Managing Complex Dementia Responsive Behaviours

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Faculty/Presenter Disclosure

- **Presenters:** Cara Macanuel, Paris Lai, and Carole Cohen

- **Relationships with financial sponsors:**
  - **Grants/Research Support:** None.
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  - **Patents**: None.
  - **Other:** None.

Learning Outcomes

- Develop an approach to assessing dementia responsive behaviours

- Appreciate when to use non-pharmacological and pharmacological strategies to manage these behaviours

- Identify potential resources to assist in managing these behaviours

Case Study: Mr. O

- 77 year old married man living with his wife in a very small one bedroom apartment. The couple recently relocated from Halifax and have limited social contacts.

- Mr. O was diagnosed with Major Neurocognitive Disorder 8 years ago. There are no past results of cognitive testing available.

- He is dependent for all iADLs and needs assistance with dressing, toileting and showering. He often voids in the sink. He is currently experiencing visual hallucinations of children, dogs and cars. He has intermittent insomnia. He is reported to yell and scream when upset. He has physically responsive behaviours in the context of personal care. He has support for showering twice a week from HCCSS and private caregivers twice a week. He attended a day program in Halifax but not now. His wife attends a support group.

Case Study: Mr. O

- Mr. O has a grade 11 education. He witnessed the death of a sibling in a fire as a child. He has been married for 40 years and has two daughters who live out of the country. He worked as a gardener and then as a truck driver for 30 years. He used to enjoy watching sports, doing number puzzles, gardening and chess. He likes listening to the Rolling Stones. One of his daughters has been treated for depression. His wife is named POA for personal care and property.

- Past medical history includes eczema, dyslipidemia, left hip replacement, cataract extractions X 2, peripheral vision loss in right eye, moderate hearing loss and ongoing dental issues. His current medications include donepezil 10 mg od and memantine 10 mg bid. He has no known allergies.

Case Study: Mr. O

- Mr. O is seen in his home. He appears his stated age and in good physical health with no evidence of tremor or localizing neurological signs. He appears calm and in good spirits. He is able to eat his cereal without assistance and drink from a mug but puts the mug into the cereal bowl instead of the table before finishing its contents. His wife is able to get him to take his medication by handing it to him but he needs prompting and assistance to drink the water. He becomes agitated when his wife tries to put on his socks so she stops. Later he puts on the slippers that were at his feet on his own without socks. He cannot answer any questions directly answering with questions or non sequiturs. When asked how the MD could be helpful he says "what have you got?" After his wife tried to help him with his socks he asked if "he was in trouble". At one point he starts to talk about numbers and things that need to be done and his wife notes this probably relates to his previous work. Cognitive testing was not possible.

Please identify some salient features from the case.

- Please type your answers in the chat box.

Important Features in Case Study of Mr. O

- History of trauma
- Family history of depression (is he more susceptible to depression?)
- Limited education
- Past interests and employment – how do they affect his presentation, how might they affect interventions
- Relatively young onset of dementia – is this important for prognosis, progression, life stage and effect on family
- Current diagnosis – is there a component of LBD (might have implications for pharmacological treatment & monitoring of success given fluctuations)

- Caregiver knowledge – what does she understand,
- Caregiver stress & need for respite
- Physical health concerns – is he is in pain, how well can he see, hear, do the dental issues need to be addressed
- Very small apartment – what is the bathroom like?
- Current symptoms: hallucinations
-       ? aphasia
-       ? paranoia
-       ? agnosia
-       ? apraxia

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Non-Pharmacological Approach

Where to start?

- All behaviours are in response to an unmet need
  - Assess the client, the environment, and the approach to care
- Assessments used
  - P.I.E.C.E.S theoretical approach
    - **P**: Physical
    - **I:** Intellectual
      - Aphasia, Agnosia, Anosognosia, Amnesia, Apraxia, Altered Perception, Apathy
    - **E**: Emotional
    - **C**: Capabilities
    - **E:** Environment
    - **S**: Social
  - Dementia Observation Scale (DOS)
  - ABC tracking
  - PAIN-AD

What is the function of the behaviour?

- Sensory Stimulation
  - Comfort/enjoyment

- Escape/Avoidance
  - Discomfort/displeasure

- Attention
  - Seeking a response

- Tangible
  - Seeking an item

Please discuss any non-pharmacological suggestions you have for the management of this case.

- Please type your answers in the chat box.

Non-Pharmacological Recommendations

- **Managing the 7 A's:**
  - Education to the personal support workers→ Capacity building
  - Modify communication:
    - Use demonstration to help when communicating
    - Avoid open ended questions
    - Make eye contact
    - Be at the same physical level as him
  - Slow movements
  - Guide his hands to hold the grab bars
  - Gently tap the leg you want him to move
  - Use marching steps to help get him to lift his leg (ie "March with me, 1,2,3)
  - Consistency with care
  - Consider pictures of the PSWs to cue client

- **Respect privacy:**
  - Consider Velcro on the towel to help hold it up
  - Avoid fully undressing the client (i.e. try bathing suite)
  - Give the client a washcloth or hand towel to cover areas of his body that have already been washed
  - Increase PSW hours to allow for more time
  - Consider flushable wipes after toileting to increase hygiene

Recommendations Continued

- **Environmental changes:**
  - Consider covering the mirror
  - Run the shower when you are trying to undress him to help cue him that it is time for the shower
  - Move the shower curtain to the far wall to show case the shower
  - Use a light coloured mat outside of the tub
  - Consider coloured non-slip strips inside the tub
  - Consider target in toilet
  - Play his favourite music in the bathroom (try singing with him to distract)

- **Response to the function of the behaviour:**
  - Walk away and re-approach **before** the behaviours occur
  - Step back and put your hands up in a surrender position
  - Avoid having your body fully facing the client, instead have your body angled
  - Manage pain *Consider Tylenol 30 minutes prior to care
  - Consider having client "accidently" wet to encourage change of clothes

Non-Pharmacological Approach

- Potential triggers to his behaviours were:

  - 7 A's of dementia:
    - Amnesia
    - Anosognosia
    - Aphasia
    - Apraxia
    - Apathy
    - Altered perception
    - Agnosia

  - Environmental triggers:
    - Small environment
    - Large mirror in bathroom
    - Dark coloured mat
    - Under stimulation during the day

  - Inconsistent approach to care
  - Query pain

- Function of the behaviour:
  - Escape/Avoidance

Pharmacological Management

- Non-pharmacological treatments remain mainstay of treatment for BPSD.

- Medications have the best evidence for:

  - Psychosis (e.g. delusions, hallucinations)

  - Aggression

BPSD symptoms that do NOT respond to medications

- Wandering, restlessness

- Repetitive vocalizations

- Hoarding

- Inappropriate urination/elimination

- Disrobing

- Pulling out of lines

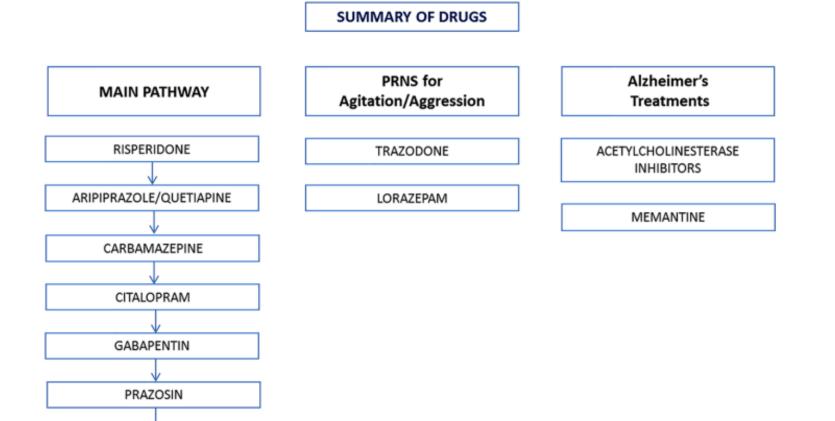# Pharmacological Management

- Consider medications if:

  - Behaviour is moderate or severe intensity

  - Poses a health/safety risk for the patient or others

  - Benefits of medications outweigh the risks

Sequential Algorithm for BPSD

SUMMARY OF DRUGS

MAIN PATHWAY	PRNS for Agitation/Aggression	Alzheimer's Treatments
RISPERIDONE	TRAZODONE	ACETYLCHOLINESTERASE INHIBITORS
ARIPIPRAZOLE/QUETIAPINE	LORAZEPAM	MEMANTINE
CARBAMAZEPINE		
CITALOPRAM		
GABAPENTIN		
PRAZOSIN		
COMBINATION or ECT		

Davies, 2018

Antipsychotic Class-Associated Severe Adverse Events and Mortality

- Black Box Warning "increased risk of death compared with placebo"
  - Deaths in patients on antipsychotics: 4.5%
    - Placebo group: 2.6%
  - Stroke in patients on antipsychotics: 3.8%
    - Placebo group: 1.5%

Side Effects of Antipsychotics

- Extrapyramidal symptoms
- Somnolence
- Urinary tract infection
- Edema
- Metabolic disturbance
- QTc prolongation
- Worsened cognitive impairment

Hategan, 2018

Antipsychotics for Agitation and Psychosis in Patients with Dementia

- Improvement on neuropsychiatric inventory (NPI) seen over 8-12 weeks
- No differences in efficacy between typical vs. atypical antipsychotics
- Side effects may negate effectiveness

Jeste DV, Blazer D, Casey D, Meeks T, Salzman C, Schneider L, Tariot P, Yaffe K. Neuropsychopharmacology (2007), 1-14.

Antidepressant (SSRIs)

- Citalopram 10-20 mg or perphenazine 5-8 mg
  - Both better than placebo
- Citalopram vs. risperidone over 12 weeks in non-depressed patients with dementia and BPSD
  - No difference in behavior between agents

Pollock et al. Am J Psychiatry;159;460-465; 2007 Sep 10

Seitz DP, Adunuri N, Gill SS, Gruneir A, Herrmann N, Rochon P. Antidepressants for agitation and psychosis in dementia. Cochrane Database Syst Rev. 2011;(2):CD008191.

CitAD Study

- Citalopram 10-30 mg daily vs. placebo at 9 weeks
  - QTc length increased by 18 ms at 30 mg/day
- 40% of citalopram group showed moderate-to-marked improvement vs. 26% for placebo
  - Fewer delusions, less anxiety, less irritability
  - Predictors of response: mild-to-moderate cognitive impairment, moderate severity agitation, middle age group (76-82 y.o.)

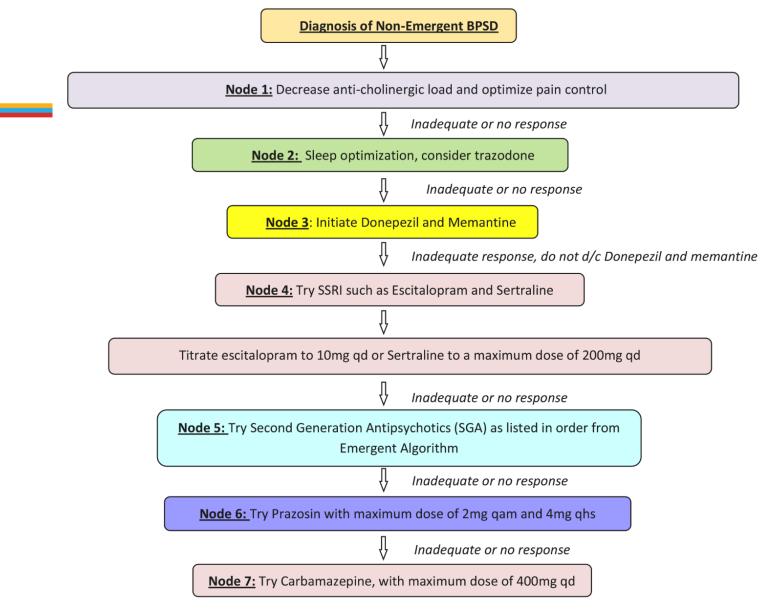# Please discuss any medications you would consider for the management of this case.

- Please type your answers in the chat box.

Figure 4. Flowchart for Non-Emergent BPSD
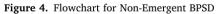
Chen, 2021

Nabilone

- Double-blind randomized controlled crossover trial of nabilone vs. placebo
  - N = 39 (mean age = 87 +/- 10)
  - MMSE = 6.5 +/- 6.8
  - Nabilone 1.6 mg +/- 0.5 mg
- Reduced agitation
- Reduced caregiver distress
- More sedation with nabilone

Herrmann, 2019, AJGP

Gabapentin

- Case reports and case series suggest effectiveness for agitation

  - Also case reports of worsening in patients with dementia with Lewy bodies

- Considerations:

  - Monitor for sedation

  - Monitor for gait disturbances

  - Renally excreted

Kim, 2008

Resources

- https://www.behaviouralsupportsontario.ca/

- https://brainxchange.ca/

- https://www.dementiacarers.ca/

- https://alzheimer.ca/en

Resources

Sequential drug treatment algorithm for agitation and aggression in Alzheimer's and mixed dementia

Simon JC Davies ✉, Amer M Burhan, Donna Kim, Philip Gerretsen, Ariel Graff-Guerrero, Vincent L Woo, Sanjeev Kumar, Sarah Colman, Bruce G Pollock, Benoit H Mulsant, and Tarek K Rajji -8 View all authors and affiliations

The Psychopharmacology Algorithm Project at the Harvard South Shore Program: An update on management of behavioral and psychological symptoms in dementia

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Questions?