

## Assessing and Managing Delirium in Older Adults with Dementia

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**WHY:** Delirium in a person with pre-existing dementia is a common problem that may have life-threatening complications, especially if unrecognized and untreated. Acute changes in mental status in older adults with dementia are often missed, mislabeled, or mistakenly attributed to the underlying dementia or “sundowning.”<sup>1</sup> Delirium occurs 4-5 times more often in a person with dementia. In persons with dementia, delirium can substantially worsen long-term outcomes, including prolonged hospitalization, further decline in cognitive and physical functioning, re-hospitalization, nursing home placement, and death.<sup>2-4,10</sup> Delirium in older adults with dementia may be a sign of preventable and treatable medical problems or serious underlying illnesses such as a myocardial infarction, urinary tract infection, pneumonia, pain, or dehydration. Common medications causing delirium include diphenhydramine, benzodiazepines, anti-depressants, sedative-hypnotics such as zolpidem, and anti-psychotics.<sup>5</sup> An unrecognized delirium may interfere with recovery and rehabilitation after a hospitalization.<sup>3</sup>

**BEST TOOLS:** Delirium is difficult to assess in older adults with dementia and in hospitalized older adults due to overlapping features of delirium and dementia and the uncertainty of the patient's baseline mental status. Most tools to assess delirium are less specific when assessing delirium in older adults with dementia. Use a standardized tool to measure delirium, if possible, such as the Confusion Assessment Method (CAM)<sup>6</sup> (See *Try This*® Confusion Assessment Method). The CAM focuses on the KEY FEATURES OF DELIRIUM: Acute onset and fluctuating course, inattention, disorganized thinking, and altered level of consciousness. The 3D-CAM is a recent tool that has high sensitivity and specificity in persons with dementia and can be paired with a brief screening tool like the ultra-brief 2-item screen (UB-2<sup>®</sup>), “Please tell me the day of the week” and “Please tell me the months of the year backwards starting with December.”<sup>9,11</sup> The UB-2<sup>®</sup> has 96% sensitivity to detect delirium in persons with dementia. The Delirium Superimposed on Dementia Algorithm recommends a process to assess for delirium for people with a pre-existing dementia. Poor attention is a key marker in delirium and delirium superimposed on dementia. Many of these tools can be integrated into the electronic medical record and can be accessed at <http://www.hospitalelderlifeprogram.org>.<sup>7</sup>

**TARGET POPULATION:** The Delirium Superimposed on Dementia Algorithm should be used with any older adult with dementia with an acute change in mental or physical functioning and/or behavior changes. The algorithm can be used in any setting: hospital, emergency room, home, assisted living, or nursing home.

**STRENGTHS AND LIMITATIONS:** The Delirium Superimposed on Dementia Algorithm recognizes that the patient's baseline mental status is a critical parameter for assessing and treating delirium. Thus, the nurse must review the medical record for indications of pre-existing dementia and check with the patient's family or caregiver. Ask the family or caregiver about the person's baseline mental and physical function status. The algorithm presents practical ways for bedside nurses to assess delirium and key features of poor attention and fluctuation. This algorithm is part of a comprehensive approach to persons with dementia that include attention to age-friendly concepts, the 4 M's: asking the older adult What Matters, Keeping them Mobile, assessing Medications, and addressing Mentation.<sup>8</sup> Prevention strategies (e.g., hydration, mobility) are an essential component of the algorithm.

The algorithm can be used with patients with dementia who present to the hospital without previous medical evaluation, and/or family members who cannot describe the patient's mental status pre-hospitalization. The algorithm helps address ageism, a significant barrier to detecting the presence of delirium, wherein clinicians attribute further cognitive loss or lethargy in a person with dementia as an inevitable fact of life for older adults (See *Try This*® Recognition of Dementia in Hospitalized Older Adults).

**FOLLOW-UP:** The algorithm includes assessment of mental status and physical functioning on a daily basis. Communication among interdisciplinary team members across health care settings is crucial to the detection and treatment of delirium in older adults, especially during times of acuity and transition.

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# Delirium Superimposed on Dementia Algorithm

## Assess for pre-hospital cognitive function:

- Review medical record for pre-existing dementia, memory problems, and/or functional difficulties.
- Ask the patient's family whether the patient has a diagnosis of dementia or signs and symptoms of possible dementia. Ask about mental status in past 6 months to one year.
- If patient is admitted from an assisted living or long term care facility, question the staff about the patient's baseline mental and functional status.
- Complete a tool, such as the Family Questionnaire, to help assess pre-hospital cognitive and functional abilities (See *Try This*:<sup>®</sup> Recognition of Dementia in Hospitalized Older Adults).



## Assess for and identify delirium promptly:

- Use a standardized instrument, such as the Confusion Assessment Method (CAM) or the 3D-CAM, to identify delirium quickly and at the bedside (<http://www.hospitalelderlifeprogram.org>).
- *Acute* onset (acute meaning minutes, hours, shifts, days--up to 2 weeks) or any *change* in cognition (inattention, memory loss, disorientation, hallucinations, delusions) or any change in function.
- Acute change in behaviors such as verbal and/or physical aggression, resistance to care, and wandering (See *Try This*:<sup>®</sup> Wandering in the Hospitalized Older Adult).
- Fluctuation of mental status (unusual or changing function).
- Inattention: Assess by asking to say Months of the Years Backwards, or Days of the Week backwards and by observing for problems focusing, staring off into space, or losing track of questions.
- Disorganized thinking: Assess by asking, "What would you do if your home or room were on fire?"
- Altered level of consciousness. Hyperactive or hypoalert. Remember lethargy, falling asleep, staring off into space, and decreased motor activity is NOT NORMAL in older adults with dementia.

(See *Try This*:<sup>®</sup> Confusion Assessment Method)



### Assess for physiologic and care process risk factors for delirium:

- Medication(s) (See AGS 2018 Beers Criteria; *Try This*:<sup>®</sup> AGS Beers Criteria)
- Fecal impaction
- Urinary retention
- Infection (urine, lungs, skin)
- Hypoxia
- Dehydration
- Hypo/hyperglycemia
- Electrolyte imbalance
- Pain (See *Try This*:<sup>®</sup> Assessing Pain)
- Immobility, physical restraints
- Sensory impairment or sensory overload
- Interrupted sleep

### Prevent injury:

- Room near nurse's station (monitor for excessive noise and stimulation)
- Motion sensor alarm (monitor for agitation from alarm sound)
- Assess fall risk (See *Try This*:<sup>®</sup> Fall Risk Assessment)
- Remove/camouflage tubes when possible
- Use of increased surveillance & rounding

### Additional preventative strategies:

- Environmental stimuli as appropriate
- Mobilize
- Non-drug alternatives and sleep protocol
- Provide sensory aides
- Cognitive stimulation
- Hydration & nutrition
- Personalize activities/room (all about me poster)
- Encourage family presence



## Follow-up assessment and care

- Educate the family about the nature of delirium, indicating this is not a "worsening of dementia" but an acute or emergent health issue. Do admission and discharge teaching.
- Continue to assess cognition using standardized tool and observing behaviors.
- Continue with preventive strategies at hospital and in the home.