Behavioral management of patients living with dementia

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2

Objectives

1. Develop an approach to the management their patients with behavioral & psychological symptoms of dementia (BPSD) that includes behavioral & environmental interventions as primary and psychotropic medications as secondary.
2. Describe the psychopharmacological options that may be useful for patients with BPSD.

Behavioral & psychological symptoms of dementia

Approximately 90% of people with dementia experience behavioral and psychological symptoms (BPSD).

First line treatment involves non-pharmacological approaches such as behavioral management, staff training, changes in environment, etc.

We may turn to medications when behaviors are dangerous to resident/others or distressing to resident.

Prevalence of specific BPSD

Symptom	Prevalence
apathy	49%
depression	42%
aggression	40%
sleep disorder	39%
anxiety	39%
irritability	36%
appetite disorder	34%
aberrant motor behavior	32%
delusions	31%
disinhibition	17%
hallucinations	16%
euphoria	7%

Zhao et al., *J Affect Disorder* 2016;190:264-271.

Overview of management

- treat underlying medical causes
- discontinue offending medications & substances
- support & educate caregivers & other family members
- develop a psychological, behavioral & environmental management plan
- avoid adding new medications, unless there is risk of harm to patient or others
- if a medication is added, regularly monitor outcomes & attempt discontinuation
- ensure that patients & caregivers are in a safe environment

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019.

Psychological, behavioral & environmental interventions (1)

- most effective interventions for patients are:
  - structured activities
  - music therapy
  - multisensory stimulation, e.g., Snoezelen
  - reminiscence therapy
  - problem-solving therapy

- most effective interventions for facilities are:
  - training programs for formal caregivers, e.g., **DICE**
  - dementia care mapping or other quality improvement tools
- most effective intervention for families is supporting family caregivers

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019. 7

Psychological, behavioral & environmental interventions (2)

- most studies have been in long-term care, and so may not be applicable to home
- interventions should be culturally sensitive and may need to be tailored to patients' and caregivers' cultural background
- each of these interventions will require some investment of resources (e.g., training of staff)
- **because no intervention is effective for all patients, an individualized plan should be developed for each person and updated over time as circumstances change**

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019. 8

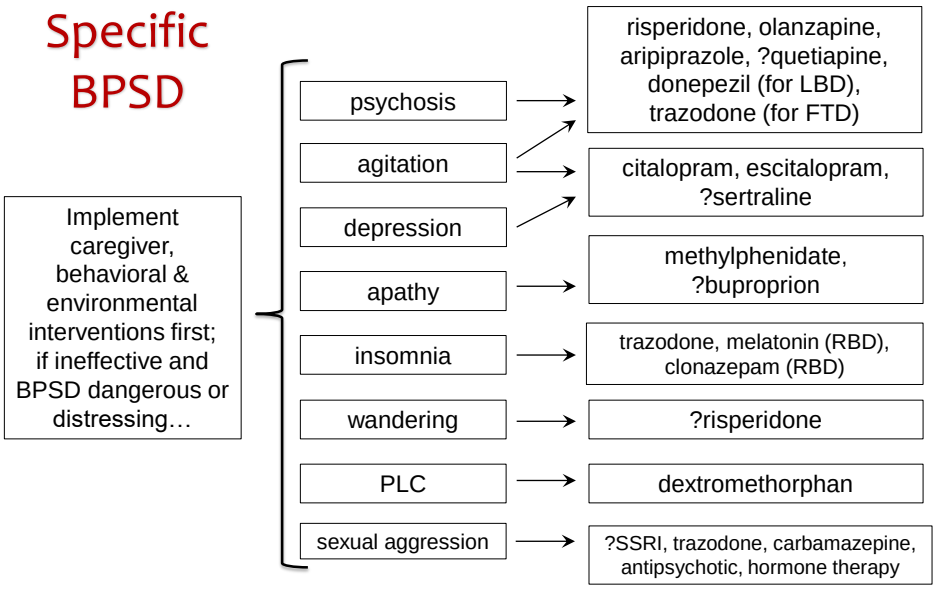
When to turn to medications for BPSD

Nonemergency antipsychotic medication should only be used for the treatment of agitation or psychosis in patients with dementia when symptoms are severe, are dangerous, and/or cause significant distress to the patient (*emphasis added*)

Before treatment, the potential risks and benefits from antipsychotic medication should be assessed by the clinician and discussed with the patient, surrogate decision maker, or other family member

The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients with Dementia 2016.

Specific BPSD



Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019. FTD = frontotemporal dementia, LBD = Lewy body disease, PLC = pathological laughing & crying, RBD = REM sleep behavior disorder.

Start low

Go slow

Everything is on the Beers list

Antipsychotics

atypical antipsychotics

risperidone

olanzapine

aripiprazole

quetiapine

clozapine

brexpiprazole

typical antipsychotics

haloperidol

Atypical antipsychotics: side effects

Side effect	Comments
death	antipsychotic 3.5% vs. placebo 2.2% in first 12 weeks, plus continued risk over first three years
sedation	antipsychotic 20% vs. placebo 8%
cognitive impairment	equivalent to one year of cognitive decline
extrapyramidal symptoms	haloperidol > risperidone > aripiprazole > olanzapine > quetiapine = clozapine
falls & fractures	1.5-2.5x increased risk
metabolic	weight gain: olanzapine > quetiapine & risperidone
stroke	risperidone 2.2% vs. placebo 1.1%; also higher risk with olanzapine
others	edema, neutropenia, ?venous thromboembolism

Schneider et al JAMA 2005; 294: 1934-43; Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019.

Atypical antipsychotics: efficacy

- best evidence for risperidone, olanzapine and aripiprazole
  - mixed evidence for quetiapine
  - evidence for clozapine in very specific scenarios
  - early evidence for brexpiprazole
- overall, small effect on behavioral symptoms:
  - pooled effect size = 0.16
  - number needed to treat = 6
  - significant placebo effects (30-50% response rates)
- response usually in first 2-4 weeks
- no studies of other antipsychotics

Maglione et al., *Comparative Effective Review* 43, 2011. Schneider et al., *Am J Geriatr Psych* 2006;14:191-210.

Starting antipsychotics

- Treatment should be initiated at a low dose and titrated up to the minimum effective dose as tolerated
- If the patient experiences a clinically significant side effect, the potential risks and benefits of the antipsychotic should be reviewed by the clinician to determine if tapering and discontinuing is indicated
- If there is no clinically significant response after a 4-week trial of an adequate dose of an antipsychotic drug, the medication should be tapered and withdrawn
- Also: include a plan for stopping antipsychotics within 4-6 months

The American Psychiatric Association Practice Guideline on the Use of Antipsychotics to Treat Agitation or Psychosis in Patients with Dementia 2016.

15

Antidepressants (1)

- best risk-benefit profile of any drug class for pharmacological treatment of BPSD, specifically of agitation and depression
- **citalopram** 30 mg/d has the strongest evidence for efficacy for agitation, but it is associated with QT prolongation
- **escitalopram** may be effective, without QT prolongation as a side effect and with good cardiac safety
- **sertraline:** after initial (50-150 mg/d) for treating depression, more recent trials have not demonstrated efficacy (but well tolerated)

Farina et al., *Int J Geriatr Psychiatry* 2017; 32:32–49.

16

Antidepressants (2)

- **trazodone:** fairly strong evidence base for agitation in frontotemporal dementia; start 25-50 mg/d, titrate up to 250 mg/d as tolerated
- **bupropion:** very little evidence, but could be considered for apathy (though most recent study was negative); antidepressant least likely to cause hyponatremia
- **mirtazapine:** negative trials, but could be considered for insomnia or anorexia
- **duloxetine, fluoxetine, venlafaxine:** negative trials or very little evidence of efficacy
- **paroxetine, tricyclic antidepressants:** avoid, due to anticholinergic side effects
- **vortioxetine**: maybe beneficial for cognition as well as mood

Farina et al., *Int J Geriatr Psychiatry* 2017; 32:32–49; Maier et al., *JAMA Netw Open* 2020; 3(5):e206027; Cumbo et al., *J Prev Alzheimers Dis* 2019; 6(3):192-197..

17

Antidepressants (3)

- safety concerns
  - hyponatremia
    - risk factors include: female gender, age > 65, use of diuretics
    - possible with any antidepressant, but least likely with bupropion (and perhaps mirtazapine)
    - check baseline sodium, then 2-3 weeks after starting and after each dose increase
  - QT prolongation: citalopram
  - falls
  - GI side effects, weight loss

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019

18

Other pharmacological options (1)

Medication	Comments
acetaminophen	consider for all patients with BPSD, 1000 mg twice or three times daily
carbamazepine	risks include drug-drug interactions, hyponatremia, neutropenia/agranulocytosis
clonazepam	avoid, except in REM sleep behavior disorder
dextromethorphan	best evidence for pathological laughing & crying, combined with quinidine to increase half-life
donepezil	first choice for LBD, otherwise likely not effective for BPSD
gabapentin	very little evidence to support use
lorazepam	avoid, except in emergency situations

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019.

Other pharmacological options (2)

Medication	Comments
melatonin	1-3 mg 2-3 hours before bedtime, not likely to be effective except perhaps for REM sleep behavior disorder
memantine	not likely to be effective for BPSD
methylphenidate	for apathy, start at 5 mg morning & noon, titrate to 10 mg morning & noon, monitor blood pressure
pimavanserin	only for psychosis associated with Parkinson disease, may increase mortality
prazosin	one small study indicated efficacy, start 1 mg qhs, may increase to 2 mg qam and 4 mg qhs
valproate	do not use

Walaszek *Behavioral & Psychological Symptoms of Dementia* 2019.

Questions?

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