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# A nondrug approach to dementia

Nearly 9 out of 10 patients with dementia also suffer from behavioral symptoms. Several nonpharmaceutical interventions hold promise.

## PRACTICE RECOMMENDATIONS

› *Attempt nonpharmacologic treatment for dementia behavioral problems before moving on to medications, which are of questionable efficacy for symptoms other than aggression and psychosis. (A)*

› *Obtain informed consent from patients and/or their caregivers if you plan to use antipsychotic medications because their use increases morbidity and mortality in the elderly. (A)*

### Strength of recommendation (SOR)

- (A) Good-quality patient-oriented evidence
- (B) Inconsistent or limited-quality patient-oriented evidence
- (C) Consensus, usual practice, opinion, disease-oriented evidence, case series

**CASE ▶** Ms. M, 86 years old, lives with her daughter, son-in-law, and granddaughter. For several years she has been forgetful, but she has never had a formal work-up for dementia. Her daughter finally brings her to their primary care physician because she was refusing to take showers, was increasingly irritable, and had tried to hit her daughter's husband.

In the office, however, Ms. M is calm and pleasant. The family says that most nights Ms. M gets up and wanders around the house. She denies feeling depressed or anxious, but her Folstein Mini-Mental State Exam score is 22/30, indicating moderate dementia. (For more on assessment, see "Tools for assessing patients with dementia—and their caregivers" on page 552.)

The physician offers a trial of risperidone 0.25 mg at bedtime to assist with sleep and behavior.

Was this prescription a wise decision? What other questions should this physician have asked?

## Understanding the behavioral symptoms

Noncognitive symptoms of dementia, sometimes referred to as behavioral and psychological symptoms, are common, affecting almost 90% of patients with dementia,<sup>1-3</sup> which itself can be classified as early, intermediate, and late.

■ **In early dementia**, sociability is usually not affected, but patients may repeat questions, misplace items, use poor judgment, and begin to have difficulty with more complex daily tasks like finances and driving.

■ **In intermediate dementia**, basic activities of daily living become impaired and normal social and environmental cues may not register.

■ **In late dementia**, patients become entirely dependent on others; they may lose the ability to speak, walk, and eventually, eat. Long- and short-term memory is lost.

Behavioral symptoms most often occur when the condi-

TABLE 1

## The evidence for a nonpharmacologic approach to the behavioral and psychological symptoms of dementia

Therapy	Strength of recommendation
Massage <sup>28,29</sup>	A
Aromatherapy <sup>28,30,31</sup>	A
Caregiver interventions <sup>32,33</sup>	A
Exercise: stretching, indoor exercises, and walking <sup>34,35</sup>	B
Music therapy <sup>28,30,34</sup>	B
Nonphysical barriers <sup>36</sup>	B
Cognitive stimulation <sup>37</sup>	C
Reminiscence therapy <sup>38</sup>	C
Respite care <sup>39</sup>	C
Long-term care (dementia unit) <sup>40</sup>	C

**Strength of recommendation (SOR):**

- A** Good quality patient-orientated evidence
- B** Inconsistent or limited-quality patient-orientated evidence
- C** Consensus, usual practice, opinion, disease-orientated evidence, case series

tion enters the intermediate phase, but they may occur at any time during the course of the disease.<sup>4</sup> Behaviors may include refusal of care, yelling, aggressive behavior, agitation, restlessness, reversal of the normal sleep-wake cycle, wandering, hoarding, sexual disinhibition, culturally inappropriate behaviors, hallucinations, delusions, anxiety, depression, apathy, and psychosis.<sup>2,5</sup>

Behavioral disturbances often overwhelm families, and lack of treatment increases patient morbidity, may result in physical harm, and almost always precipitates institutionalization.<sup>2</sup> Dementia-related behavioral disturbances also increase the risk of caregiver burnout and depression.<sup>2</sup>

These symptoms are difficult to treat with medications or nonpharmacologic therapy and strong evidence for most therapies is lacking. Physicians have historically prescribed either typical or atypical antipsychotics in an attempt to control these behaviors. In fact, medication is often still considered first-line therapy.<sup>6,7</sup>

**CASE ►** Ms. M's daughter calls the clinic 2 weeks after the initial visit to tell the physician that her mother has been sleeping much better, but had a fall and was admitted to the hospital for a hip fracture. That's not surprising; typical and atypical antipsychotics increase the risk of falls in the elderly.<sup>8</sup>

### The risks associated with the use of antipsychotics

In 2005, the US Food and Drug Administration (FDA) issued a black box warning for atypical antipsychotics because they were found to increase mortality in the elderly. The increased mortality is due to cardiac events or infection.<sup>9,10</sup> In 2008, the FDA warning was added to typical antipsychotics, as well.<sup>11,12</sup> Both typical and atypical antipsychotics have been found to increase the risk of falls and strokes in the elderly,<sup>8,13</sup> and their efficacy in treating the behavioral and psychological symptoms of dementia has recently been questioned.<sup>13-16</sup>

Trazodone and medications approved for the specific treatment of cognitive decline, such as donepezil or memantine, are also prescribed for behavioral disturbances, but evidence to support their efficacy is limited.<sup>14,17-20</sup> More recently, a meta-analysis of selective serotonin reuptake inhibitors (SSRIs) suggests that they may be effective for treating agitation associated with dementia.<sup>21</sup> However, SSRIs may also contribute to falls and to hyponatremia in the elderly.<sup>22,23</sup>

### Pharmacologic Tx is not your only option

Considering the questionable safety and efficacy of pharmacologic treatment, physicians should consider nondrug therapies first, or at least concurrently with medication.<sup>2,15,16,24</sup>

But before you get started, be sure to look for and treat medical conditions that cause or contribute to behavioral disturbances, including infection, pain, and adverse effects of medication.<sup>6,7,25</sup> Similarly, it is essential that unmet needs, such as hunger, thirst, or desire for attention or socialization, be addressed.<sup>6,7,26</sup> Also, discuss disturbing environmental factors, including loud noises, poorly

TABLE 2

## An action plan for treating the behavioral and psychological symptoms of dementia

Screen demented patients yearly for behavioral and psychological symptoms. <sup>2,41</sup>
Identify and treat contributing medical causes. <sup>6,7,25</sup>
Document and target specific symptoms for treatment. <sup>2,24,41</sup>
Set reasonable goal of reduction—rather than elimination—of behaviors. <sup>6,25</sup>
Attempt nonpharmacologic measures first. <sup>2,15,16,24</sup>
Determine if there are unmet needs. <sup>6,7,26</sup>
Examine environmental triggers. <sup>5-7</sup>
Encourage caregivers to attempt calm redirection and distraction. <sup>6,25</sup>
Advise caregivers to create a safe environment. <sup>25,46</sup>
Educate caregivers. <sup>6,25,32</sup>
Screen caregivers for burnout. <sup>24,41</sup>
Enlist social support systems and available respite care. <sup>6,44,45</sup>

lit quarters, and strong smells, with patients and their caregivers.<sup>5-7</sup> In complex situations, you may need to seek assistance from a geriatrician, neurologist, geropsychiatrist, or psychologist, although their availability may be limited.<sup>6</sup>

**CASE ►** Ms. M becomes markedly delirious while in the hospital after hip surgery, and a geriatrics consultation is requested. This is not surprising, given that underlying dementia increases a patient's risk of delirium in the hospital.<sup>27</sup> The geriatrician recommends several measures to reduce the likelihood of delirium—providing good pain control, minimizing night time wake-ups, minimizing Foley catheter use, Hep-locking the IV to encourage mobility, and having staff reorient her frequently by referring to a large print clock and calendar on the wall.

### Specific interventions

Most specific nonpharmacologic therapies have not been robustly studied in randomized controlled trials. But a series of smaller studies have been evaluated in systematic reviews. The level of evidence for each intervention is summarized in **TABLE 1**.<sup>28-40</sup>

As you review the options that follow, keep 2 things in mind: (1) It is important to

set realistic expectations when considering these approaches (as well as pharmacologic ones). Reducing the frequency or severity of problematic behaviors may be more reasonable than their total elimination.<sup>6,25</sup> (2) Consider targeting specific symptoms when treating behavioral disturbances.<sup>2,24,41</sup> Such targeting allows physicians and families to better evaluate the effectiveness of interventions because it helps to focus the discussion of the patient's progress at follow-up visits.

■ **Massage/touch therapy.** A 2006 Cochrane review concluded that improvement in nutritional intake and hand massage, when combined with positive encouragement during a meal, may produce a short-term positive effect on agitation.<sup>29</sup> Similarly, a meta-analysis of randomized controlled and randomized crossover studies found a statistically significant improvement in agitation with hand massage, although this finding was based on the same single study referenced in the 2006 review.<sup>30</sup> Opinions differ among 5 high-quality guidelines included in the systematic review by Azermai et al regarding the value of massage, with 2 of the 5 practice guidelines recommending its use.<sup>28</sup>

■ **Aromatherapy.** Several trials suggest that aroma therapy may reduce agitated be-



**Behavioral symptoms most often occur when dementia enters the intermediate phase, but they may occur at any time during the course of the disease.**

## Tools for assessing patients with dementia—and their caregivers

Numerous guidelines recommend that patients with dementia be screened at least annually for psychological and behavioral symptoms. Because patients with dementia are not reliable historians, a caregiver or someone in close contact must always verify his or her history.

Several screening tools are available to document these symptoms, including the Kingston Standardized Behavioral Assessment, the Behavioral Pathology in Alzheimer's Disease Scale, and the Neuropsychiatric Inventory. If time precludes your ability to make use of an instrument like one of these, always ask caregivers whether they have noticed any behavioral problems. Doing so will enable early intervention.

**Don't forget the caregivers.** Unfortunately, caregivers are at high risk for depression and burnout, so you will want to assess their distress and need for support at regular intervals. Two options include the Modified Caregiver Strain Index (13 items) and the Kingston Caregiver Stress Scale (10 items).

**Sources:** Segal-Gidan F, et al. *Alzheimers Dement*. 2011.<sup>24</sup>  
 Azermai M, et al. *Ageing Res Rev*. 2012.<sup>28</sup>  
 Waldemar G, et al. *Eur J Neurol*. 2007.<sup>41</sup>

haviors. Lemon balm and lavender oils have been the most commonly studied agents. Two systematic reviews cite the same 2002 randomized controlled trial, which found a reduction in behavioral problems in people who received arm massage with lemon balm compared with those who received arm massage with an odorless cream.<sup>30,31</sup> A systematic review by Holt et al also cites a study that found lavender oil placed in a sachet on each side of the pillow for at least one hour during sleep seemed to reduce problem behaviors.<sup>31</sup> Several evidence-based guidelines have concluded that aromatherapy may be helpful, and 2 of the 5 practice guidelines reviewed by Azermai et al recommend it.<sup>28</sup>

■ **Exercise** has been shown to benefit patients of all ages, even those with terminal diseases.<sup>42</sup> Some studies have indicated a positive effect of physical activities on behaviors ranging from wandering to aggression and agitation. Activities have included group gentle stretches, indoor exercises, and a volunteer-led walking program that en-

couraged hand holding and singing.<sup>34</sup> However, a 2008 Cochrane review concluded that the effect of exercise on behavioral disturbances in dementia has not been adequately studied.<sup>35</sup>

■ **Music therapy.** Numerous types of music therapy have been studied, including listening to music picked out by a patient's family based on known patient preference, classical music, pleasant sounds such as ocean waves, and even stories and comforting prayer recorded by family members. While most of these smaller studies yielded positive results,<sup>34</sup> a 2003 Cochrane review concluded there is not enough evidence to recommend for or against music therapy.<sup>43</sup> A more recent meta-analysis suggests that music may be effective for agitation.<sup>30</sup> A systematic review of quality guidelines also indicates that most of these guidelines rate the evidence as moderate to high in favor of music and 3 of 5 practice guidelines recommend it.<sup>28</sup>

■ **Nonphysical barriers** have long been used as a creative nonrestraining method of preventing wandering. They include such tricks as camouflaging exits by painting them to look like bookcases, painting a black square in front of an elevator to make it look like a hole, and placing a thin Velcro strip across doorways. Although it would appear from a limited number of small studies and anecdotal evidence that nonphysical barriers work, a Cochrane review concluded that they have not been studied enough to perform a meta-analysis.<sup>36</sup>

■ **Cognitive stimulation** typically consists of activities such as reviewing current events, promoting sensory awareness, drawing, associating words, discussion of hobbies, and planning daily activities. This type of therapy has been shown to improve cognition in patients with dementia, as well as well-being and quality of life. It does not improve behavioral problems, per se.<sup>37</sup>

■ **Reminiscence therapy** is a popular modality that involves stimulating memories of the past by looking at personal photos and newspaper clippings and discussing the past. It is well received by patients and caregivers. It has been shown to improve mood in elderly patients without dementia, but studies of reminiscence therapy have been too

dissimilar to draw conclusions regarding its effect on behavioral disturbances in patients with dementia.<sup>38</sup>

Other therapies that are common in dementia care, such as respite care and specialized dementia units, have simply not been studied well enough to provide any conclusions as to their effectiveness.<sup>39,40</sup>

**CASE ►** When Ms. M is discharged from the hospital, her family enrolls her in an adult day care program, where Ms. M will be able to participate in social activities, exercise, and communal meals. Her daughter asks the family physician what other steps they can take in the home to make things easier on her mother. And as an aside, the daughter admits that while she is glad that she and her family can “be there” for her mother, there have been times when she has simply not felt up to the task.

### Help family members care for the patient—and themselves

A recent meta-analysis suggests that caregiver interventions have a positive effect on behavioral problems in patients with dementia.<sup>32</sup> Successful programs are tailored to the individual needs of the patient and caregiver and delivered over multiple sessions. Unfortunately, the aforementioned meta-analysis did not provide evidenced-based interventions for specific problems.<sup>32</sup> With this in mind, the following are some practical caregiver “do’s and don’ts” that are based on reviews and consensus guidelines.

**■ Don’t take it personally.** It is extremely important to help caregivers understand that the disturbing behaviors of patients with dementia lack intentionality and are part of the normal progression of the disorder.<sup>25</sup> Caregivers also need to appreciate that hallucinations are normal in these patients and do not require medications if they don’t disturb the patient or place the patient or anyone else at risk.

**■ Don’t try to reason with the patient; redirect him or her instead.** Clinicians should offer caregivers suggestions for reassuring, redirecting, or distracting agitated patients rather than trying to reason with

them. Encourage caregivers to develop and maintain routines and consistency.<sup>6,25</sup> Using a calm, low tone of voice, giving very simple instructions, and leaving and then reattempting care that is refused the first time may also be effective.<sup>5</sup> Some experts have suggested techniques such as giving positive rewards for desired behaviors and not rewarding negative behaviors.<sup>6,26</sup>

**■ Do create a safe environment.** Recommend that caregivers create a safe environment. Make sure that they lock up all guns. Also, encourage them to use locks, alarms, or ID bracelets when patients are prone to wandering.<sup>25</sup>

**■ Do consider a caregiver support program.** Caregivers can make a big difference in the lives of patients with dementia, but only if they have support, as well.

A recent meta-analysis concluded that active involvement of caregivers in making choices about treatments distinguishes effective from ineffective support programs, decreases the odds of institutionalization, and may lengthen time to institutionalization.<sup>33</sup> To ease caregiver strain and depression, encourage them to make use of resources such as nursing home respite care and community agencies that include the Alzheimer’s Association (<http://www.alz.org>).<sup>6,44,45</sup>

**CASE ►** Ms. M’s daughter joins a local support group for families of patients with dementia, where she learns redirection techniques to try when her mother refuses care. The exercise and daytime social stimulation that Ms. M receives through the adult day care program helps her to sleep at night. When Ms. M refuses to take a shower—a challenge the family had before her hospitalization—the daughter does not argue with her. Instead, she returns 10 to 20 minutes later and asks again, or tries a bedside sponge bath with a lavender soap that Ms. M seems to like.

Ms. M’s nighttime wandering is markedly reduced and the family no longer uses any antipsychotic medications. The family physician counsels them, however, about the progressive nature of the disease and encourages them to set up periodic follow-up visits, so that he can see how everyone—patient and caregivers alike—are doing.

► Help caregivers understand that the disturbing behaviors of patients with dementia lack intentionality and are part of the normal progression of the disorder.

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On a case-by-case basis, a trial of antipsychotics is often justified, despite the black box warning.

## Welcoming the reprieves, recognizing the realities

The behavioral and psychological symptoms of dementia are the most challenging aspect of dementia care. Unacceptable behaviors sometimes persist even when aggressively addressing modifiable factors and attempting behavioral interventions (TABLE 2).<sup>2,5-7,15,16,24-26,32,41,44-46</sup> Patients with behavioral disturbances frequently require a pharmacologic agent or transfer to a different care setting.

But clinicians need to use psychotropic medications with informed patient and/or caregiver consent.<sup>7</sup> On a case-by-case basis, a trial of antipsychotics is often justified, despite the black box warning. A family may choose

to try an antipsychotic despite the risk to help manage the patient at home in the hope of delaying or preventing institutionalization.

However, even with good home support, in conjunction with nonpharmacologic and/or pharmacologic therapies, most patients with dementia will eventually require institutionalization.<sup>47</sup> Because patients and families often rely on family physicians to guide them through these difficult challenges and decisions, you'll need to remain well versed on the available treatments for the psychological and behavioral symptoms of dementia, as well as the resources available in your community. **JFP**

### CORRESPONDENCE

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**OVERDOSAGE**

Although rare, deaths may occur from overdosage with AMRIX. Multiple drug ingestion (including alcohol) is common in deliberate cyclobenzaprine overdose. **As management of overdose is complex and changing, it is recommended that the physician contact a poison control center for current information on treatment.** Signs and symptoms of toxicity may develop rapidly after cyclobenzaprine overdose; therefore, hospital monitoring is required as soon as possible.

**DOSAGE AND ADMINISTRATION**

The recommended adult dose for most patients is one (1) AMRIX 15 mg capsule taken once daily. Some patients may require up to 30 mg/day, given as one (1) AMRIX 30 mg capsule taken once daily or as two (2) AMRIX 15 mg capsules taken once daily.

It is recommended that doses be taken at approximately the same time each day. Use of AMRIX for periods longer than two or three weeks is not recommended (see **INDICATIONS AND USAGE**).

*Dosage Considerations for Special Patient Populations:* AMRIX should not be used in the elderly or in patients with impaired hepatic function. (see **WARNINGS**)

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