Managing Behavioral Challenges in Dementia

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Disclosure

I have no financial interests or relationships to disclose.

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Learning Objectives

1. Be able to describe factors precipitating behavioral disturbances and rule out medical, environmental, and caregiving causes of behavioral problems.
2. Use non-pharmacologic management strategies to minimize/treat behavioral disturbances.
3. Review medication management options to use when necessary.

In Which of the Following Types of Dementia Do Patients Experience Behavioral Problems, Including Aggressive Behaviors?

A. AD
B. bvFTD
C. LBD
D. All of the above

Behavioral and Psychological Symptoms of Dementia

- 80%–90% of patients with dementia develop at least one distressing symptom over the course of their illness
- Often precipitate early nursing home placement
- Disturbances are potentially treatable

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Common Behavioral Disturbances

Agitation/ Aggression	Sundowning	Delusions	Hallucinations
Paranoia	Wandering	Hoarding	Depression/ Anxiety
Apathy	Disinhibition/ Hypersexual behaviors	Sleep disturbances	Resistance to care

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Screening for Behaviors

- Should be done at each regular follow-up visits with CG/Family
  - Does the patient have any behaviors that worry you?

UpToDate. Management of Neuropsychiatric symptoms of dementia. Accessed 4/30/22

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Assessment Scales to Quantify BPSD

- More than 83 different scales exist

BPSD Scale	Care Location	Time to Administer
CMAI: Cohen Mansfield Agitation Inventory	Any	10-15 minutes
NPI: Neuropsychiatric Inventory	Office	7-10 minutes
Dementia Observation System	Care Facility	5 min/day

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Assessment of Behavioral Symptoms

- Get comprehensive assessment from patient and caregiver/family
- Get a clear description of the behavior
  - Temporal onset, course, associated circumstances, and its relationship to key environmental factors such as caregiver status and recent stressors
- Once you have a good understanding of what the behavioral symptom the patient is experiencing is, then you want to look into potential causes in the context of the patient's family and personal, social, and medical history

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Assessment of Behavioral Symptoms

- Did the symptoms start suddenly?
- Do they notice any triggers or times of the day they tend to occur?
- Is the behavior a symptom of a medical condition, or discomfort due to a medical condition (e.g., UTI), or acute infection?
- Is the patient in pain?
- Is the patient constipated?
- How is their oral intake? Are they dehydrated?
- What medication is the patient taking? Any new meds?
- Has the patient experienced a change in environment?
- Is there stress in the patient-caregiver relationship?

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Take Home Point.

Conceptualize
challenging behaviors
as *symptoms* instead of **problems**.

Used with permission from Dr. Allison Bickett.

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Proactive Treatment Approach

- Address physical health
- Assess the physical environment
- Assess social environment
- Help the helper

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Physical Health

- Fatigue due to poor sleep
- Medical condition
- Clinical depression
- Vision loss or lack of proper eyeglasses
- Hearing loss or lack of working hearing aid (check batteries)
- Constipation
- Dehydration
- Need to urinate
- Hunger
- Pain
- Delirium

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Physical Environment

- Physical space
- Daily routine
- Sensory stimulation
- Time Changes

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Social Environment

- Moving to a new residence or nursing facility
- Changes in a familiar environment or caregiver arrangements
- Changes in family roles/responsibilities
- Changes in quality of friendships

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Help the Helper

- Educate and set expectations with caregivers
- Ensure that caregiver has adequate respite and resources
- Provide access to experienced professional and community resources
- Refer to local Alzheimer's Association
- Consult with geriatric professionals

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Help the Helper

- Does the patient know who you are? Your intentions?
- How do you communicate with the patient?
  - What are you saying?
  - What is your tone saying?
  - What is your body language saying?
- Are you acting like the boss of them?
  - "Calm down."
  - "You need to take your pills."
  - "We told you three times already to sit down."

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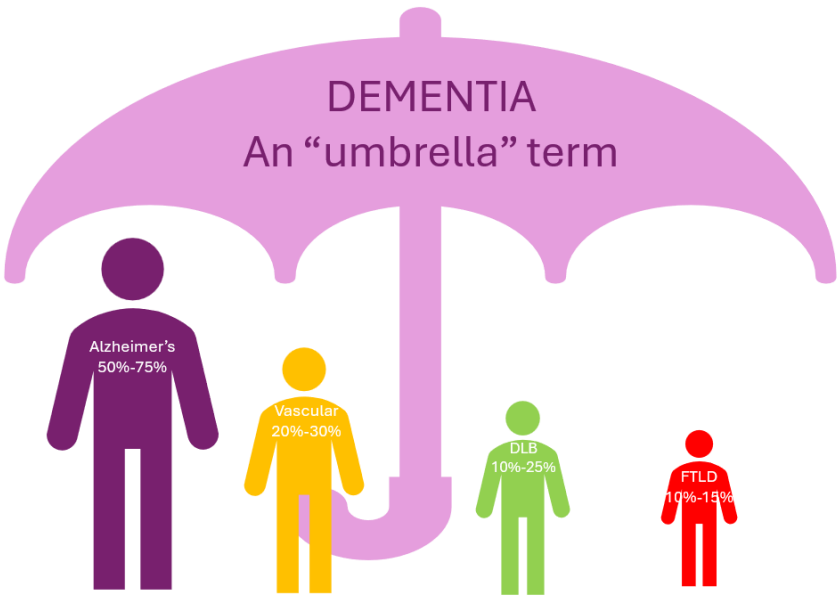

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Treatment Options: Non-Pharmacologic Approaches

- Sensory-Oriented Approaches
- Emotion-Oriented Approaches
- Behavior Management Techniques
- Practical Techniques

Non-Pharmacologic Approaches should always be used first.

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You are treating an 82 y/o female with AD who appears to have aggressive behavior only emerging in times of confusion.

Which of the Following Non-pharmacologic Interventions Has the Best Level Of Evidence Supporting Its Use?

A. Simulated Presence Therapy (SPT)
B. Music Therapy
C. Validation Therapy
D. Transcutaneous Electrical Nerve Stimulation (TENS)
E. Pet Therapy

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Sensory-Oriented Approaches

- Acupuncture
- *Aromatherapy
- *Exercise
- Light Therapy
- *Massage and Touch
- *Music Therapy
- *Pet Therapy
- *Snoezelen Multisensory Stimulation Therapy
- Transcutaneous Electrical Nerve Stimulation (TENS)
- *Transcranial Magnetic Stimulation (TMS)

*=some evidence of benefit

Opie J, Rosewarne R, O'Connor DW. The efficacy of psychosocial approaches to behavioral disorders in dementia: a systematic literature review. Aust N Z J Psychiatry. 1999 Dec;33(6):789-99. doi: 10.1046/j.1440-1614.1999.00652.x. PMID: 10619204
Yin Z, Li Y, Bao Q, Zhang X, Xia M, Zhong W, Wu K, Yao J, Chen Z, Sun M, Zhao L, Liang F. Comparative efficacy of multiple non-pharmacological interventions for behavioral and psychological symptoms of dementia: A network meta-analysis of randomized controlled trials. Int J Ment Health Nurs. 2024 Jun;33(3):487-504. doi: 10.1111/inm.13254. Epub 2023 Nov 27. PMID: 38012101..

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Emotion-Oriented Approaches

- Reminiscence Therapy
- Simulated Presence Therapy (SPT)
- Validation Therapy

*=evidence of benefit

Zetteler J. Effectiveness of simulated presence therapy for individuals with dementia: a systematic review and meta-analysis. Aging Ment Health. 2008 Nov;12(6):779-85. doi: 10.1080/13607860802380631. PMID: 19023729.

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Behavior Management Techniques

- *Behavior Management Techniques:
  - Functional analysis of specific behaviors
  - Behavior therapy and habit training
  - Cognitive Behavioral Therapy (CBT)
  - Progressive muscle relaxation
  - Communication training
  - Various types of individualized behavioral reinforcement strategies

*=evidence of benefit

Teri L, Logsdon RG, McCurry SM. Nonpharmacologic treatment of behavioral disturbance in dementia. Med Clin North Am. 2002 May;86(3):641-56, viii. doi: 10.1016/s0025-7125(02)00006-8. PMID: 12168563.

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Practical Techniques

Agitation	Redirection
Paranoia	Remove mirrors
Sundowning	Exposure to light
Wandering	Door alarms
Hypersexual	Move room/adaptive clothing
Resistance to Care	36 Hour Day

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So, What Works?

- Evidence is lacking but the literature seems to suggest that sensory-oriented approaches show greater promise than emotion-oriented approaches.
- Some evidence to suggest that behavior management techniques are effective strategies to reduce behavioral symptoms of dementia.

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Putting It All Together

- Given the lack of certainty of overall benefit from these interventions, implemented programs should strive to minimize associated harms
- Less risky than medications
- Not all forms of non-pharmacologic treatments for dementia may be appropriate for all patients

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When Medications Are Needed

- Primary goal of treatment
  - Enhance quality of life
  - Maximize functional performance by improving or stabilizing cognition, mood, and behavior

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Medications

- Use CAUTION with pharmacologic treatment
- **Evidence demonstrates** that **pharmacological** interventions are ineffective in managing behavioral problems in patients with dementia
- Potential side effects are frequent and often hazardous

Start low and go slow!

Teri L, Logsdon RG, McCurry SM. Nonpharmacologic treatment of behavioral disturbance in dementia. Med Clin North Am. 2002 May;86(3):641-56, viii. doi: 10.1016/s0025-7125(02)00006-8. PMID: 12168563
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Your 67 y/o patient with DLB is having social withdrawal, anxiety, and increasing irritability for the past 2 months. They have a score of 10 on the GDS.

What Is the First Line Medication for These Symptoms?

A. Paroxetine
B. Bupropion
C. Sertraline
D. Amitriptyline

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Agitation/BPSD

- Limited evidence for antidepressants

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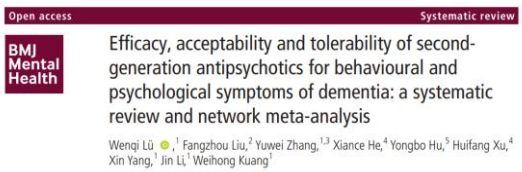
Agitation/BPSD

- Brexpiprazole (Rexulti) demonstrated superior efficacy compared to placebo
- Aripiprazole (Abilify) has best acceptability profile



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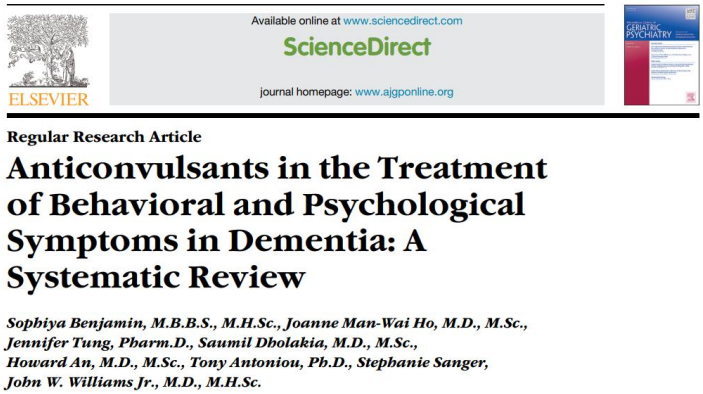
Agitation/BPSD

- Current evidence indicates anticonvulsants are unlikely to be effective



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Regular Research Article

Anticonvulsants in the Treatment of Behavioral and Psychological Symptoms in Dementia: A Systematic Review

Sophiya Benjamin, M.B.B.S., M.H.Sc., Joanne Man-Wai Ho, M.D., M.Sc., Jennifer Tung, Pharm.D., Saumil Dholakia, M.D., M.Sc., Howard An, M.D., M.Sc., Tony Antoniou, Ph.D., Stephanie Sanger, John W. Williams Jr., M.D., M.H.Sc.

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Mood Disturbances

- Screen for depression
  - If lasts >2 weeks, consider trial of antidepressant + behavioral interventions
  - If lasts >2 months after behavioral interventions, treatment with antidepressant is needed

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Depression

- SSRI first line
  - Sertraline or Citalopram (risk of QT prolongation, max 20 mg/d)
- SNRI, bupropion can be considered (caution if anxiety)
- Mirtazapine for sleep/weight gain

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Depression

- Augment with methylphenidate
  - But risk of increasing psychotic symptoms
  - Great in end-of-life depression, apathy
  - Avoid with bupropion
- ECT
  - most efficacious and rapidly effective treatment for severe major depression and has a favorable safety profile even in mild dementia (SOE=B).

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Manic-Like Behavioral Syndromes

- Pressured speech, disinhibition, elevated or irritable mood, intrusiveness, hyperactivity, impulsivity, or reduced sleep
- Treat with mood-stabilizing agents, such as Depakote, carbamazepine, lamotrigine, gabapentin, lithium, pregabalin
- Divalproex sodium
  - 125 mg q 12 hour, titrate upward
  - Blood levels 50-100 shown to be effective
  - Monitor LFTS and CBC, at start and q6 months

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Manic-Like Behavioral Syndromes

- Carbamazepine
  - Starting at 100 mg q12h
  - Monitor LFTs and CBC –q dose increase and q 3 month
- Lamotrigine
  - Approved by the FDA for treatment of mania
  - No trials have been conducted in older adults.
- Lithium
  - Good mood stabilizer, but enhanced sensitivity to adverse events in older adults
- Gabapentin and Pregabalin
  - have been used for states that include hyperactivity, restlessness, and impulsivity, but concerns remain regarding dosing, risk of falls, and excess sedation

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Delusions and Hallucinations

- Delusions=fixed false beliefs
- Hallucinations=false perceptions, sensory experiences without stimuli

- If the patient is disturbed by them can do trial of antipsychotic, 2nd line preferred over haloperidol
  - Quetiapine is most sedating
  - Clozapine is helpful in patients with psychosis associated with PD or Lewy body
  - Rexulti (brexpiprazole)-newly approved 2nd gen for dementia-associated agitation in AD

- All have block box warning-increased risk of mortality with dementia

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Antipsychotic Medications

Medication	Dosage (mg/d)	Adverse events*	Formulations	Comments
Aripiprazole[OL]	2–20	Mild sedation, mild hypotension	Tablet, rapidly dissolving tablet, IM injection, liquid concentrate	Give in AM
Asenapine[OL]	5–10 (tablet) 3.8–7.6 (patch)	Sedation	Sublingual tablet, transdermal skin patch	Rare reports of anaphylactic reaction
Brexpiprazole[OL]	0.25–4	Respiratory tract infection, akathisia, weight gain	Tablet	Pharmacologic action similar to that of aripiprazole (partial D_2 dopamine agonist)
Clozapine[OL]	12.5–200	Sedation, hypotension, anticholinergic effects, agranulocytosis	Tablet, rapidly dissolving tablet, suspension	Weekly CBCs required; poorly tolerated by older adults; reserved for treatment of refractory cases
Haloperidol[OL]	0.5–3	Extrapyramidal symptoms, sedation	Tablet, liquid, IM injection, long-acting injection	First-generation agent
Iloperidone[OL]	1–12	Sedation, orthostatic hypotension	Tablet	Dosage reduction with use of CYP3A4 and CYP2D6 inhibitors
Lurasidone[OL]	40–80	Sedation	Tablet	Do not exceed 40 mg/d with

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Antipsychotic Medications

Olanzapine[OL]	2.5–15	Sedation, falls, gait disturbance	Tablet, rapidly dissolving tablet, IM injection	Weight gain, hyperglycemia
Paliperidone[OL]	1.5–12	Sedation, fatigue, GI upset, extrapyramidal symptoms	Sustained-release tablet, depot IM long-acting injection	Dosage reduction in renal impairment
Perphenazine[OL]	2–12	Extrapyramidal symptoms, sedation	Tablet	First-generation agent
Pimavanserin[OL]	17–34	Peripheral edema, nausea, constipation, confusion	Tablet	No dosage adjustment required in mild-moderate renal impairment; not advised in hepatic impairment; only approved for hallucination and delusion associated with Parkinson disease psychosis.
Quetiapine[OL]	25–200	Sedation, hypotension	Tablet, sustained-released tablet	Ophthalmologic examination recommended every 6 months
Risperidone[OL]	0.5–2	Sedation, hypotension, extrapyramidal symptoms with dosages >1 mg/d	Tablet, rapidly dissolving tablet, depot IM long-acting injection, liquid concentrate	
Ziprasidone[OL]	40–160	Higher risk of QT_c prolongation	Capsule, IM injection	Little published information on use in older adults

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BEST PRACTICES IN PSYCHIATRY: RECOMMENDATIONS FROM THE CHOOSING WISELY CAMPAIGN

RECOMMENDATION	*SPONSORING ORGANIZATION*
Do not prescribe antipsychotic medications for behavioral and psychological symptoms of dementia in individuals with dementia without an assessment for an underlying cause of the behavior.	American Medical Directors Association
Do not use antipsychotics as first choice to treat behavioral and psychological symptoms of dementia.	American Geriatrics Society American Psychiatric Association

Source: For more information on the Choosing Wisely Campaign, see http://www.choosingwisely.org. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see http://www.aafp.org/afp/recommendations/search.htm.

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How About Cholinergic Agents?

- Donepezil or galantamine may reduce the onset of psychosis and behavioral disturbances of Alzheimer disease
- Compared to placebo they may reduce the rate of emergence of behavioral disturbances and psychosis (SOE=B).
- In Dementia with Lewy bodies reduced visual hallucinations have been reported (SOE=C).
- Galantamine in dosages of 16–24 mg/d may be useful in the treatment of patients with Lewy body dementia, who are uniquely sensitive to the extrapyramidal adverse events of antipsychotic agents

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Sleep Disturbances

- Melatonin
- Trazodone or mirtazapine
- Ramelteon (melatonin agonist) may be helpful but no studies have shown efficacy in dementia

- Gabapentin has sedative properties but a/e of ataxia and confusions
- Avoid Benzodiazepines and antihistamines
  - carry a high risk of falls, hip fractures, disinhibition, and cognitive disturbance when prescribed for patients with dementia.
- Zolpidem (Ambien) and zaleplon (Sonata) may be helpful, but no controlled trials for sleep disturbances secondary to dementia
  - Recommended dose is <5 mg of zolpidem, short acting for short duration/intermittent administration (<3x/week)

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Your 89 y/o male SNF patient with bvFTD has been exhibiting sexually inappropriate behavior. Behavioral interventions in the form of redirection, distraction, and avoiding stimulants has failed.

What Is Your Next Step?

A. Trial sertraline
B. Oral medroxyprogesterone 5 mg/d at first
C. Clarify behaviors further
D. Physically separate patients

Inappropriate Sexual Behavior

- Antidepressants (SSRI, trazodone, TCA-clomipramine)
  - have been used with variable success
- Dangerously hypersexual/aggressive
  - 2nd generation antipsychotic
  - Depakote
  - Antiandrogen can be attempted
    - Oral medroxyprogesterone5 mg/d at first
    - Adjust to suppress serum testosterone to well below normal
    - If patient responds, 10 mg of depot IM progesterone can be used weekly

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Take Home Points

- Conceptualize challenging behaviors as symptoms instead of problems.
- Rule out medical, environmental, and caregiving causes of behavioral problems .
- Use pharmacological treatments only as a last resort.

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