TRY THIS

Dementia Series

Best Practices in Nursing Care to Older Adults

Assessing and Managing Delirium in Persons with Dementia

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WHY: Delirium in a person with pre-existing dementia is common and may have life-threatening complications, especially if unrecognized and untreated. Acute changes in mental status, attention, alertness, function, sleep-wake pattern, or behavior are often missed, mislabeled, or mistakenly attributed to the underlying dementia or "sundowning."[1-3] Dementia is one of the strongest risk factors for delirium. Delirium occurs approximately 4 to 5 times more often in persons with dementia, and delirium superimposed on dementia has been reported in more than 50% of hospitalized older adults in some settings, with risk increasing as dementia severity progresses.[3-5] In persons with dementia, delirium can worsen outcomes, including prolonged hospitalization, further cognitive and physical decline, rehospitalization, nursing home placement, persistent delirium, and death. [1,4] Delirium in older adults with dementia may be a sign of preventable and treatable medical problems or serious underlying illnesses such as myocardial infarction, urinary tract infection, pneumonia, pain, dehydration, urinary retention, constipation, hypoxia, metabolic disturbance, or medication toxicity.[1,6,7] Common medications causing delirium include diphenhydramine and other anticholinergics, benzodiazepines, sedative-hypnotics such as zolpidem, antipsychotics, opioids, and other psychoactive medications, especially when newly started, dose-adjusted, or used in combination.[6,7] Because delirium may begin at home, in assisted living, or in long-term care before hospitalization, family care partners, home health staff, certified nursing assistants, and other direct care staff are often the first to notice that the person is "not themselves." Their observations about baseline cognition, function, behavior, sleep, communication, and symptom fluctuation should be treated as essential clinical information for early recognition, evaluation, treatment, and care planning.[8-10]

BEST TOOL: 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 delirium tools are less specific when used with older adults who have moderate to severe dementia; therefore, standardized assessment should be paired with collateral information from family care partners or others who know the person's usual cognition, function, attention, communication, sleep-wake pattern, mobility, and behavior.[1,9,10] The Confusion Assessment Method (CAM) (See *Try This:*® Confusion Assessment Method) remains a widely used tool and focuses on the key features of delirium: acute onset and fluctuating course, inattention, disorganized thinking, and altered level of consciousness.[11] The 3D-CAM is a brief structured tool for CAM-defined delirium that has high sensitivity and specificity in persons with dementia[12,13] and can be paired with a brief screening tool like the ultra-brief 2-item screen (UB-2©), "Please tell me the day of the week" and "Please tell me the months of the year backwards starting with December".[14] The UB-2© has 96% sensitivity to detect delirium in persons with dementia, but lower specificity. The Ultra-Brief Confusion Assessment Method (UB-CAM) is a recent tool that builds on this approach as an accurate rapid two-step protocol: if both UB-2 items are answered correctly, delirium is unlikely; if either item is missed, the more items are completed to assess CAM diagnostic features. Recent studies support the UB-CAM as an efficient approach for busy acute care workflows, including app-based use with prevention and treatment screens. The UB-CAM has been integrated into EPIC and other electronic health records (EHRs). Positive and challenging cases still require clinical judgment and evaluation for reversible causes.[15-17] 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. The clinical team should ask directly whether the person is different from baseline and document family or staff observations about fluctuation, new inattention, sleepiness, reduced interaction, agitation, hallucinations, resistance to care, reduced intake, or loss of usual function.[8,9,18] Many of these tools and processes can be integrated into EHRs using the 4Ms of Age-Friendly Care: What Matters, Medication, Mentation, and Mobility[3,19] and can be accessed at AGS CoCare®: Hospital Elder Life Program (HELP). The UB-CAM has a free website with training tools and tips https://www.ub-cam-delirium-screening.org/

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 4M's: asking the older adult What Matters, Keeping them Mobile, assessing Medications and addressing Mentation.[3,19] 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

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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.

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:® Recognition of Dementia in Hospitalized Older Adults).

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Assess for and identify delirium promptly:

- Use a standardized instrument, such as the Confusion Assessment Method (CAM), 3D-CAM, or UB-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:® 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 hypo alert. Remember lethargy, falling asleep, staring off into space, and decreased motor activity is NOT NORMAL in older adults with dementia.
- (See Try This:® Confusion Assessment Method)

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Assess for physiologic and care process risk factors for delirium:

- Medication(s) (See AGS 2023 Beers Criteria; Try This:® AGS Beers Criteria)
- Fecal impaction
- Urinary retention
- Infection (urine, lungs, skin)
- Hypoxia
- Dehydration
- Hypo/hyperglycemia
- Electrolyte imbalance
- Pain (See Try This:® 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:® 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

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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.

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