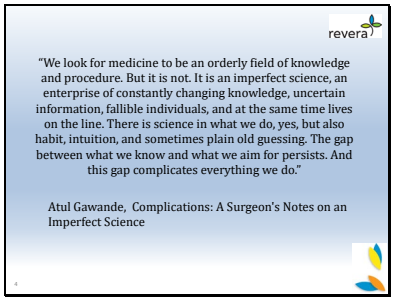
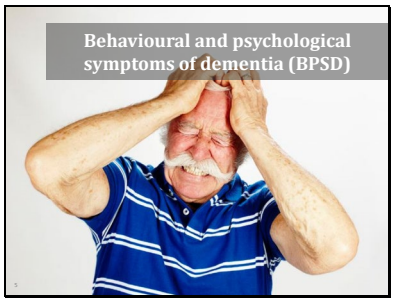
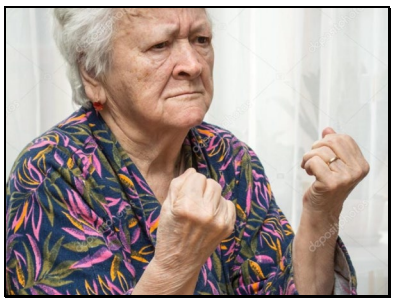


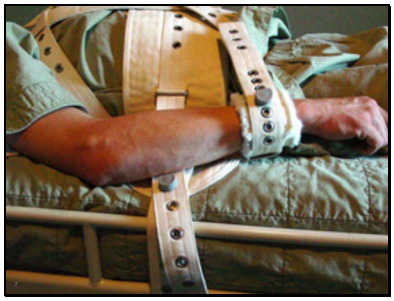
Staff, physicians, family members are looking for an effective treatment for the management of BPSD. Currently the data is far from perfect. As well, the majority of pharmaceutical studies include a younger, healthier population without significant comorbidity, making it challenging to extrapolate data to our population.



Defined by the International Psychogeriatric Association as the "symptoms of disturbed perception, thought content, mood or behavior that frequently occur in patients with dementia." Other terms include neuropsychiatric symptoms of dementia and non-cognitive symptoms of dementia.



Most common is apathy, followed by agitation/aggression, irritability, depression and delusions. Other common behaviours include, anxiety, wandering, exit-seeking, pacing, hoarding, sexual disinhibition, disrobing, inappropriate voiding and defecating, disruptive vocalization.



Present in more than 80% of persons with dementia
They lead to earlier placement in LTC and a more rapid decline in both cognition and function
They are distressing to the person experiencing them as well as family and staff
They result in increased use of physical and chemical restraints
They lead to more complications in hospital
They increase the cost of institutional care

Delirium vs. Dementia vs. Depression

Features	Delirium	Dementia	Depression
Onset	Acute (hours to days)	Insidious (months to years)	Acute or Insidious (wks to months)
Course	Fluctuating	Progressive	May be chronic
Duration	Hours to weeks	Months to years	Months to years
Consciousness	Altered	Usually clear	Clear
Attention	Impaired	Normal except in severe dementia	May be decreased
Psychomotor changes	Increased or decreased	Often normal	May be slowed in severe cases
Reversibility	Usually	Irreversible	Usually

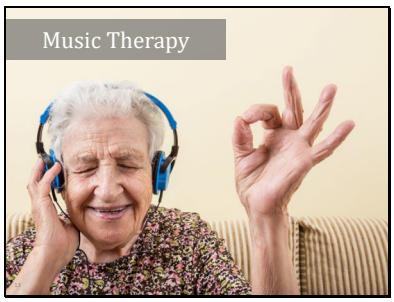
Consider:
Duration of symptoms. Is it abrupt? Is this a delirium
Untreated or undertreated depression
Infectious causes
Hearing or visual impairment
Constipation
Pain
Medication side effects
Environment
Other unmet needs

38 systematic reviews and 142 studies that included at least one comparative study evaluating any non-pharmacological intervention, to treat BPSD

Acupressure, aromatherapy (lemon balm, lavender), massage/touch therapy, light therapy, sensory garden
Lemon balm massaged on the face and arms twice daily for four weeks demonstrated a 35% reduction CMAI scores vs. 11% reduction with sunflower oil
Median behaviours scores fell by 20% in a dementia ward that was sprayed with 2% lavender oil for two hours daily on alternate days
There was no evidence that light therapy was effective.

Multisensory stimulation therapy
Despite widespread use of these rooms, there were only three studies found. One found no effect and two found a short-term effect only, even in an integrated snoezelen program.

The authors did a comprehensive literature search and of 23 studies, only 18 recruited persons with dementia and only 10 investigated the effects of animal assisted therapy on behaviours. Several small studies suggest that the presence of a dog reduces aggression and agitation, as well as promoting social behavior in people with dementia. One study has shown that aquaria in dining rooms of dementia care units stimulate residents to eat more of their meals and to gain weight but is limited by the small number of facilities studied. There is preliminary evidence that robotic pets may provide pleasure and interest to people with dementia. That was a really small study with an N of 9 and where they introduced a plush cat and a robotic cat. There was a significant increase in pleasure and interest with the robotic cat, but no reduction in agitation. The soft toy cat significantly reduced agitation.



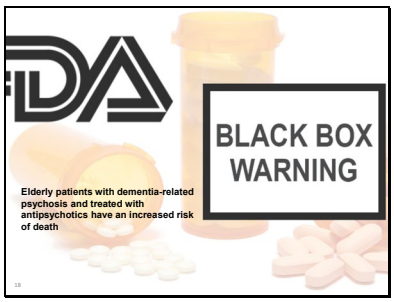
Among sensory simulation interventions, the only convincingly effective intervention for reducing behavioural
symptoms (specifically agitation and aggressive behaviour) was music therapy.

Word games, gardening and horticulture, puzzles, board games, cooking,
Multiple studies but quality of studies was low, sample size not powered enough to detect statistically significant results,
Overall, convincing evidence was lacking.

There is good evidence that staff education and training can reduce BPSD. These include person-centred care, abilities-focused care, behavioural-oriented approach, emotion-oriented approach, and communication skills. There was significant variability in the way these studies were designed and their outcome measures. The authors identified that staff training appears to be a good option for management of BPSD but requires more standardization.

Is the description of the behavior accurate?
Is there any pattern to the behavior? (DOS charting)
Does behaviour require intervention? Will it help? Behaviours that do not respond include disrobing, wandering, eating non-edible things, hoarding, disruptive vocalization, annoying or perseverative behaviours

Current classes used for treatment of BPSD: antipsychotics, anticonvulsants, antidepressants, anxiolytics, cholinesterase inhibitors and NMDA modulators
Risperidone, aripiprazole and olanzapine have the strongest evidence
NNT for significant improvement 5-14
OR for significant improvement compared to placebo 1.5-2.5
White paper from the American College of Neuropsychpharmacology from 2007 that said**: Despite the risks associated with antipsychotic drugs, "there is insufficient evidence to suggest that psychotropics other than antipsychotics represent an overall effective and safe, let alone better, treatment choice for psychosis or agitation in dementia,"**

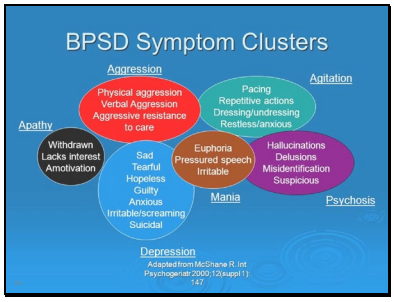


The black box warning has been added to all first and second generation antipsychotics

Increased risk of CV events based on a meta-analysis that showed a 2.2% occurrence of CV events in the study population. The risk in the general population was 0.8%. It did not differentiate between TIA and CVA and there was no indication as to whether the people in the study had pre-existing risk

The DART-AD trial did demonstrate a 1 year survival rate of 70% after 12 months of antipsychotic vs. 77% with placebo

Health Canada has approved risperidone for "short-term symptomatic management of inappropriate behavior due to aggression and/or psychosis" in dementia.



Identifying the symptom cluster will help to determine which strategy may be most effective.

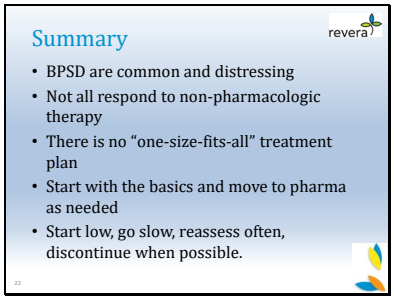
Depression and anxiety should be treated with antidepressants. Currently, citalopram and sertraline have the best evidence

Psychosis and aggression should be managed with antipsychotics (if warranted)

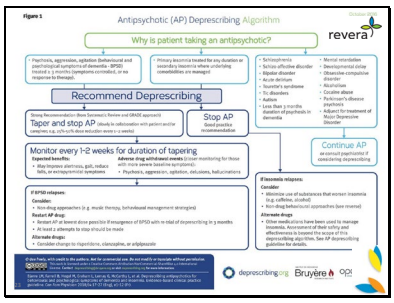
Try to choose the least anticholinergic drugs and reduce overall drug burden to prevent interactions

Not typically recommended but can be used in the following scenarios:
During the dose titration phase in conjunction with regular dosing
During tapering in the event of a recurrence of behaviours
In advance of unavoidable activities known to trigger significantly aggressive or agitated behavior

Sunnybrook currently doing a clinical trial on the safety and efficacy of nabilone for agitation in Alzheimers
There is one study of 11 AD patients recruited to an open-label 4-week trial. There was a significant reduction in SGI and NPI scores in the ten people who completed the study.
There are some promising results coming from studies but currently not enough data on efficacy or safety to recommend this as first-line treatment



The goal is to use medication only when clinically indicated, starting at the lowest dose, titrating slowly and monitoring closely for extrapraymidal side effects and reduction in behaviour
Tapering and discontinuing should be the goal and it should be done slowly: 25-50% of the dose every 2-4 weeks monitoring for re-emergence of behaviours.



Deprescribing.org has tools for reduction and discontinuation of benzodiazepines and antipsychotics, among others

They include the guidelines as well as patient information material

Our care teams work hard in a challenging environment. Between negative media, strict regulations, family demands and expectations and lack of appropriate guidelines and generally ineffective medications, it is tough work for everybody. Thank you for doing an excellent job to improve the lives of our residents.