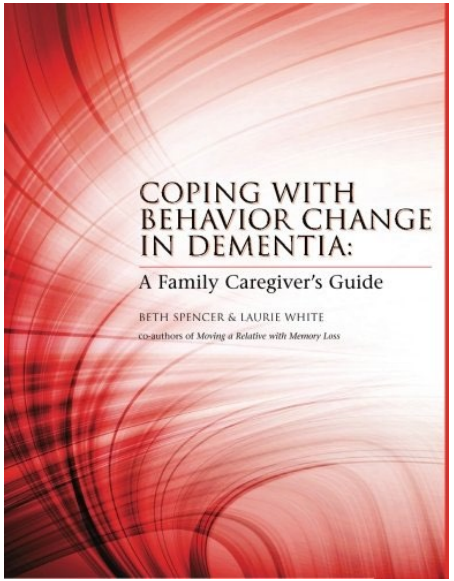
- Remain patient and calm
- Assess for environmental triggers
- Monitor personal comfort
- Simply tasks and routines
- Don’t argue or try to convince
- Focus on feelings, not the facts
- Duplicate any lost or “stolen” items
- Try not to take behaviors personally
- Accept behavior as a reality of the disease and try to work through it

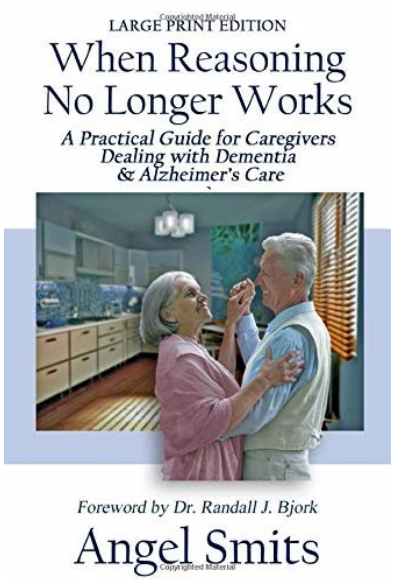
Caregiver support & education

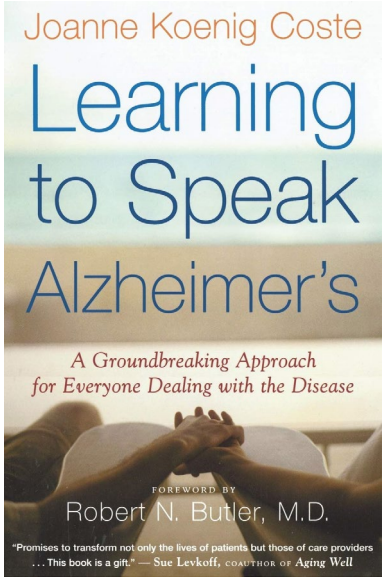
- Alzheimer's Association: http://www.alz.org; (800) 272-3900
- Alzheimer’s Association Knight Family Foundation referral
- Lewy Body Dementia Association: http://www.lbda.org
- Association for Frontotemporal Degeneration: https://www.theaftd.org
- Family Caregiver Alliance: https://www.caregiver.org
- Teepa Snow's Positive Approach to Care YouTube channel
- UCLA Caregiver Education Videos

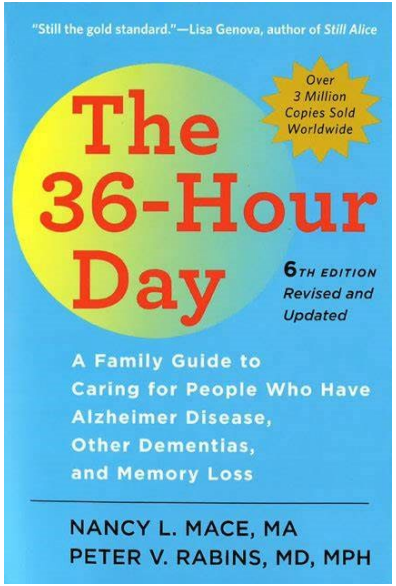
Caregiver support & education

Suggested reading



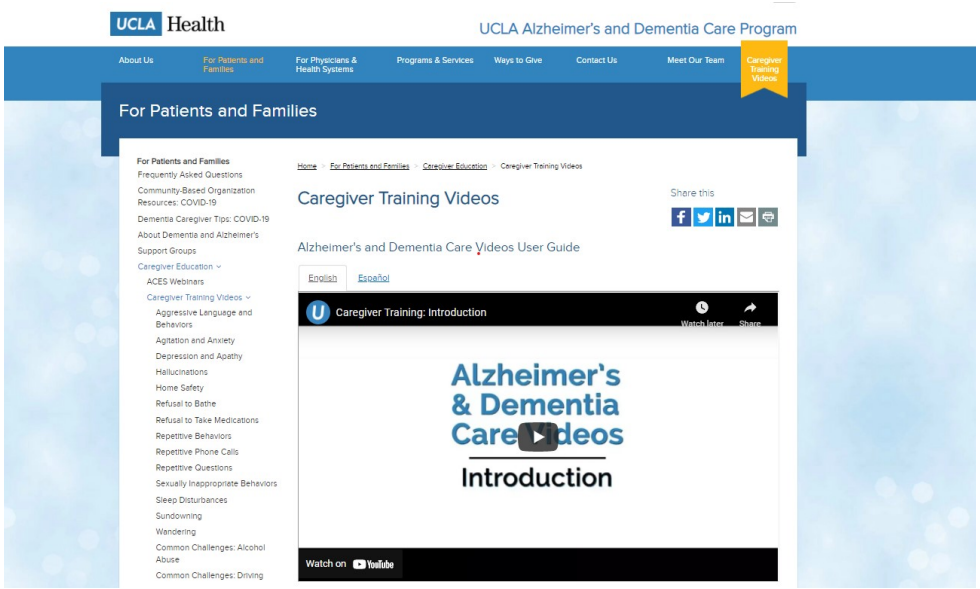






UCLA Caregiver Videos

https://www.uclahealth.org/dementia/caregiver-education-videos



Nonpharmacologic therapies

- Environmental modification (low-stimulation)
- Physical and occupational therapy
- Speech / cognitive therapy
- Structured exercise
- Tailored daytime activities – e.g., day program, classes
- Music therapy
- Art therapy
- Aromatherapy
- Bright light therapy
- Touch therapy

Pain management

- Physical therapy
- Acupuncture / acupressure
- Warm / cold compresses or heating pads (monitored)
- Relaxation and meditation
- Massage
- Stretching

Pharmacotherapy

Guiding principles

- Treatment is symptom specific
- Start low, go slow
- Avoid medications that may worsen memory and thinking
- Assess for anticholinergic burden - http://anticholinergicscales.es/
- Avoid drug interactions
- Make ONE medication change at a time
- Patient / family education re: risks and benefits

Antidementia drugs

- Cholinesterase inhibitors (donepezil, galantamine, rivastigmine) may be effective for BPSD
- Patients with Lewy body dementia may have a more beneficial response than patients with AD
- Memantine may cause diminished agitation and aggression
- More research is needed to determine effectiveness

Medication	Indication	Off-label Uses	Common SE
Donepezil	Mild to moderate to severe AD	Parkinson-related and Lewy body dementia	Nausea, diarrhea, insomnia, HA
Galantamine	Mild to moderate AD	Severe AD, Parkinson-related and Lewy body dementia	Nausea, vomiting, diarrhea, decreased appetite
Rivastigmine	Mild to moderate AD and Parkinson-related dementia	Lewy body dementia	Nausea, vomiting, diarrhea, agitation, falling
Memantine	Moderate to Severe AD	Mild to moderate Vascular dementia	Diarrhea, constipation, dizziness, confusion, HA
Memantine + Donepezil	Moderate to Severe AD	N/A	Nausea, vomiting, diarrhea, insomnia, dizziness, HA, constipation

Pain management

- Target symptom: pain
- Scheduled acetaminophen – 1000 mg TID
- Topical therapies (e.g., lidocaine, diclofenac gel if indicated)
- Antidepressants such as duloxetine, mirtazapine, or venlafaxine may also be helpful for both pain and mood
- Avoid: Narcotics, muscle relaxers, NSAIDS at lowest dose possible

Antidepressants

- Target behaviors: anxiety, depression, insomnia, aggressive behavior, compulsive behavior, apathy, hypersexual behavior
- Citalopram, escitalopram, sertraline, venlafaxine, mirtazapine, bupropion
- Buspirone sometimes used for anxiety
- Avoid benzodiazepines unless absolutely necessary
- Avoid paroxetine, amitriptyline, nortriptyline, desipramine, imipramine due to increased anticholinergic burden
- Use lowest effective dose for the shortest duration to minimize adverse effects

CNS stimulants

- Target behavior: severe apathy
- Methylphenidate used as an adjunctive therapy to an SSRI
- Start low – 5 mg daily, maximum 10 mg BID (last dose at lunchtime)
- Monitor for increased agitation or disrupted sleep

Sleep aids

- Target behavior: insomnia
- Melatonin, trazodone, low dose mirtazapine, ramelteon, suvorexant*
- In February 2020, suvorexant became the first medication approved for treating sleep disorders in AD
- Avoid: diphenhydramine-containing products or doxylamine (OTC), zolpidem and similar agents, hydroxyzine, and benzodiazepine drugs

Mood stabilizers

- Target symptom: agitation
- Used “off-label”
- Divalproex sodium, carbamazepine, lamotrigine, gabapentin, topiramate
- Laboratory monitoring needed on divalproex – CBC, LFTs, ammonia
- Risk of Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN)
- Studies have been inconclusive / mixed as to effectiveness
    - Carbamazepine has the most robust evidence of efficacy, but more RCTs are needed

Antipsychotics

FDA Black Box Warning 2008

- "Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death."
- Risk of death in drug-treated patients between 1.6-1.7 times the risk of death in placebo-treated patients
- Causes of death appeared to be either cardiovascular (heart failure, sudden death), or infectious (pneumonia)
- Antipsychotics are not approved for the treatment of patients with dementia-related psychosis - used "off-label"

Guiding Principles for Antipsychotic Use - SAMHSA

Antipsychotic medications should be avoided when possible
If indicated, dosage should be started as low as possible with modest increases only when necessary
Second generation antipsychotics are preferable over first generation antipsychotics due to more favorable side effect profiles
Medications should be discontinued if no clinical benefit is observed
Discontinuation may need to be considered for those who experience side effects even if there is improvement in behavioral symptoms
Taper should be attempted for ALL patients within 4 months of treatment with close monitoring

Antipsychotics

- Target behaviors: hallucinations, delusions, agitation, severe aggression
- Quetiapine, risperidone, aripiprazole, olanzapine, pimavanserin*, clozapine**
- Avoid typical or first-generation antipsychotics such as haloperidol – especially in patients with Lewy body dementia
    - Up to 50% of patients with LBD who are treated with any antipsychotic medication may experience severe neuroleptic sensitivity

Key Points

Key points

- **All behavior is communication**
- Screening for neuropsychiatric symptoms should be performed at every follow-up visit for patients with dementia
- Explore acute / reversible causes first
- Non-pharmacologic treatment as first-line
- Medications are symptom – specific
- Start low, go slow, titrate when able
- Caregiver support and education

Case study

Marion is an 89-year-old female with a history of Alzheimer's disease. She lives with her adult daughter (who works from home) and her family. Daughter called the clinic to report that her mother is compulsively rubbing an area of her scalp to the point that she is losing hair. This has been going on for approximately 1.5 months. She was evaluated first by her primary care physician, who prescribed a steroid cream with no improvement. She can be distracted for a few minutes at a time but will sit and rub her scalp if left alone. The daughter is concerned that her mother may be bored at home, as she works during the day and her children have returned to school.

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