All patients with dementia should be screened for behavioral symptoms of dementia, because these symptoms may increase caregiver stress, patient injury, institutionalization, and morbidity.

### SCREENING

#### “Have there been any bothersome behavioral problems since the last visit?”

#### EXAMPLES OF DEMENTIA-RELATED BEHAVIORAL PROBLEMS

- Repetitive vocalizations:
  - Constant unwarranted requests for attention or help
  - Repetitive sentences or questioning
- Psychomotor hyperactivity:
  - Inappropriate dressing or disrobing
  - Repetitive non-purposeful movements
  - Picking at self
  - Opening and closing cupboards
- Physical aggression:
  - Pushing
  - Grabbing
  - Spitting
  - Scratching
  - Hitting
  - Biting
  - Kicking
  - Throwing items
  - Destroying property
- Self-neglect
- Resisting help with personal care
- Anger and irritability:
  - Complaining
  - Cursing
  - Screaming
- Manic-like behavior:
  - Emotional lability
  - Disinhibition
  - Irritability
  - Psychomotor hyperactivity
  - Hypersexuality
- Disturbance of sleep cycle:
  - Sleeping throughout the day; awake throughout the night
  - Insomnia
- Psychosis:
  - Hallucinations
  - Delusions
  - Paranoia
  - Depression
- Inappropriate sexual behavior
- Pacing or wandering

### HPI

- Rule out delirium (see AGS Geriatrics Evaluation and Management: Delirium)
- Document the following information:
  - Specific problem behavior
  - Triggers for the behavior, circumstances surrounding the behavior
  - Timing, onset, frequency, and duration of the behavior
  - Severity/impact of the behavior—is the patient or caregiver at risk of harm?
  - Attempted nonpharmacologic and pharmacologic interventions and their outcomes
  - Previous successful treatment strategies
- Caregiver can be given tracking sheets to follow behavior for 3–7 days, to bring to the clinician for review

### POTENTIAL TRIGGERS

<table>
<thead>
<tr>
<th>PHYSIOLOGIC TRIGGERS</th>
<th>ENVIRONMENTAL TRIGGERS</th>
<th>CAREGIVER COMMUNICATION TRIGGERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medications</td>
<td>Disruption to routine</td>
<td>Domineering communication style</td>
</tr>
<tr>
<td>Pain</td>
<td>Unfamiliar or new environment</td>
<td>Complex instructions</td>
</tr>
<tr>
<td>Hunger or thirst</td>
<td>Unfamiliar or new caregiver</td>
<td>Frequent corrections</td>
</tr>
<tr>
<td>Dehydration</td>
<td>Understimulation</td>
<td>Tense or rushed body language</td>
</tr>
<tr>
<td>Sensory deficits</td>
<td>Overstimulation</td>
<td></td>
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<tr>
<td>Constipation</td>
<td></td>
<td></td>
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<tr>
<td>Nausea</td>
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<tr>
<td>Urinary retention</td>
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<tr>
<td>Sleep disturbance</td>
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<tr>
<td>Lack of exercise</td>
<td></td>
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<tr>
<td>Dyspnea, hypoxia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infections (UTI, pneumonia)</td>
<td></td>
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<tr>
<td>Cardiovascular disorders</td>
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<tr>
<td>Metabolic disorders</td>
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</tbody>
</table>

### PAST MEDICAL HX

Investigate underlying medical or psychological disorders that could be contributing to behavior

### SOCIAL HX

- Document alcohol and drug use that could be contributing to behavioral problems
- Assess caregiver stress levels
- Assess patient’s risk for elder mistreatment
Thoroughly review patient’s medications (including over-the-counter); investigate if they trigger behavioral problems

**Perform a comprehensive exam to identify physiologic triggers for behavioral problems**

### Nonpharmacologic Management
- Nonpharmacologic interventions have been shown to be more effective than pharmacologic treatment for dementia-related behavioral problems and therefore should be attempted first
- Treat underlying physiologic, environmental, and caregiver communication triggers
  - Free educational resources available online from Alzheimer’s Disease Education and Referral Center (ADEAR) Web site: http://www.nia.nih.gov/alzheimers

### Pharmacologic Management
- Treat underlying physiologic triggers (see Potential Triggers)
- Treat targeted behavior with recommended pharmacotherapy (outlined in table below) if behavior is unresponsive to documented attempts at nonpharmacologic management or if there are documented concerns for patient or caregiver safety
  - Wandering and repetitive vocalizations do not respond to pharmacotherapy
  - Many medications for dementia-related behavioral problems are used off-label with serious side effects; therefore, document risk-benefit discussions before treating a vulnerable older adult with medications for behavioral symptoms
  - For detailed information on medication dosages, benefits, adverse reactions, and monitoring please refer to *Geriatric Review Syllabus, 7th edition, chapter 33*

<table>
<thead>
<tr>
<th>TARGET BEHAVIOR</th>
<th>MEDICATION CLASS</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Antidepressants (selective serotonin-reuptake inhibitors)</td>
<td>See AGS Geriatrics Evaluation and Management: Depression</td>
</tr>
<tr>
<td>Psychosis</td>
<td>Antipsychotics</td>
<td>Carry a Food and Drug Administration (FDA) black box warning of increased risk of mortality in patients with dementia (the rate of death was about 4.5% in drug-treated patients and about 2.6% in the placebo group). The FDA has indicated that risks/benefits of treatment should be reviewed and documented carefully with caregivers.</td>
</tr>
<tr>
<td>Anger</td>
<td>Mood Stabilizers</td>
<td>Depakote - can cause weight gain, tremor; monitor LFTs and platelets</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>Carbamazepine 100–600 mg/d</td>
<td>Carbamazepine - drug interactions; monitor sodium, CBC</td>
</tr>
<tr>
<td>Manic-like behavior</td>
<td>Sleep Medications</td>
<td>Treatment of primary sleep disturbances when good sleep hygiene and increasing daytime activity level are not successful (see the “Nonpharmacologic Management” section of AGS Geriatrics Evaluation and Management: Insomnia)</td>
</tr>
<tr>
<td>Disturbance of sleep cycle</td>
<td>Antiandrogens</td>
<td>Avoid use of benzodiazepines and antihistamines for sleep, due to risk of falls, fractures, disinhibition, and cognitive disturbance</td>
</tr>
<tr>
<td>Dangerous inappropriate sexual behavior or physical aggression</td>
<td>Benzodiazepines</td>
<td>There have been no controlled trials of zolpidem or zaleplon in sleep disturbances secondary to dementia</td>
</tr>
<tr>
<td>Use should be limited to emergency situations in which severe agitated behavior places the patient or others at risk of injury and has proven unresponsive to systematic trials of alternative medications</td>
<td></td>
<td>These medications should be avoided whenever possible</td>
</tr>
<tr>
<td></td>
<td>Lorazepam 0.25–1 mg po q8 hrs</td>
<td>When indicated, use a time-limited trial of a short-acting benzodiazepine (lorazepam):</td>
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<tr>
<td></td>
<td>Does not accumulate with repeated dosing</td>
<td>Does not accumulate with repeated dosing</td>
</tr>
<tr>
<td></td>
<td>Metabolism is not affected by age and liver disease</td>
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