MANAGEMENT OF BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA

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BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD)

Learning Objectives:

• Review dementia epidemiology, prevalence, health disparities.
• Discuss the clinical management of BPSD.
• Review non pharmacological strategies for BPSD.
• Review pharmacological treatments for BPSD.
• Review current evidence on safety concerns with AP use for BPSD.
• Summarize antipsychotic (AP) utilization concerns, and CMS initiatives for national benchmarking.
• Discuss how treatment for BPSD may improve quality of life.
WHO HAS ALZHEIMER’S DISEASE?

• An estimated 5.5 million Americans have AD; there are more than 15 million caregivers.  
  (Alzheimer’s Assoc. 2013 Facts and Figures)
• The number of people with dementia has doubled since 1980.
• Based on the current trajectory, 13 million Americans over the age of 65 will have AD by 2050.  
  (Alzheimer’s Association, 2014).
ALZHEIMER’S DISEASE PREVALENCE

- The disease usually begins after age 60, and the risk goes up with age.
- For men and women ages 65-74 about 5% have AD.
- Age 85 and older, about 50% have the disease.
- U.S. estimated prevalence of dementia 14.7% older than 70 (NIH study, April, 2013).
PREVALENCE FOR BABY BOOM GENERATION

This means that nearly one in two of the baby boomers reaching 85 will develop AD. As a consequence, chances are that members of the baby boom generation reaching their mid-eighties, will either have AD, or be the caregiver for someone who has it.

(Senator Susan Collins on a Senate Special Committee on Aging, April 24, 2013).
Proportion of People Age 65 and Older with Alzheimer’s Disease and Other Dementias, by Race/Ethnicity -
Washington Heights-Inwood Columbia Aging Project, 2006

2012 Alzheimer’s Disease Facts & Figures, Alzheimer’s Association
POPULATIONS AT RISK: HEALTH DISPARITIES

Why are African Americans and Hispanic races twice as likely to get AD?

• genetics

• diseases associated with increased risk of CVD & dementia are similar, (e.g., diabetes, hypertension, hyperlipidemia), and more prevalent in some communities.

• Access to care and treatment.

(J. Karlawish, MD, NPR, 2013).
BEHAVIORAL AND PSYCHOLOGICAL SYMPTOMS OF DEMENTIA (BPSD)

- Agitation, aggression, anxiety, hallucinations, delusions and depression.
- Enormous burden on patients and families or caregivers and often precipitate nursing home admissions due to caregiver distress.
- The most common antecedents to nursing home admissions are wandering, agitation, incontinence, falls, and psychosis (Liperoti, Pedrone, & Corsonello, 2008).
- Management aims to reduce patient suffering, reduce risk of injury, and improve quality of life (QoL), (Mohamed, et al., 2012).
BPSD is seen in about 50% of patients with dementia, and 80-90% of persons with dementia in nursing homes.

No FDA approved medications for BPSD (AP are FDA approved for schizophrenia and bipolar disorders).

AP off-label use is common for severe geriatric agitation (Salamanca, 2011).

AP have 2-20% efficacy for BPSD (Maher, et al., 2011).

AP used for a target symptom causing distress, functional impairment, or danger to the patient (Salamanca, 2011).
TREATMENT STRATEGIES FOR BPSD

1. Define diagnosis and behavior
2. Consider comorbidities
3. Consider environmental causes
4. Institute nonpharmacological therapy
5. Institute drug therapy
NON PHARMACOLOGICAL MANAGEMENT

• Provide a safe and friendly environment.
• Maintain a set routine.
• Avoid over-stimulation or under-stimulation.
• Orientation with clocks, calendars, newspapers.
• Regular social interaction and activity.
• Increasing pleasant events.
• Psych-education classes/training for caregivers.
NON PHARMACOLOGICAL INTERVENTIONS

• Time outside.
• Exercise or movement (ambulation or pushing w/c).
• Family photo album, memory book.
• Healthy snacks.
• Scheduled time with family or friends staggered over time.
• Pet visits or a stuffed animal to hold.
• Music, art sessions, recreation (may not be practical for short attention spans).
• Gentle massage or brushing hair.
• Regular, unhurried routine.
PHARMACOLOGICAL TREATMENT FOR BPSD

• First treat for pain, depression, anxiety or a sleep disorder if present.
• Consider antidepressants, cognitive enhancers, or anticonvulsants before antipsychotics.
• Use the lowest effective dose.
• Titrate slowly.
• Consider drug-drug interactions.
• Withdraw drug if no benefit, and prior to commencing another agent.
• Full disclosure of risk v. benefit to patient and/or decision maker with consent documented in chart.

(Freeman, & Joska, 2012)
# RECOMMENDED DOSES IN ELDERLY PATIENTS

<table>
<thead>
<tr>
<th>Medication</th>
<th>Additional Notes</th>
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<tbody>
<tr>
<td><strong>Antidepressants</strong></td>
<td></td>
</tr>
<tr>
<td>SSRI</td>
<td></td>
</tr>
<tr>
<td>Citalopram 20 mg/day: initiate at 10 mg</td>
<td>Few CYP450 interactions</td>
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<tr>
<td>Sertraline 50-100 mg</td>
<td></td>
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<tr>
<td>Trazodone 25 mg at HS</td>
<td></td>
</tr>
<tr>
<td>SARI (serotonin 2 antagonist/reuptake inhibitor)</td>
<td></td>
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<tr>
<td><strong>Cholinesterase inhibitors</strong></td>
<td></td>
</tr>
<tr>
<td>Donepezil 5-10 mg during the day</td>
<td>GI side-effects are common</td>
</tr>
<tr>
<td><strong>NMDA receptor antagonist</strong></td>
<td></td>
</tr>
<tr>
<td>Memantine 10 mg twice daily</td>
<td>Dizziness and headache may occur</td>
</tr>
<tr>
<td><strong>Anticonvulsants</strong></td>
<td></td>
</tr>
<tr>
<td>Sodium valproate 10-15 mg/kg in divided doses</td>
<td>Start with smaller dose and titrate up</td>
</tr>
<tr>
<td><strong>Antipsychotics</strong></td>
<td></td>
</tr>
<tr>
<td>Typical</td>
<td></td>
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<tr>
<td>Haloperidol 0.5 -1 mg/day</td>
<td>Watch for EPSE, may increase prolactin, hypotension, sedation</td>
</tr>
<tr>
<td>Risperidone 0.5 mg twice daily: may initiate at 0.25 mg twice daily</td>
<td></td>
</tr>
<tr>
<td>Quetiapine 25-50 mg at HS</td>
<td></td>
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<tr>
<td>Olanzapine 2.5 – 10 mg / day</td>
<td></td>
</tr>
<tr>
<td>Atypical</td>
<td></td>
</tr>
<tr>
<td>Anticholinergic effect mild-mod</td>
<td>Freeman &amp; Joska, 2012</td>
</tr>
</tbody>
</table>
ANTIPSYCHOTIC SAFETY CONCERN

- 2005 an FDA analysis of data from 17 RCTs.
- (N=5377) older adults with BPSD given aripiprazole, olanzapine, quetiapine, or risperdone for 10 weeks.
- Findings: risk of death in the drug-treated patients was 1.6-1.7 higher than the placebo group. The rate of death was about 4.5% in drug-treated pts and about 2.6% in the placebo group. Most of the deaths appeared to be either cardiovascular (e.g., HF, sudden death) or infectious (e.g., pneumonia).

(AGS, 2011).
SAFETY CONCERN

• Black Box warnings issued 2005, 2007 for increased risk of death with atypical and conventional AP.
• Prevalence of AP use for BPSD in US nursing homes was about 20%, but trending down.
• AP possible side effects: extrapyramidal symptoms or tardive dyskinesia, sedation, gait disturbances, falls, anticholinergic side effects, orthostatic hypotension, QT interval prolongation, cerebrovascular events, and increased mortality.
ANTIPSYCHOTIC RISK IN OLDER ADULTS

Rossom, et al, (2010) five-year retrospective study using U.S. Veterans Administration data from more than 89,000 veterans did not find an increased risk of death in veterans with dementia who were prescribed lower doses of olanzapine (<2.5 mg/d), quetiapine (<50 mg/d), or risperdone (<1 mg/d). However at higher doses, atypical antipsychotics (excluding quetiapine) were associated with an increased risk of death. All doses of haloperidol were associated with increased mortality.
AP RISK AND DIABETES

- The landmark Clinical Antipsychotic Trials of Intervention Effectiveness-Alzheimer’s Disease (CATIE-AD) a large double blind RCT study (2006), which detected slight elevations in blood glucose levels among older adult out-patients with dementia who received 3 separate atypical AP compared to placebo over a 36 week period (Schneider, Tariot & Dagerman, 2006).
Jalbert, Daillo, Eaton, Miller & Lapane (2011) investigated the association between AP use and the risk of diabetes onset among nursing home residents with dementia. With (n = 2646) they found relative to non-users of AP, use of atypical AP was not associated with diabetes onset (adjusted odds ratio [AOR] 1.03; 95% CI, 0.84-1.27) and the risk of diabetes did not increase with length of time on treatment.
AP RISK OF FALLS WITH HIP FRACTURES

• Meta-analysis of multiple studies of first and second generation antidepressants and AP medications.
• 166 studies; 10 AP studies, and 14 antidepressant studies with more than 70,000 hip fracture cases.
• Conclusion: all psychotropic drug classes were associated with an increased risk of hip fractures in older adult populations.

Oderda, Young, Asche, & Pepper (2012)

<table>
<thead>
<tr>
<th>Drug Group</th>
<th>Odds Ratio</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional AP</td>
<td>1.68</td>
<td>1.43 – 1.99</td>
</tr>
<tr>
<td>Atypical AP</td>
<td>1.30</td>
<td>1.14 – 1.49</td>
</tr>
<tr>
<td>TCA</td>
<td>1.71</td>
<td>1.43 – 2.04</td>
</tr>
<tr>
<td>SSRI, SNRI, bupropion, mirtazapine, trazodone</td>
<td>1.94</td>
<td>1.37 – 2.76</td>
</tr>
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</table>
QT INTERVAL PROLONGATION

- QT interval prolongation predisposing patients to arrhythmias and sudden cardiac death is primarily a cumulative effect with other drugs that may prolong the QTc: QTc <450 for men; <460 for women.

- There is no clear consensus on the degree of drug-induced QT prolongation that requires drug discontinuation.

  (Al-Khatrib, LaPointe, Kramer & Califf, JAMA, 2003).
HEALTH POLICY:

- There is a great deal of concern over the use of antipsychotic (AP) medications to treat BPSD because of cost, increased risk of mortality and stroke, and modest efficacy.
- CMS spent more than 18.2 billion on atypical AP medications in 2012, about 25% of that was on NH residents.
- CMS objects to the cost of AP for Medicare beneficiaries because Medicare guidelines do not allow for off-label prescription reimbursements.
EXTERNAL OVERSIGHT:

- In March 2012 CMS launched an initiative to improve behavioral health and reduce the use of AP medications in NH residents.
- Rates of AP utilization are posted and benchmarked on Nursing Home Compare, began July 2012 (increased transparency and quality measures).
- CMS goal for 2013 was to reduce the prescribing of APs in NH by 15%, was met.

Annals of Long-Term Care: Clinical Care and Aging, 2013; 21(1):11.
UPDATED BEERS CRITERIA (AGS, 2012)

• Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults links AP medications with STRONG evidence-based recommendations to avoid in patients with dementia and cognitive impairment.

• These guidelines specify AP should NOT be used for BPSD unless non-pharmacological options have failed or if the patient is a threat to himself or others.

• A new third category: AP medications may be used with caution in older adults where AP in this category are associated with more risks than benefits but may be considered appropriate in certain circumstances or with individuals near the end of life.
QUALITY OF LIFE

• Psychosis and agitation with dementia decrease QoL (Matsui, et al., 2006; Banerjee, et al., 2006).

• Wetzels, et al., (2010) found that agitation and depression were strong predictors of poor QoL.

• Emerging research suggests that QoL in nursing home residents with advanced dementia may be improved with assessment and treatment of pain, depression and effective management of behavior problems.
CONCLUSION

• BPSD are common and cause significant distress among patients and caregivers.
• BPSD leads to caregiver burden, increased economic cost, decreased QoL, and precipitates early placement in nursing homes.
• The cause of BPSD is often multifactorial.
• Non pharmacological treatment is considered first line management of BPSD, and should be utilized with or without drug therapy.
• Antipsychotic medications increase the risk of death and CVA and are considered second line in the treatment of BPSD.
• Full risk-benefit profile with consent is necessary when prescribing all psychotropic medications.
• Depression, pain, and sleep disturbance should be actively managed if present and may lead to improved QoL for patients with BPSD.
REFERENCES


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Dementia Disease Trajectory. Retrieved from online.epocrates.com/data_dx/reg/1020/img/1020-4-ilne.gif

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