Managing Behavioural Problems in Patients with Dementia in LTC and at Home

Samuel D. Searle MD, FRCPC
Assistant Professor
Division of Geriatric Medicine
Dalhousie University
Disclosures

• I have received various speaking honourarium
  • Celgene
  • NS Department of Transportation and Infrastructure Renewal
Outline

• Behavioural and Psychological Symptoms of Dementia (BPSD) in Context
• Potential Causes of BPSD
• Approach to Management
• Nonpharmacological Management of BPSD
• Pharmacological Management of BPSD
• Testing our knowledge: Cases
Key Points

• It is important to have an approach to BPSD

• Evidence is poor in managing BPSD but includes nonpharmacological and pharmacological treatment

• Risperidone, if needed, should be a short term solution to BPSD
Behavioural and Psychologic Symptoms of Dementia (BPSD)

- Internat’l Psychogeriatric Assoc consensus statement 1996

- Behavioural (observation)
  - Physical aggression, screaming or vocal disturbing behaviour (VDB), restlessness, agitation, wandering / pacing, socially inappropriate behaviour, sexual disinhibition, hiding / hoarding behaviour, eating inedible objects, repetitive tugging, cursing, shadowing, resistiveness

- Psychologic (interviews)
  - Anxiety, depressed mood, hallucinations, delusions, apathy
Dementia and BPSD

• Dementia
  • Cognitive and functional decline
  • Commonly associated with troublesome behaviors and psychiatric manifestations (up to 90% of patients)
    • Typically FAST stage 5 or 6 (moderate to severe)
    • In some cases, changes in behavior may be an early part of the presentation
How common are BPSD?

• Nearly all people with dementia will have BPSD during course of disease
  • Can be common *early* in dementia

• Prevalence high in NH
  • 51-94% neuropsychiatric symptoms
    • Lyketos et al, Am J Psychiat 1999, 156:66-71

• Agitation (75%), wandering (60%), depression (50%), psychosis (30%), screaming and violence (20%)
  • Brodaty et al, Int J Geriatr Psych 16:504-12, 2001
Costs - BPSD

• Major source of distress for caregivers, family and staff

• Strong predictor of institutionalization

• Front-line staff working in LTC report that physical assault contributes to significant work related stress

• 30% of total annual cost of AD
BPSD symptom clusters

**Aggression**
- Aggressive resistance
- Physical aggression
- Verbal aggression

**Apathy**
- Withdrawn
- Lack of interest
- Amotivation

**Depression**
- Sad
- Tearful
- Hopeless
- Hopelessness
- Low self-esteem
- Anxiety
- Guilt

**Psychosis**
- Hallucinations
- Delusions
- Misidentifications

**Agitation**
- Walking aimlessly
- Pacing
- Trailing
- Restlessness
- Repetitive actions
- Dressing/undressing
- Sleep disturbance

Source: Adapted from McShane R. Int Psychogeriatr 2000; 12(Suppl 1): 147–54
BPSD – Common Concerning Features

• Agitation
  • Excessive motor activity and apparent inner tension
  • Irritability, motor restlessness, anxiety, pacing, wandering
  • abnormal vocalization, shouting
  • Often nighttime disturbance
BPSD - Common Concerning Features

• Aggression
  • Overt act meant to cause harm to another person
  • Not accidental

• Disturbed perception (hallucinations), thought content (delusions), or mood

• Circadian rhythm/sleep-wake disturbance
  • sundowning
BPSD symptoms

• Who’s problem is it??
  • Walking aimlessly, pacing
  • Repetitive actions
  • Amotivation

• Sometimes education and patience go a long way
What causes BPSD?

• “Natural course” of dementia syndrome
• Acute illness (i.e. delirium)
• Medications or medication withdrawal
• Unmet need(s) - pain, wetness, hunger, loneliness, cold, heat
• Change in environment and / or caregiver
• Over / understimulation
Delirium != BPSD

• Meds, Meds, Meds

• Infection

• Cardiac

• Metabolic – eating/drinking/elimination/pain

• Combination

• Something else
Delirium Good Practice (~ In hospital evidence)

- Sleep optimization
- Hydration/Nutrition
- Mobility
- Orientation
- Optimize hearing
- Optimize vision

- 9.9% of individuals vs 15% in controls developed delirium
- NNT = 20

Inouye SK et al NEJM 1999
P. I. E. C. E. S. – Approach in Long Term Care

• **Physical**: think of delirium
• **Intellectual**: cognitive testing/status
• **Emotional**: document depression, anxiety, psychosis
• **Capabilities**: person-centered
• **Environment**
• **Social/cultural**

www.piecescanada.com
• Nova Scotia purchased the PIECES program from Ontario in 2004 for BPSD management in LTC.

• The PIECES Learning Initiative is a comprehensive training strategy for LTC facility staff.

• Challenging behaviours resource consultants
  • One in each health zone (except 2 in Central/2 in Eastern)
  • 1 (800) 225-7225
Important Slide: Management strategy

1. Define target behaviour(s) / symptoms and severity (document)
2. Assess for trigger(s) of behaviour
3. Rule out underlying treatable factor(s)
   • Delirium, unmet needs, sensory impairment, urinary retention, constipation
4. Use non-drug treatment whenever possible
5. Drugs (poor evidence)
6. Monitor for effect / adverse effects of treatment
   • Interventions for one behaviour may not be effective for others
D.I.C.E. – Approach to Management

• Describe
• Investigate
• Create
• Evaluate

Kales HC et al BMJ 2015
BPSD assessment scales

• Numerous instruments
  • Little agreement about routine use

• 3 valid reliable scales
  1. Behavioural Pathology in Alzheimer’s Disease Rating Scale (BEHAVE-AD)
  2. Cohen-Mansfield Agitation Inventory (CMAI)
  3. Neuropsychiatric Inventory (NPI)

• Others
  • Dementia Observation System (DOS)
### D.O.S. (Dementia Observation System)

#### Use corresponding numbers to record behaviours in 1/2 hour intervals:

1. Sleeping in Bed
2. Sleeping in Chair
3. Awake/Calm
4. Noisy
5. Restless/Pacing
6. Exit Seeking
7. Aggressive – verbal
8. Aggressive – Physical
9. Other:
10. Other:

#### Dates:

| Time | 0730 | 0800 | 0830 | 0900 | 0930 | 1000 | 1030 | 1100 | 1130 | 1200 | 1230 | 1300 | 1330 | 1400 | 1430 | 1500 | 1530 | 1600 | 1630 | 1700 | 1730 | 1800 | 1830 | 1900 | 1930 | 2000 | 2030 | 2100 | 2130 | 2200 | 2230 | 2300 | 2330 | 2400 | 0030 | 0100 | 0130 | 0200 | 0230 | 0300 | 0330 | 0400 | 0430 | 0500 | 0530 | 0600 | 0630 | 0700 | 0730 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
Non Pharmacologic Interventions

• Directed to
  • Patient
    • Unmet needs
    • Acute medical
    • Sensory deficits
  • Care partner(s)
    • Stress/burden/depression
    • Education
    • Communication
  • Environment
    • Overstimulation/understimulation
    • Unsafe environment
    • Lack of activity/structure
Guideline Resources

• CCSMH – Canadian Coalition for Senior’s Mental Health

• IPA – International Psychogeriatric Association

• CADTH - Canadian Agency for Drugs and Technologies in Health

• CCCDTD4 – 4th Canadian Consensus Conference on Diagnosis and Treatment of Dementia

• Choosing Wisely Guidelines
Nonpharmacological interventions

• **Family support and education**  CCSMH Level B
  • Support groups
    • Don’t take it personally; it is part of the disease
    • Distraction often works
  • Respite care, adult day programs
  • Home care
Nonpharmacological interventions

- **Care giver training on communication**  
  - Appears to reduce Agitation

- **Dementia care mapping**  
  - ABC assessment (antecedent → Behaviour → Consequence) by trained observers (alternatively: DICE)
  
  - Systematically identifying and responding to presumed causes of agitation/aggression.

  - Observations used to inform care plans, feedback provided to care staff.

  [Abraha I et al BMJ Open 2017]  

[CCSMH Level B]
Nonpharmacological interventions

• **Personalized music therapy**
  • Can be helpful in apathy, low mood, and anxiety
  • Short term reduction in agitation
  • Not much evidence for severe agitation, but may be helpful as part of a “personalized pleasant activities approach”
  • Multiple RCTs but significant heterogeneity
  • How to implement?
    • Staff education
    • Recreational therapy

Abraha I et al BMJ Open 2017
Nonpharmacological interventions

Behavioral interventions

• Probably not helpful:
  • Psychotherapy

• Reality orientation

• Sensory interventions: no effect on agitation from light therapy (3 studies) or aromatherapy (6 studies).
Nonpharmacological interventions

• Environmental considerations
  • Safety with out restraints
    • “hiding” hazards
  • Stimulation: not too much or too little
Nonpharmacological interventions

• Not much evidence:
  • Therapeutic touch
  • Validation therapy (Naomi Feil)
    Focuses on the emotional content rather than factual content, validates person’s subjective reality.
Nonpharmacological interventions

- Conflicting evidence
  - Person-centered care
    - Trained staff promote recognition of people with dementia as individuals.
    - Understand their life stories and interests.
    - Staff education more effective if combined with supervision
Nonpharmacological interventions

• Reminiscence
  • Discussing past experiences, pictures, songs, familiar items
  • Can be helpful to improve mood
  • Not shown to be helpful in severe agitation

• Personalized exercise interventions
  • Tailored to individual preferences and abilities
  • May be helpful as part of a “personalized pleasant activities approach”, but not much evidence for severe agitation.
Nonpharm interventions: \textit{in the community}

- ACT (Advanced Caregiver Training) - Gitlin et al JAGS 2010

- 272 caregiver-dementia patient pairs

- 10 visits from ACT trained OT’s and advanced practice nurses over 16 weeks

- Follow up at 24 weeks: improvement in target behaviors (resistance to care, argumentativeness), improved caregiver depressive symptoms and confidence in managing behavior
Advanced Caregiver Training

• Intervention:
  • (1) Patient-based: unmet needs, discomfort, pain, constipation, health
  • (2) Caregiver-based: positive communication (tone of voice, use of touch, reassurance, statements to avoid), task simplification, identify antecedents, stress reduction techniques
  • (3) Environment-based: clutter, hazards, easy navigability

• Specific strategies for target behaviors
Drug treatment - principles

• Tailor to the target symptom(s)
  • Aim to reduce severity of symptoms
• Consider potential harms
• Start low and go slow – reassess in 3-7 days
• Try tapering / stopping drug in 3 months
  • Some behaviours decline as disease worsens
  • 40% of BPSD symptoms spontaneously resolve
Behaviors not (usually) responsive to medication

- Aimless wandering
- Inappropriate urination/defecation
- Inappropriate dressing/undressing
- Annoying perseverative activities
- Vocal disturbing behavior
- Hiding/hoarding
- Pushing wheelchair bound co-patient
- Eating in-edibles
- Tugging at/removal of restraints
Behaviors responsive (perhaps) to medication

- Physical aggression
- Anxious, restless
- Sadness, crying
- Withdrawn, apathetic
- Sleep disturbance

- Delusions and hallucinations
- Sexually inappropriate behavior with agitation
Drug treatment

• **Major depression (with coexisting anxiety)**
  - If Severe, treat with antidepressant: CCSMH Level A
  - If mild/Mod try psychosocial intervention first: CCSMH Level A

• SSRIs (citalopram, sertraline)
• Venlafaxine
• Mirtazapine
• Bupropion

Choice of antidepressants: CCSMH Level B
No evidence of benefit of antidepressant in depression/dementia: CADTH
Course should be 12 months if first episode: CCSMH Level A
Drug treatment

• **Sexually inappropriate behaviour**

• First remove disinhibiting drugs!

• Limited data
  • SSRI
  • Beta blocker
Drug treatment

• *Sleep disturbance*

• First assess for medical reason or drug cause

• Limited data
  • Melatonin
  • Zoplicone 3.75mg qhs for 3-4 weeks
  • Doxepin 6mg qhs (not help with sleep latency)

CADTH
Drug treatment

• Apathy, loss of interest / drive

• Cholinesterase inhibitor

• Dopamine agonists (?)
Drug treatment

• Anxiety – *pacing, chanting, agitation*

• SSRI (citalopram, sertraline)

• Acetaminophen (In Acute Care Setting only)
Drug treatment

- *Psychosis – delusions / hallucinations,*
- *Agitation, and aggression*

- **Atypical Antipsychotics**
  - Initial: Risperidone 0.25-0.5mg PO qhs.
  - May Need 1-2mg total daily dose (usually divided twice a day)

- **Cholinesterase inhibitors**
  - **First Line Medication: CCSMH Level B**

- **SSRIs**

- **Memantine**

- **Others**
  - Betablockers
  - Acetaminophen

- **Dementia with Lewy Bodies: CCSMH Level B**
BPSD and antipsychotic use

- 15 RCTs of antipsychotic use in patients with AD
  - Modest clinical effectiveness
- Not all antipsychotics are equal
  - Meta-analysis found no evidence for quetiapine
  - Best evidence is for risperidone (5 RCTs) – still borderline clinically meaningful with exception of aggression
- High placebo response rates
  - Corbett et al; BMJ Nov 2014
- Risperidone approved for symptomatic management of aggression and psychotic symptoms in Severe Alzheimer’s Dementia – Black Box Warning Additionally. 1.6 increased risk of death

Product Monograph: Janssen Canada
Adverse effects of antipsychotics

- Considerable risk of adverse events
- 1% attributable risk of mortality and significant acceleration of cognitive decline over 12 weeks of treatment
  - NNH 100 (Death after 10-12 weeks)
- Significant reduction in mortality associated with discontinuation
  - 59% mortality vs. 30% over 36 months

Corbett et al; BMJ Nov 2014
Are antipsychotics safe?

• Warnings with all 3 atypicals
  • Threefold increased risk of stroke

• Concerns:
  • Weight gain / edema
  • Glucose and lipid metabolism
  • Anticholinergic side-effects - sedation
  • Extrapyramidal side-effects - falls
  • Prolonged Q-Tc interval
  • Infections - pneumonia

• Avoid use if patient has Lewy-Body disease (neuroleptic sensitivity)
Antipsychotics and BPSD

• For most people with dementia the risk of harm of antipsychotic treatment outweighs likelihood of benefit.

• If severe aggression or psychosis that has not responded to alternative treatments use risperidone for a maximum of 12 weeks.

• If taking for more than 12 weeks, drug should be reviewed and discontinued unless at least two previous attempts have failed.

• 70% individuals weaned off have no recurrence of Sx.

Corbett et al; BMJ 2014: 349
Some Cases:
Case 1:

- Daughter calls you – upset because the administrator of her father’s assisted living facility called the police twice when her father (mild-mod dementia) allegedly touched staff inappropriately on several occasions
  - No previous sexually inappropriate behaviour
  - “Not in Dad’s character.”
- Recently widowed
- No new medical illness
- No change in staff
- Recently started on donepezil (Aricept)
- Other meds: Pramipexole for RLS

- No change on exam – MMSE 25/30
What would you do?

1. Start haloperidol 1mg BID
2. Start lorazepam 0.5mg BID
3. Adult day program
4. Advise daughter to get legal advice
5. Review medications
6. Polite but firm redirection
7. Suggest the facility hire more male caregivers
Case 2

• Wife calls you crying – “I’m at my wits end….I am exhausted…I can’t carry on.”

• Husband with dementia (severe) goes to bed at 5:30PM and wakes at 12:30AM gets dressed and tries to leave apartment

• No naps; he walks for miles every day

• Trazodone 75mg qhs “..not helping anymore”

• No new illness or medication

• No change in environment or caregiver

• Exam unchanged; MMSE 15/30
What would you do?

1. Start haldol 1mg BID
2. Start lorazepam 0.5mg BID
3. ED – CT brain: new brain lesion?
4. Emphasize importance of sleep hygiene / routine night time cues
5. Zoplicone 3.75mg qhs
6. Warm milk and back rub before bed
7. Increase respite for caregiver
Case 3

- Husband calls you alarmed that his wife (dementia - severe stage) is having new odd ideas
  - “She keeps asking to go home.”
  - “She asks me who I am and where the real Frank is?”
  - “She thinks I’m carrying on behind her back...I had a prostate operation years ago!”
- No new illness or medication
- No change in environment or caregiver
- Exam unchanged  MMSE 18/30 pleasant
- Labs normal
What would you do?

1. Start haloperidol 1mg BID
2. Start lorazepam 0.5mg BID
3. Suggest marital counselling
4. Educate caregiver about redirection, distraction and calming methods
5. Contact the Alzheimer Society
6. Increase supports for caregiver
7. Ophthalmology consult for visual assessment
Case 4

• ED: “Please assess frail elderly man living with his daughter” - 3rd ED visit in 10 days
• Daughter: “I can’t carry on!”
• Severe stage dementia – usually pleasant and cooperative
• Fell down basement stairs 2 weeks before
• New agitation, resistiveness to care, incontinence, anger and decreased mobility
• Difficult exam - normal V/S
• Labs normal
What would you do?

1. Start haldol 1mg BID
2. Start lorazepam 0.5mg BID
3. Tell daughter: “Get it together and take your dad home!”
4. Call Alzheimer Society - make a donation
5. X-ray hips and back
6. Start acetaminophen for presumed fractures and pain
What help is out there

- Challenging behaviours nurse
- 1(800)225-7225

- Alzheimer’s Society – First Link

- NSHA Central Zone: Geriatric Psychiatry
  - Limited help outside of central zone but always open to phone conversations.
References


• www.piecescanada.com

• Kales HC, Gitlin LN, Lyketsos CG. BMJ. Assessment and management of behavioral and psychological symptoms of dementia. 2015 Mar 2;350:h369. doi: 10.1136/bmj.h369


References

• CCSMH:
  • https://ccsmh.ca/projects/long-term-care-homes/
  • “The Assessment and Treatment of Mental Health Issues in Long-Term Care – 2006 and 2014 Update.”

• IPA:
  • https://www.ipa-online.org/publications/guides-to-bpsd

• CADTH:
  • https://www.cadth.ca/
  • “Benzodiazepines in older adults: a review of clinical effectiveness, cost effectiveness and guidelines”
  • “Prevention and Management of Violence in Long-Term Care: Clinical Evidence and Guideleins”
  • “Removal of Physical Restraints in Long Term Care Settings”
  • “Therapeutic Recreation for elderly and mental health patients”
  • “Multidisciplinary Team Care for Dementia”

• CCCDTD4

• Choosing Wisely Canada
References


• Corbett A, Burns A, Ballard C. Don't use antipsychotics routinely to treat agitation and aggression in people with dementia. BMJ. 2014 Nov 3;349:g6420.
