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Controlling Pain and Discomfort, Part 2: Assessment in Non-verbal Older Adults

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Introduction

Because pain is a subjective experience, pain assessment relies heavily on verbal self-report. However, self-report may be difficult or impossible in nonverbal critically ill older adults who are intubated, sedated, or unconscious; or older adults with communication and cognitive impairments, such as aphasia/dysphasia, language barriers, dementia, delirium, intellectual disabilities, traumatic brain injury, and/or deaf or severe hearing impairment. As a result, they are unable to verbally convey and describe pain, placing them at greater risk for non- and under-assessment. To prevent under-assessment in this vulnerable population, a multi-component and interdisciplinary approach to determine pain is needed. It may be especially important to involve a palliative care nurse whose expertise in pain (symptom) management can facilitate effective assessment in older adults whose communication is more compromised due to advanced disease or impending death.

Dementia is one of the most common forms of cognitive impairment in older adults, and age is a major risk factor for both pain and dementia. Older adults have a lower pain threshold (i.e., minimum intensity of a stimulus that is perceived as painful) which may progressively decrease over time in older adults with dementia (Figure 1), while their pain tolerance (i.e., maximum intensity of a painful stimulus that a subject is willing/able to tolerate) increases because they are unable to cognitively recognize and quickly interpret pain, thus increasing vulnerability to consequences of pain. However, their pain often goes unrecognized because they may be unable to verbally communicate and self-report pain. Likewise, nurses and nursing assistants consistently report that cognitive impairment is a major barrier to pain assessment, and unrelieved pain exposes them to unnecessary suffering and exacerbation of cognitive impairment, as evidenced by decreasing memory and ability to communicate and process commands, decrease in scores on cognitive screening tests, and increased

agitation.¹⁻² To help nurses more confidently identify pain in non-verbal adults, this second of a three-article series describes an evidence-based approach to pain assessment.

Pain Assessment by Observation in Non-verbal Older Adults

The Hierarchy of Pain Assessment can be used to identify and assess pain in individuals unable to verbally communicate pain.³⁻⁶ This hierarchy can be implemented in acute care and long-term care and adapted for primary, ambulatory, and homecare where interaction with older adult may be limited by time.

Step 1: Determine older adult's reliability and verbal ability, and attempt self-report

Recommended—Communication and cognitive impairments may limit an older adult's ability to reliably self-report, but not all persons with communication or cognitive impairment are unable to self-report, which is why self-report should be attempted. As noted in one study, older adults may not be able to articulate that they are in pain per se or the location of pain, but may ask for "help".² In addition, older adults who are intubated but not heavily sedated may be able to squeeze hand, raise a finger, blink eyes, or nod head if they are having pain (or hurting) or discomfort. Older adults verbally limited by aphasia/dysphasia may be able to use a self-report pain scale by pointing to the intensity level and location(s). Also, older adults who may be deaf may require a sign-language interpreter.

To determine if an older adult can reliably self-report, 1) observe coherency in communication and thought patterns, 2) assess mental status using a Mini-Cog or Montreal Cognitive Assessment (MoCA) in acute care or Brief Interview for Mental Status (BIMS) for long-term care residents, 3) note if there is a diagnosis of cognitive impairment, and 4) assess understanding of pain scales by asking patients to show where no pain or severe pain is represented on a pain scale. These are cues that may indicate that the older adult's report of pain may be unreliable. Accommodating sensory impairments is important as this could impact [reli]ability. Greater detail of this step is provided in Part 1 of this series. When older adult cannot report pain reliably, proceed with steps 2–6.

Not Recommended—Nurses should refrain from relying on a cognitive impairment diagnosis or communication impairments as reasons for an older adult's inability or unwillingness to self-report. Even those with moderate dementia can sometimes report pain.^{3,7}

Step 2: Identify potential causes or sources of pain (i.e., pathologic, procedural, injury, pharmacological) common in older adults

Recommended—There are numerous causes of pain in older adults. Close observation during care activities often reveals subtle cues of pain. These cues should be followed by a focused nursing assessment and review of patient medical records to help determine cause of pain. Review patient's medical diagnoses for chronic diseases associated with pain symptoms or history of chronic pain, acute conditions associated with pain, recent injury, newly added medical devices or taut restraints, and procedures such as catheter insertion.⁶ Common causes of pain in older adults include osteoarthritis, pressure ulcers and wound

care, infections, diabetic neuropathy, and irritation of previous injuries. For additional causes of pain see articles by Reid⁸ and Booker and colleagues.⁶

Not Recommended—After determination of potential pain sources, interventions should not be withheld until behavioral indicators of pain manifest, nor should interventions be delayed until source of pain is diagnosed. Delayed intervention can result in additional complications.

Step 3: Observe for indicators or behaviors suggestive of pain (Table 1)

Recommended—Consider pain if there is a subtle or significant change in the resident's condition or behavior. Older adults with dementia experiencing pain may exhibit care-resistant behaviors; therefore, nurses should assess and treat pain before personal care is given. There can be an overlap in pain-suggestive behaviors and neurocognitive behaviors, making the distinction between pain and dementia or delirium symptoms more complicated. Therefore, nurses and providers must consistently use a valid, reliable, and practical pain behavior tool that is appropriate for the patient.³ There are over 15 pain behavior tools, but a thorough review of reliability, validity, and utility by an expert panel recommend the Pain Assessment in Advanced Dementia Scale (PAINAD) and Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC or PACSLAC-II) specifically for nursing home residents.⁹ In addition to reliability and validity, the choice of pain behavior instrument should consider patient race, culture, language, setting of care, and nurse's knowledge of the tool. Observational discomfort-behavior tools, such as the, Discomfort in Dementia of the Alzheimer's Type (DS-DAT), can be used with non-verbal patients who have dementia. Pain should be assessed at rest, during movement, and passive and active care activities. Use of pain observation tools improves recognition of pain and its intensity.¹⁰

For critically-ill patients unable to self-report the Critical-care Pain Observation Tool (CPOT) and Behavioral Pain Scale (BPS) are recommended.¹¹ Consulting with family and professional caregivers who know the person's normative behavior can help determine if pain is triggering change in behaviors.

Not Recommended—Vital signs (VS) are often used to determine presence of pain, but, alone, these are not the best indicators considering that VS outside defined limits may be due to injury/disease process or medications. Elevated VS do not indicate presence of pain and non-elevated VS do not suggest absence of pain. However, changes in VS should alert the need for further medical attention and serve as cue for pain assessment.⁵ One study found no significant correlation between self-report of pain intensity and heart rate and blood pressure.¹² Also, sedation does not eliminate pain, and snoring neither indicates absence of pain or that the patient is sleeping well with or without pain.

Step 4: Discuss with all relevant informants changes in the patient's behavior, mood, and daily functional patterns that may indicate pain

Recommended—Family and professional caregivers, and even housekeepers, who have had a long-term relationship with the older adult, can share information about the patient's communication patterns and behaviors that indicate pain and discomfort. For example,

during, clinic visits with primary care provider or homecare visits with the nurse, the family is especially valuable in providing additional details and corroboration of pain. These individuals can also share information about past behaviors and disposition when the older adult was in pain.⁵ If depression is suspected, the Cornell Scale for Depression in Dementia (CSDD) or Patient Health Questionnaire (PHQ-9 or PHQ-2) can be administered.

Not Recommended—Using family or caregivers perceptions of pain in older patients should not be used as sole evidence, as research shows that family members/caregivers can underestimate or overestimate pain.¹³ Proxy report from family and caregivers should be used along with nursing judgment and other evidence identified in any of the steps 1–5.

Step 5: If pain is suspected, initiate an analgesic trial after comfort and non-pharmacological measures have been tried

Recommended—While pain-related behaviors trigger nurses to intervene in different ways, interventions rarely included an analgesic trial,¹⁴ despite recommendations and evidence demonstrating that analgesic trials are effective in reducing pain behaviors.^{15,16} Initiate a stepwise analgesic trial paying close attention to patient response and proceeding with each subsequent step if behaviors do not improve.^{4,16} The duration of the trial depends upon individual patient characteristics, times of suspected pain, and type of medication trialed; thus, the trial can range from one hour to one week. Example empiric analgesic trials are as follow:

For suspected nociceptive pain,

- **Step 5a:** Start with a non-opioid, such as oral acetaminophen 650–1000 g every 8 hours with a maximum daily dose of 3,000 g. When oral acetaminophen cannot be given, consider intravenous acetaminophen (Ofirmev®). Older adults with severe liver impairment should not be given acetaminophen. A topical analgesic can be used with acetaminophen.
- **Step 5b:** If acetaminophen proves ineffective alone, add a short acting, low dose opioid such as oral morphine sulfate 5 mg every 12 hours to a maximum dose of 10 mg every 12 hours. Again, a topical analgesic can be used.
- **Step 5c:** If the short-acting opioid is not adequate, try adding a longer-acting opioid, such as Buprenorphine transdermal patch 5 mcg/hour to a maximum 10 mcg/hour for a seven-day period. The acetaminophen and/or short-acting opioid can be used routinely or for breakthrough pain.

For suspected neuropathic or mixed pain,

- **Step 5a:** Give acetaminophen (as dosed above) with pregabalin 25 mg, maximum of 300 mg/day for seven days.
- **Step 5b:** If acetaminophen is not effective with the pregabalin, a short- or long-acting opioid can be added.

Behaviors and function often improve with acetaminophen, but if behaviors do not improve after completing all steps, a pain specialist consultation may be needed and other reasons for behaviors should be explored.⁴ If behaviors decrease and function improve during the trial (i.e., frequency, duration, intensity), assume pain present (APP), document in care plan, and develop a multi-modal plan of care (i.e., Step 6).

Not Recommended—Analgesic placebo trials to elicit a therapeutic effect should not be implemented.¹⁷ Analgesic placebos are sham or “fake” medications in the form of sugar pills, normal saline injections, or minute doses of drugs.¹⁷ Older adults deserve real treatment for real pain.

Dilution of opioid medications is also discouraged unless there is a physician’s order or clear instructions from the pharmaceutical manufacturer or pharmacy. A 2014 survey by the Institute for Safe Medication Practices found that nurses unnecessarily dilute many medications, including those used for pain management.¹⁸

Step 6: Develop a multi-modal pain treatment plan with measurable comfort-function-mood-behavior goals

Recommended—If analgesic trial confirms pain, providers and family/caregivers should collaboratively construct a multi-modal pain treatment plan guided by measurable goals for sustained or improved comfort, function, mood, and behavior. Continue to assess and document pain using same pain-behavior observation tool. Multi-modal treatment should (1) include an appropriate analgesic plan of care (APOC) based on benefits/risks and pain type and severity, and (2) incorporate complementary, alternative, and integrative interventions to maximize analgesic effect. More on multi-modal treatment can be read in Part 3 of this series.

Not Recommended—The analgesic found to be effective in improving behaviors in the Step 5, may not be most appropriate to continue on a routine basis. The purpose of the analgesic trial is to help identify the presence of pain.

Summary

When pain is not detected and treated adequately, executive function decreases. This further limits older adults’ with cognitive and communication impairments ability to report pain. Nurses are encouraged to use multiple methods to determine and treat pain in older adults who are unable to verbally communicate or articulate their pain.

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Table 1

Behaviors Suggestive of Acute or Persistent Pain in Non-verbal Older Adults

Category	Behavior*
Facial Expressions	Rapid blinking, frightened expression, distorted expressions, brow lowering, clenched teeth, orbit tightening, upper-lip raising, nose wrinkling, eye narrowing or closure
Verbalizations & Vocalization	Calling out for help, screaming, swearing, crying, moaning, sighing, praying, swearing
Body Movements	Altered gait/limping, rubbing a body area, tense tone/rigidity, decreased movement, guarding, pacing, rocking, fidgeting, repetitive movements, guarding
Interpersonal Interactions	Resisting personal care, aggression, withdrawal/isolation
Change in Mood and Mental State	Delirium, depressive symptoms, agitation, anxiety, irritability, crying, impaired executive function, declining cognition, exacerbation of cognition impairment
Change in Activity Patterns	Wandering, sleep disturbances, disengagement with social activities, wanting to stay in bed, change in normal routine
Change in Function	Decreased ability to engage in activities of daily living, rehabilitation, falls
Autonomic Signs	Pallor, altered breathing, change in VS

* Intensity of behaviors or actions vary with intensity of pain.