Practical Management of Dementia with Behavior Disturbance

Maureen Nash, MD, MS, FAPA
Medical Director, Providence Elderplace
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Disclosures

Maureen Nash, MD, MS, FAPA
Nothing to Disclose regarding Financial Conflicts of Interest
Off-label use of medications will be discussed

*Off-label does NOT mean illegal, ill-advised, or non-evidence based

EMAIL: mcnashtrinity@gmail.com

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Why this topic?

- Dementia is common and prevalence is increasing

- Behavior Disturbance is nearly ubiquitous at some point in the lives of those with dementia

- Behavior Disturbance causes great suffering, decreased quality of life for both patients and their families, and increased need for institutional care

- Behavior disturbance is TREATABLE!

But, I thought dementia was a cognitive disorder?
First Case of Alzheimers
Auguste D.

- She died in 1906 at age 56, 5 years after admission
- Hx of progressive functional decline, cognitive impairments, and...
- Reason for admission: Hallucinations, delusions and psychosocial incompetence

Maurer K et al: Lancet 349: 1546-9, 1997

What is Behavior Disturbance in Dementia?
Inappropriate Sexual Behaviors

- Retrospective case-control study of 165 older adults in residential care facilities in 2005
- Alzheimer’s Dementia
  - Intimacy-seeking behaviors
  - Disinhibited
  - Non-sexual intimacy seeking
- Non Alzheimer’s Dementia
  - Disinhibited


What outcome do we desire?
Symptom management
Meeting needs supporting function

Intentions behind assessment direct therapeutic interventions
Therapeutic Approach to Dementia Care

- Identify/Assess Causes of Behavior
  - Identify unmet physical & psychological needs
  - Identify environmental causes
  - Recognize psychiatric symptoms
  - Key stage for assessments of Cognitive and Functional Abilities
  - Utilize behavioral rating scales

- Select Interventions based on assessments

- Apply Interventions
  - Caregiving Approaches
  - Adapt Environment
  - Evidence-based interventions (sensory, activity, communication)
  - Staff Training

- Monitor Outcomes
  - Behavior rating scales
  - Staff training
  - Individualize interventions
  - Document preferences and positive outcomes
  - Quality of life scales
  - Caregiver report

- Re-evaluate Needs

Psychiatric Symptoms amenable to treatment with medications in addition to Nonpharm interventions

- Paranoia and delusions
- Hallucinations
- Depression
- Sometimes anxiety
- Pain
- ?agitation?
Symptoms to address with Nonpharm interventions and not usually responsive to medications

- Wandering/Exit seeking
- Calling out (not related to pain)
- Repetitive questions
- Anxiety related to having memory loss
- Psychomotor agitation
- Sleep problems?
- ?agitation?

Summary for Treatment of Behavior Disturbance in Moderate to Severe Dementia with Behavior Disturbance

- Assess for type of dementia
  - DAT/VD vs LBD/PDD vs FTLD vs Other
- Assess for functional status – is it CHANGING now?
  - Mild, moderate, severe
- Always use behavioral strategies –
  - teach caregivers (support groups, books, online) and adapt the environment (OT/PT/Home Health)
- Minimize or eliminate anticholinergic meds, benzodiazepines, trazodone, ?antidepressants
- Memantine and Cholinesterase Inhibitors as first line agents** for DAT/VD/LBD/PDD
  - minimal risk, moderate efficacy
Summary continued

• Monitor for delirium, even “sub” deliriums such as constipation, dehydration and pain, treat delirium aggressively
  – Treat pain!
  – Eating! Drinking fluids!
  – Urinating, defecating!
• Discontinue or lower harmful medications
  • look for meds that cause confusion (Anticholinergics, BZD)
  • evaluate for Drug-Drug Interactions
  • dose appropriately for renal function
  • Based on life expectancy, do they need statin etc?
  • Do not **over treat** blood sugars or blood pressure

Summary continued

• If depressed, trial supportive measures then consider antidepressants
• If manic-like, consider trial of mood stabilizer
• If paranoid, delusional or fearful, trial antipsychotic mediations, start low dose and increase slowly monitoring for side effects
• If aggressive
  • consider antipsychotic medication
  • consider trial of scheduled pain medication
  • avoid dehydration and constipation
  • carbamazepine or valproic acid as 5th or 6th line intervention
Summary continued

- If restless, consider akathisia (antidepressants, antipsychotics) or pain or constipation or urinary retention. Find a safe place for the person to walk.
- If calling out and moaning, consider pain
- If repetitive questions, use behavioral interventions
- If wandering, secure the environment
- If up at night, feed the person, find a spot and provide an activity that they enjoy. Encourage early morning bright light and increased exercise early in day.

Average Caregiver Burden from NPI of 390 patients during inpatient Geripysch treatment: unpublished data
Avg symptom severity from NPI of 390 pts during inpatient Geripysch treatment: unpublished data

Canadian Review of Evidence led to changes in recommendations

- 15 revised or new recommendations approved by consensus.
- ChEIs possess a class effect and any of the agents can be used for AD across the spectrum of severity and with co-existing cerebrovascular disease.
- Insufficient evidence to recommend for or against the use of ChEIs in combination with memantine for the primary indication of treating neuropsychiatric symptoms, or for the treatment of vascular dementia.
- ChEIs were recommended as a treatment option for dementia with Parkinson's disease.

Canadian Review of Evidence led to changes in recommendations

• Risks associated with use of antipsychotics for neuropsychiatric symptoms were strengthened.
• Guidelines regarding the use of antidepressants for affective disturbances in dementia were weakened, and are now considered an option but not a firm recommendation.
• Valproate was NOT recommended and there was insufficient evidence to recommend for or against the use of SSRI s or trazodone for the treatment of agitation and aggression.


Shelly

• 64 year old female, early onset Alzheimers, very advanced, no meaningful communication via speech
• paced the halls screaming, aggressive to staff and occasionally peers
• Talked to self and would state “he beat me up”
• Emotionally labile-often tearful, poor attention span, frowning expression
What didn’t help Shelly

- Standard treatments didn’t help for 60+ days
  - on/off antidepressant, on/off memantine/donepezil,
    off/on low dose atypical antipsychotic, off/on
    carbamazepine….
- She paced, yelled, screamed, cried more than 19 hours per day
- Staff tried everything!!!
  - Distraction, baby doll, stuffed animal, walking with,
    feeding, holding hands, talking, singing, music, giving
    tasks, taking to groups, taking to quiet room….

The AHA moment when treating Shelly

- Realization of pain
  - Housekeeper for decades, arthritis, edema of her
    feet with cracked bleeding skin (walking > 19
    hours per day)
- Treated pain aggressively
  - Scheduled acetaminophen then oxycodone then
    fentanyl patch (and senna, docusate, lotion to her
    feet)
- Outcome – within 10 days, calm, occasional
  smiling, able to sit down
Adequate Pain Control

Pain amplifies neuropsychiatric symptoms in moderate-severe dementia.

Efficacy of all other interventions will be decreased if you don’t recognize and treat pain

Challenges in recognizing and treating pain

• We look for pain in a particular way
• We are told to conservatively treat pain in older adults
• We believe we recognize someone in pain, but we are all susceptible to being desensitized to uncommon presentations in front of us
**Robert**

- 74 year old living independent senior living apartment for three years.

- Independent in basic ADLS and still driving.

- Tells peers about his “friend Johnny”. Johnny is invisible. One night he calls 911 telling them that his friend Johnny has fallen and cannot get up off the floor.

- Robert is taken to the ER. MMSE 29/30. Cooperative.
More about Robert

- Prescribed risperidone 2mg twice daily

- 3 days later he presents with a marked decrease in mobility and is “stiff all over”

- He has been up all night knocking on doors and yelling “fire!”

- Became aggressive with manager

Cognistat
What we found out later…..

- Robert demonstrated fluctuations in behavior from sitting and talking with staff, and participating in groups to biting and punching with cares

- During periods of “psychosis” pt unable to correctly orient to environment, cooperate with additional evaluations. At other times oriented x 4.

- Fluctuations in mobility and ADL abilities.

- Diagnosis…………………..
Lewy Body Dementia
(overlaps with Parkinson’s Disease Dementia)

- Visual Hallucinations or Paranoia/Delusions often presenting symptom
- Memory problems begin with retrieval difficulty
- Waxes and wanes within 24 hour period
- Usual treatment for psychosis often worsens symptoms
- Insight, when not floridly psychotic, often present in people with early and moderate disease

Treatment Planning

- Varies greatly person to person
- Plan for “the safest” when looking at level of care
- Monitor side affects of medications
- Caregiver Education
- Home safety evaluation
- Do not over react to hallucinations
- Provide a variety of activities to accommodate for cognitive fluctuations, grade appropriately
- Structure, support, and predictable environment
Psychosis +/- Behavior Disturbance in LBD and PDD

- Cholinesterase Inhibitors
- Quetiapine effective, lower dose better
- Side effects include somnolence, dizziness, postural hypotension and worsening Parkinsonian motor symptoms
- Clozapine is also used in these illnesses for the same symptoms with fewer motor side effects, but intrusive lab testing required

“Algorithm” for medications to treat PDD/LBD and significant behaviors

- 1st line: Cholinesterase Inhibitor (donepezil or rivastigmine patch)
- Consider Memantine dosed by renal function
- Depression: norepinephrine (not usually serotonin)
  - Bupropion SR 100mg qday, Nor triptylene 25-75 qhs
- Restless Leg Syndrome:
  - Dopaminergic agents, consider clonazepam, eliminate all serotonergic meds
- REM sleep disorder: melatonin, clonazepam
- Agitation/Aggression: low dose quetiapine/clozapine
- 3rd line: VPA for anxiety or impulse control
- 3rd line: for depressive symptoms
- Simultaneously: opiates for pain, treating constipation and urinary retention, etc
Other Considerations

• What is a safe living situation for Robert?
• Family education is very important
• Daughter brings patient to my office every 6 months for follow-up. Large part of each visit is educating the daughter on how to interact with her father
• For several years after discharge, patient has intermittent mental clarity and knows what is real and what isn't

Mr ADD

• 58yo Male with 3 month history
  • Increasing agitation, irritability
  • Poor financial decisions
  • Increase in swearing
  • Variable sleep
  • Diagnosed by Neurologist with Bipolar
  • EEG, CT scan normal
  • Prescribed VPA but refused it
  • Used to be fastidious, now poor hygiene

  • Threatening to kill himself, taken to ED
SPECT scan of ADD showing FTLD
Man goes to sheriff to report a crime tazered by Deputy

- 65 yo Dick sees cans and bottles in his yard, becomes delusional about local children harassing him

- He goes to local Sheriff’s office to complain about the neighbor’s children

- Deputy tells him to remove a pocket knife from his belt before entering the office to file a complaint

- Dick does not respond to the request and the Deputy controls the situation by using a tazer to subdue Dick
Mental Status Exam

- Perseveration, inability to modify a course of action once it is set in motion
- Unable to perform previously familiar actions such as undoing a clasp hook
- Lack of appreciation that anything was wrong
- Paranoia and Hallucinations

ADM Testing
EXIT 25

• Score: 23 (above 15 indicates executive dysfunction but not why a person has executive dysfunction)

• Patient demonstrated marked echopraxia (imitating the actions of others), inappropriate social habits, and a grasp reflex was present

Activities of Daily Living

• Consistent with Allen Cognitive Level screen of 3.6 – severe functional impairment

• Perservative

• Washing face 6 times in a row

• Refusing tooth paste

• Fills pants with toilet paper

• Not directable with verbal cues to alter focused behavior
Treatment Planning

- Recognize and correctly “label” behaviors
- Adapt environment to promote ADL completion
- Assist in providing information to clarify diagnosis
- Recognize memory and orientation may be more intact than social/ language skills
- Identify appropriate communication techniques (reality orientation vs. validation/ distraction)
- Educate family and caregivers
  - Support groups, books like Help is Here…
  - Set realistic goals

Treatment for FTLD

- Discontinuing all medications that are possible
- For dangerous/troubling paranoia and delusions- scheduled atypical antipsychotic like risperidone or ziprasidone
  - 2nd line antipsychotic perphenazine
- Some evidence for serotonergic medications
- If pt develops disinhibited behavior consider scheduled VPA or carbamazepine –
  - titrate dose for low or no side effects and efficacy, not a blood level
Annie at the Skilled Nursing (SNF)

82 year old woman post CVA with decreased ability to complete self care. She was confused in the hospital, and was unable to return home.

  unwilling to participate in therapy
  decreased self care
  word finding difficulties.

Pt. reports that she wants to die and varies in level of orientation throughout the day. Talks to unseen others. MMSE 5/30. SLUMS 7/30. ACL screening score 3.6.

Changes:

• Benadryl for sleep was stopped
• Lorazepam and depakote for anxiety tapered off
• Focus on treating hydration with IVF, feeding her foods she likes by hand (not putting the tray in front of her)
• Melatonin for sleep
• Patient ADLs improved to independence in basic ADLs with direct cues to initiate. No apraxia, motor planning, weakness, or disorientation impairments
• MMSE repeated 28/30, SLUMS 24/30
• Patient attends groups when occupation based – engages in past leisure interests (art, cooking, gardening)
• Responds positively to interaction. States she is lonely at home.

Allen Diagnostic Module

Annie's project • Patient with dementia’s
Bottom Line

- Know what you are using - what a score means
- Low score does not always mean dementia
- Older adults are very vulnerable to misdiagnosis in acute care
- Always repeat tests when stable
- Always read score interpretation
- Always balance functional observations with standardized assessments
Parade Day Downtown

- 74 year old Beatrice drives to same store using same streets for decades. Her family and neighbors believe her to be independent
- Streets barricaded with detour signs
- Returning home from the store, Beatrice crashes through the barricade on the parade route
- She becomes extremely anxious and pleads with the police officer that she needs to get home to her young children

Mental Status Exam

- Conversational Speech Normal
- Inability to form new memories
  - Denies accident occurred
- Executive Functioning Deficits
  - Unable to follow detour sign
- Word finding problems
  - Vague speech, word substitution errors
- No idea that anything was wrong with her mind
Allen Diagnostic Module

- Example: Box ADM
- Patient project at 3.6
What we saw in the hospital.....

- Beatrice was cooperative with all groups and milieu activities
- Completed ADLs with structure and supplies. Often forgets to brush teeth but completes with cues and set up.
- Responded positively to structure and support.
- Diagnosis..........................
Treatment Planning

- Alzheimer’s Dementia responds positively to structure and simple routine
- ADL independence may be encouraged and maintained by simplifying tasks, providing setup, and problem solving routine
- Validation- communicate with emotions
- Distraction- decreases false ideas
- Provide LTM based activities
- Positive response to social norms, “familiar life patterns”
- Educate family and caregivers

“Algorithm” for medications for those with Alz or Vasc Dem and significant behaviors

- 1st line: Cholinesterase Inhibitor (donepezil or rivastigmine patch) + Memantine dosed by renal function
- Significant Agitation/Aggression: 2nd line: Atypical antipsychotic
  - Risperidone 1-2mg per 24 hours, dosed bid
  - Ziprasidone 20-100mg po bid with meals, increase dose slowly
  - Consider aripiprazole, olanzepine (at < 10mg/24 hours)
- 3rd line: VPA for anxiety or impulse control
- 3rd line: SSRI for depressive symptoms
  - Citalopram 10-20mg qday
  - Avoid fluoxetine due to half life and drug-drug interactions
- Simultaneously: opiates for pain, recognizing and treating constipation and urinary retention, etc
“Algorithm” for treating those with Inappropriate Sexual Behaviors

• Attempt to classify behavior appropriately
  • Is it even sexual?

• Trial non-pharmacological interventions
  • Ex. One-piece outfit

• Lowering or discontinuing dopaminergic agents
  (carbidopa/levodopa, ropinarole etc)

• Tapering off of benzodiazepines

Treating inappropriate sexual behavior

• If manic-type behavior: discontinue all antidepressants

• If behavior is impulsive or disinhibited: mood stabilizer

• If behavior is related to libido and guardian or health care power of attorney give informed consent,
  • consider anti-androgen treatment (ex. medroxyprogesterone)

• Discharge patient to a single gender facility or unit
The MEMAGE Study

- Retrospective in seven Italian Ambulatory Centers for Dementia assessed memantine 20 mg/day for 6 months + ChEI in AD patients with worsened cognitive functions and behavioral disorders
- 240 patients, mean age 77.9
- Combined treatment effective in patients with AD, particularly in slowing cognitive impairment and preventing the onset of agitation and aggression in elderly AD patients


Cost Effectiveness of Dementia Meds

Users of ChEI had the highest medication and outpatient costs but the lowest inpatient costs

Lucy

- Retired RN, first seen at age 78, moderate to severe Alzheimer's, on SSRI escitalopram 10mg at initial evaluation
- “Is it time to shoot me?” repetitive, sad question + tearfulness
- I discussed dc of SSRI but daughter wanted to continue it, so we did
- Hospitalized with pneumonia and delirium at age 81, escitalopram stopped and not restarted at discharge
- Seen in follow-up 2 months later, perseverative question + tearfulness increased from ~5 times daily to >50 times daily
- Escitalopram restarted and again sadness decreased greatly

Treatment of Depression in Dementia

- Obvious choice is antidepressants?
  - Consider distraction, increased structured activities, Problem Solving Therapy and other non-pharm interventions
- If using medications:
- For DAT/VD: initial treatment
  - Citalopram at 10mg daily
  - Escitalopram 5 mg daily
- For LBD/PDD: initial treatment
  - Bupropion SR/ER 100-150mg qday
  - NTP 25-50mg qhs
Clinical Pearls about depression

- Depression is often prodromal to emergence of Alzheimer’s Dementia
- Depression is so common in Vascular Dementia that it has its own ICD9 code
- To differentiate them:
  - listen to the words, the cadence and the repetition of language during the interview

More Clinical Pearls

- Depression and Anxiety are symptoms though they can appear in depressive and anxiety disorders or syndromes
- In patients with dementia, depression and anxiety symptoms are very common but depressive and anxiety disorders/syndromes are much less common
DSM 5 Alzheimer’s Disease (AD)
• Evidence of AD associated genetic mutation
• All 3 of following
  – Clear evidence of decline in memory and learning
  – Steady progressive decline
  – No evidence of mixed etiology

DSM 5 Frontotemporal Neurocognitive Disorder (FTLD)
• Insidious onset and gradual progression
• Either (1) or (2)
  1. Behavioral variant
    – 3 or more of the following: behavioral disinhibition, apathy, loss of empathy, perseverative/stereotypical behavior, hyperorality and dietary changes
    – AND prominent decline in social cognition and/or executive functioning
  2. Language Variant:
    – Prominent decline in language ability
• Relative sparing of learning and memory and perceptual motor functioning
DSM 5 Neurocognitive Disorder with Lewy Bodies (LBD)

- Insidious onset and gradual progression
- 2 core features or 1+ core and 1+ suggestive
- 1. Core features
  - Fluctuating cognition with pronounced variations in attention and alertness; recurrent well formed, detailed visual hallucinations; spontaneous features of parkinsonism after onset of cognitive decline
- 2. Suggestive features
  - REM sleep behavior disorder, severe neuroleptic sensitivity

DSM 5 Vascular Neurocognitive Disorder

- Clinical features consistent with a vascular etiology as suggested by either
  - Onset temporally related to CVA
  - Evidence for decline in complex attention (including processing speed) and frontal-executive functioning
- Evidence of CV disease from history, physical and/or neuroimaging considered sufficient to account for the neurocognitive deficits