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general assessment series

Best Practices in Nursing
Care to Older Adults

From The Hartford Institute for Geriatric Nursing, New York University, College of Nursing

Issue Number 7, Revised 2007

Series Editor: Marie Boltz, PhD, GNP-BC
Series Co-Editor: Sherry A. Greenberg, MSN, GNP-BC
New York University College of Nursing

Pain Assessment for Older Adults

By: Ellen Flaherty, PhD, APRN, BC, Village Care of New York

WHY: Studies on pain in older adults (persons 65 years of age and older) have demonstrated that 25%-50% of community dwelling older people have persistent pain. Additionally, 45-80% of nursing home residents report pain that is often left untreated. Pain is strongly associated with depression and can result in decreased socialization, impaired ambulation and increased healthcare utilization and costs. Older adults tend to minimize or not report their pain or are unable to due to sensory and or cognitive impairments. A significant barrier in treating pain in older adults is inadequate pain assessment. Therefore, a proactive, consistent approach must be taken to screen and assess older adults for persistent pain.

BEST TOOL: Patients' self report is the most reliable measure of pain intensity as there are no biological markers of pain. Simply worded questions and tools, which can be easily understood, are the most effective, as older adults frequently encounter numerous factors, including sensory deficits and cognitive impairments. The most widely used pain intensity scales used with older adults are the Numeric Rating Scale (NRS), the Verbal Descriptor Scale (VDS) and the Faces Pain Scale-Revised (FPS-R). The most popular tool, the NRS, asks a patient to rate their pain by assigning a numerical value with zero indicating no pain and 10 representing the worst pain imaginable. The VDS asks the patient to describe their pain from "no pain" to "pain as bad as it could be." The FPS-R asks patients to describe their pain according to a facial expression that corresponds with their pain.

TARGET POPULATION: All three scales are used with both community and older adults in acute and long term care settings. While there are specific tools designed to capture pain in non-verbal cognitively impaired older adults, studies have shown that the Faces, Numeric Rating and Verbal Descriptor scales may be used effectively with cognitively impaired older adults. The choice of a scale may depend on the presence of a particular language or sensory impairment. The same scale should be used consistently with each individual patient.

VALIDITY AND RELIABILITY: Among these three scales, several studies have demonstrated concurrent validity between 0.56 and 0.90 with the lowest correlations found between the FPS-R and the other scales, suggesting that the FPS-R may be measuring a broader construct incorporating pain. Test-retest reliability was demonstrated with coefficients ranging from 0.75-0.89.

STRENGTHS AND LIMITATIONS: Overall, the NRS was the preferred scale with cognitively intact older adults and the FPS-R was the preferred scale with cognitively impaired patients. In addition, African-Americans and Hispanics preferred the FPS-R. The FPS-R was also the scale that was preferred with mildly, moderately and severely impaired older adults. These brief assessment tools should not replace performing a comprehensive health history and physical exam, which may lead to the determination of etiologies of pain.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerRN.org.

American Geriatrics Society Panel on Persistent Pain in Older Persons. (2002). Clinical practice guidelines: The management of persistent pain in older persons. *JAGS*, 50, S205-S224. Available at http://www.americangeriatrics.org/products/positionpapers/persistent_pain_guide.shtml, from the American Geriatrics Society Web site, www.americangeriatrics.org.

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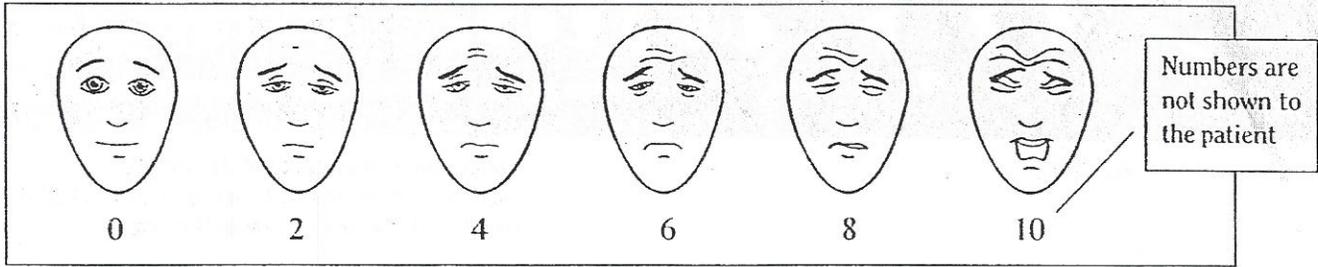
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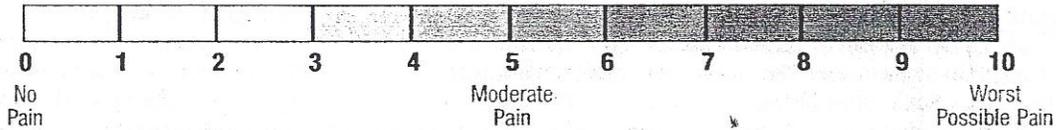
Faces Pain Scale – Revised



From PAIN, 2001, 93, 173-183 "The Faces Pain Scale – Revised. Toward a Common Metric in Pediatric Pain Measurement," by C.L. Hicks, C.L. von Baeyer, P.A. Spafford, I. van Korlaar, & B. Goodenough,. Reprinted with permission of the International Association for the Study of Pain®.

Note: This is a smaller sample of the actual scale. For further instructions on the correct use of the scale in order to get valid responses, please go to www.painsourcebook.ca

Numeric Rating Scale



Please rate your pain from 0 to 10 with 0 indicating no pain and 10 representing the worst possible pain. _____

Adapted from Jacox, A., Carr, D.B., Payne, R., et al. (March 1994). Management of Cancer Pain. Clinical Practice Guideline No. 9. AHCPR Publication No. 94-0592. Rockville, MD: Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.

Verbal Descriptor Scale

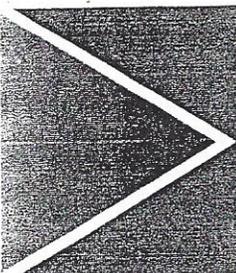
Please describe your pain from "no pain" to "mild", "moderate", "severe", or "pain as bad as it could be." _____

Adapted from Jacox, A., Carr, D.B., Payne, R., et al. (March 1994). Management of Cancer Pain. Clinical Practice Guideline No. 9. AHCPR Publication No. 94-0592. Rockville, MD: Agency for Health Care Policy and Research, U.S. Department of Health and Human Services.



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Best Practices in Nursing
Care to Older Adults

From The Hartford Institute for Geriatric Nursing, New York University College of Nursing
and The American Society for Pain Management Nursing

Issue Number SP1, 2010

Series Editor: Marie Boltz, PhD, GNP-BC
Series Co-Editor: Sherry A. Greenberg, MSN, GNP-BC
New York University College of Nursing

Assessment of Nociceptive versus Neuropathic Pain in Older Adults

By: Paul Arnstein, PhD, RN, ACNS-BC, FNP-C

Clinical Nurse Specialist for Pain Relief, Massachusetts General Hospital
Past President, American Society for Pain Management Nursing

WHY: Many older adults have severe or ongoing pain. Distinguishing whether the pain is nociceptive or neuropathic has important implications for diagnostic, lifestyle and treatment decisions. Nociceptive pain is caused by an active illness, injury and/or inflammatory process associated with actual or potential tissue damage. Recognition of nociceptive pain can help identify an acute condition (e.g. angina, temporal arteritis, thrombosis, torn ligament) demanding prompt treatment, or a chronic condition (e.g. arthritis, osteoporosis) guiding treatment to halt tissue damage. Neuropathic pain results from a lesion or a malfunction within the nervous system. High intensity neuropathic pain interferes with daily living and has been linked to a loss of muscle, bone and brain mass. Older adults are at greater risk for developing neuropathic pain because of fewer inhibitory nerves, lower endorphin levels and a slowed capacity to reverse processes that sensitize nerves. For example, postherpetic neuralgia develops in half of those over age 70, compared to 3% under 60 years old.

BEST TOOLS: Several tools are available to distinguish nociceptive from neuropathic pain. Tools that combine self-report and physical examination are more precise than self-report alone. Validation of the following three tools has included some, but not large numbers, of older adults. The Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) was the first of the tools to be developed. The Douleur Neuropathique en 4 questions (DN4) was developed in French and translated into English (called the Neuropathic Pain Diagnostic Questionnaire or DN4). The DN4 is easiest to score and, hence, possibly the best tool to use. The Neuropathic Pain Questionnaire (NPQ) asks about pain, but does not include physical examination measures and is, therefore, not as highly recommended.

TARGET POPULATION: Older adults with pain from an uncertain source or with persistent pain despite treatment attempts.

VALIDITY AND RELIABILITY: The three tools described have demonstrated good validity (face, discriminant, content, construct) and reliability (internal consistency, test-retest, interrater). The LANSS Pain Scale has seven items (5 symptoms and 2 physical exam findings) to determine if pain is nociceptive or neuropathic. After its original validation with 100 patients, it has been tested and used on thousands of people, including a validated self-completed epidemiological tool believed accurate in 75-80% of cases (sensitivity 85%, specificity 80%). The DN4 was validated in French and translated into English using appropriate procedures. It is comprised of 10 items (7 symptoms and 3 clinical examinations) and is easy to score with each item equally weighted with a score of 4 or more classifying the pain as neuropathic. The DN4 has a higher sensitivity (83%) and specificity (90%) than the other tools described. The NPQ rates its 12 items (10 sensations and 2 emotions) on a scale of 0-100. It asks about the degree to which pain is unpleasant or overwhelming, questions not addressed by the other tools described. Although it correctly classifies patients with neuropathic pain 70% of the time (sensitivity 66%, specificity 74%) a subset of 3 items (numbness, tingling and allodynia) accounts for most of its accuracy. Because this tool is long, with complex math involved, it is not shown here. However, knowing the importance of numb, tingling and allodynia findings on assessment make it worthy of mention.

STRENGTHS AND LIMITATIONS: Although the three tools described distinguish nociceptive from neuropathic pain, the LANSS and DN4 are preferred because of their brevity and the integration of self-reported symptoms and physical examination.

FOLLOW-UP:

These tools are generally used once and are repeated periodically (e.g. annually) to screen for, and help differentiate types of pain. Nurses should discuss their findings with interdisciplinary team members to help guide therapy that is more likely to respond to the patient's specific type of pain. Distinguishing pain types by linking signs, symptoms and responses remains an active area of research. As underlying mechanisms of pain are better understood, targeted therapies are being developed to minimize treatment failures and expedite relief, especially for those with neuropathic pain.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGerRN.org.

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LANSS Pain Scale

Symptom / Sign	Score for "yes"
Does the pain feel like strange unpleasant sensations? (e.g. pricking, tingling, pins/needles)	5
Do painful areas look different? (e.g. mottled, more red/pink than usual)	5
Is the area abnormally sensitive to touch? (e.g. lightly stroked, tight clothes)	3
Do you have sudden unexplained bursts of pain? (e.g. electric shocks, 'jumping')	2
Does the skin temperature in the painful area feel abnormal? (e.g. hot, burning)	1
Exam: Does stroking the affected area of skin with cotton produce pain?	5
Exam: Does a pinprick (23 GA) at the affected area feel sharper or duller when compared to an area of normal skin?	3
0 - 12 = likely nociceptive, Score > 12 likely neuropathic	Total:

Adapted from: Bennett, M.I. (2001). The LANSS Pain Scale: The Leeds assessment of neuropathic symptoms and signs. *Pain*, 92(1-2), 147-157. Appendices A and B, pp. 156-157. Note: This is a smaller sample of the actual scale. For further instructions on the correct use of the scale please contact the International Association for the Study of Pain @: iaspdesk@iasp-pain.org.

DN4 Questionnaire

Symptom / Sign	No = 0 Yes = 1
Does the pain have the following characteristic? Burning?	
Does the pain have the following characteristic? Painful cold?	
Does the pain have the following characteristic? Electric shocks?	
Does the area of pain also have the following? Tingling?	
Does the area of pain also have the following? Pins & needles?	
Does the area of pain also have the following? Numbness?	
Does the area of pain also have the following? Itching?	
Exam: Decrease in touch sensation (soft brush)?	
Exam: Decrease in prick sensation (von Frey hair #13)?	
Exam: Does movement of a soft brush in the area cause or increase pain?	
0 - 3 = likely nociceptive pain ≥4 = likely neuropathic pain	Total:

Adapted from: Bouhassira, D., Attal, N., Alchaar, H., et al. (2005). Comparison of pain syndromes associated with nervous or somatic lesions and development of a new neuropathic pain diagnostic questionnaire (DN4). *Pain*, 114(1-2), 29-36. Appendix B, p. 36. Note: This is a smaller sample of the actual questionnaire. For further instructions on the correct use of the questionnaire please contact the International Association for the Study of Pain @: iaspdesk@iasp-pain.org.



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COMMON CHRONIC CONDITION CAUSING PAIN IN OLDER ADULTS

NOCEPTIVE PAIN

- Low back pain from facet joint arthritis and spondylosis
- Osteoarthritis
- Osteoporosis
- Previous bone fractures
- Rheumatoid arthritis
- Polymyalgia rheumatica
- Paget's disease
- Coronary artery disease

*Caused by fracture
illness - injury etc*

Surgey

NEUROPATHIC PAIN

- Central Poststroke
- Herpes Zoster
- Postherpetic neuralgia
- Trigeminal neuralgia
- Nutritional neuropathies
- Peripheral neuropathies

Other Mixed

- Myofascial pain

- Fibro myalgia

*Neuro System
Medication in System*

Multimodal approaches to pain management

By Paul Arnstein, PhD, RN-BC, ACNS-BC, FNP-C

IN A REVOLUTIONARY statement, Margo McCaffery defined pain as “whatever the experiencing person says it is, existing whenever the experiencing person says it does.”¹ At the time, 1968, pain was viewed as what the healthcare provider said it was. Now McCaffery’s definition is widely accepted and healthcare providers often depend on nurses’ judgment to meet the patient’s comfort needs.

Today, nurses perform most pain assessments, interventions, treatment refinement, and patient education. Part of that duty is to ensure safe, effective use of analgesics.

Nurses tailor pain-relieving options by delivering analgesia to maximize benefit while minimizing potential harm. Doses that only partially relieve pain are sometimes used to avoid uncontrollable adverse reactions while the best regimen is

found for the individual. Conflicts may arise among the treatment team, patient, and family if these groups have competing pain management goals; for example, if the family wants the patient to receive more pain medication than the treatment team thinks is safe.

The patient’s emotional, social, financial, and legal concerns can amplify pain. Nurses can help lessen this augmented pain by addressing

Using selected multimodal therapies²

Target area	Drugs	Nonpharmacologic therapies	Specialized therapies
Body	<ul style="list-style-type: none"> • Tissue: Cause directed treatment, anti-inflammatory drugs, local anesthetics such as capsaicin and topical creams • Nervous system: Acetaminophen, opioids, antidepressants, antiepileptics, N-methyl-D-aspartate (NMDA) receptor antagonists • Whole body: Nutritional and vitamin supplements 	<ul style="list-style-type: none"> • Tissue: Topical heat or cold, simple massage or rubbing, compression, positioning aids, removing irritants, and improving local circulation • Nervous system: Reducing dermatomal stimuli, using contralateral stimulation, and using proximal or distal stimulation • Whole body: Adequate diet and nutrition, adequate sleep and rest, exercise and paced activities, and diaphragmatic breathing 	<ul style="list-style-type: none"> • Tissue: Physical therapy, electrical stimulation, massage therapy, tissue injections, laser therapy, and surgical correction • Nervous system: Nerve blocks, cryotherapy, radiofrequency ablation, spinal cord stimulation, epidural or spinal analgesia, and physical manipulation • Whole body: Acupuncture, functional restoration, multidisciplinary rehabilitation, adapted yoga, and tai chi
Mind	Opioids, antidepressants, antiepileptics, NMDA receptor antagonists	Distraction, relaxation, meditation, education about condition, emotional calming (to reduce fear, anxiety, and stress), positive outlook, self-efficacy, acceptance, mental distraction, and pain and stress coping	Biofeedback, counseling, cognitive-behavioral therapy, coping skills training, guided imagery, and music therapy
Spirit		Prayer, meditation, self-reflective narratives, meaningful rituals, meaningful connections (community/environment), sense of purpose, and energy balance	Intercessory prayer, spiritual counseling, spiritual healing, homeopathic remedies, magnetic therapy, narrative therapy (also called therapeutic storytelling)
Social		Social engagement, kinship maintenance, meaningful social activities, effective communication, work or activities, and problem solving	Psychosocial counseling, family therapy, pet therapy, functional restoration, and vocational training

> DRUG CHALLENGE

By Jennifer Belavic, PharmD

Anticoagulants

Do you know what they contain? Match the brand names in Section I with the generic ingredients in Section II.

SECTION I

- _____ 1. Arixtra (GlaxoSmithKline)
- _____ 2. Coumadin (Bristol-Myers Squibb)
- _____ 3. Lovenox (Sanofi-Aventis)
- _____ 4. Angiomax (The Medicines Co.)

SECTION II

a. enoxaparin 100 mg/mL, 150 mg/mL

Indications for this low-molecular-weight heparin include deep vein thrombosis (DVT) prophylaxis and treatment. Because it's eliminated by the kidneys, patients with renal dysfunction may need dosage adjustments. Use with caution in patients at risk for hemorrhage.

b. bivalirudin 250 mg

A direct thrombin inhibitor, this I.V. drug is indicated in patients with unstable angina undergoing percutaneous transluminal coronary angioplasty. Adjust the dosage for patients with renal impairment, as prescribed.

c. fondaparinux 2.5 mg, 5 mg, 7.5 mg, 10 mg

This Factor Xa inhibitor is indicated for DVT prophylaxis in patients undergoing hip fracture or hip replacement surgery, knee replacement surgery, or abdominal surgery, as well as for treatment of DVT or acute pulmonary embolism when administered with warfarin. Use with caution in patients who have the above conditions or are taking other medications that increase hemorrhage risk.

d. warfarin 1 mg, 2 mg, 2.5 mg, 3 mg, 4 mg, 5 mg, 6 mg, 7.5 mg, 10 mg

This vitamin K antagonist is given at dosages based on the patient's prothrombin time/international normalized ratio. Strictly adhere to the dosage schedule to avoid potentially fatal bleeding. Review the product insert to learn about the many drug interactions associated with warfarin. ■

Unless otherwise specified, the information in the preceding summaries applies to adults, not children. Consult the package insert for information about each drug's safety during pregnancy and breastfeeding. Also consult a pharmacist, the package insert, or a comprehensive drug reference for more details on precautions, drug interactions, and adverse reactions.

Jennifer Belavic is the clinical pharmacist of the Trauma Intensive Care Unit at the University of Pittsburgh Medical Center—Presbyterian Hospital in Pittsburgh, Pa.

DOI-10.1097/01.NURSE.0000394115.14222.4a

ANSWERS: 1-C, 2-D, 3-A, 4-B

unrealistic fears and mistaken beliefs regarding pain medication—for example, that opioids prescribed for severe acute pain cause addiction.

A multimodal approach combining pharmacologic and nonpharmacologic techniques may prevent development of chronic pain in patients with severe or persistent pain.^{2,3} This strategy includes using drugs with complementary mechanisms of action that work synergistically to lower analgesic doses, shorten duration of therapy, and lessen drug toxicity. Many nonpharmacologic modalities are also available (see *Using selected multimodal therapies*).

Multimodal approaches that combine nonpharmacologic pain relief methods can have additive or synergistic effects by simultaneously targeting multiple factors known to affect pain. You can lessen factors known to worsen pain (such as inflammation and emotional distress) with comfort measures and techniques such as mental distraction and Reiki.⁴

Work with the therapeutic team and patient to select at least two treatment types and two different target areas (from the multimodal therapies table) to provide more comprehensive care. These interventions can calm the body, mind, and spirit while minimizing stress-inducing social interactions.^{2,4}

By applying the concepts of balance and multimodal therapy, the healthcare team can give each patient safe, effective, and individualized care. ■

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alzheimer's association

From The Hartford Institute for Geriatric Nursing, New York University College of Nursing and the Alzheimer's Association

Best Practices in Nursing Care to Older Adults with Dementia

Issue Number D2, Revised 2007

Series Editor: Marie Boltz, PhD, GNP-BC
Series Co-Editor: Sherry A. Greenberg, MSN, GNP-BC
New York University College of Nursing

Assessing Pain in Older Adults with Dementia

By: Ann L. Horgas, RN, PhD, FGSA, FAAN, University of Florida College of Nursing

WHY: There is no evidence that older adults with dementia physiologically experience less pain than do other older adults (American Geriatrics Society (AGS), 2002). Rather than being less sensitive to pain, cognitively-impaired elders may fail to interpret sensations as painful, are often less able to recall their pain, and may not be able to verbally communicate it to care providers (AGS, 2002). As such, cognitively impaired older adults are often under-treated for pain.

As with all older adults, those with dementia are at risk for multiple sources and types of pain, including chronic pain from conditions such as osteoarthritis and acute pain. Untreated pain in cognitively impaired older adults can delay healing, disturb sleep and activity patterns, reduce function, reduce quality of life, and prolong hospitalization.

BEST TOOLS: Several tools are available to measure pain in older adults with dementia. Few have been comprehensively evaluated and each has strengths and limitations (Herr, Decker, & Bjoro, 2006). The American Medical Directors Association has endorsed the Pain Assessment in Advanced Dementia Scale (PAINAD) (Warden, et al, 2003).

We recommend the following:

- Ask older adults with dementia about their pain. Even older adults with mild to moderate dementia can respond to simple questions about their pain (American Geriatrics Society, 2002).
- Use a standardized tool to assess pain intensity, such as the numerical rating scale (NRS) (0-10) or a verbal descriptor scale (VDS) (Herr, 2002; See also *Try This: Pain Assessment*). The VDS asks participants to select a word that best describes their present pain (e.g., no pain to worst pain imaginable) and may be more reliable than the NRS in older adults with dementia.
- Use an observational tool (e.g., PAINAD) to measure the presence of pain in older adults with dementia.
- Ask family or usual caregivers as to whether the patient's current behavior (e.g., crying out, restlessness) is different from their customary behavior. This change in behavior may signal pain.
- If pain is suspected, consider a time-limited trial of an appropriate type and dose of an analgesic agent. Thoroughly investigate behavior changes to rule out other causes. Use the PAINAD to evaluate the pain before and after administering the analgesic.

TARGET POPULATION: Older adults with cognitive impairment who cannot be assessed for pain using standardized pain assessment instruments. Pain assessment in older adults with cognitive impairment is essential for both planned or emergent hospitalization.

VALIDITY AND RELIABILITY: The PAINAD has an internal consistency reliability ranging from .50 (for behavior assessed at rest) to .67 (for behaviors assessed during unpleasant caregiving activities). Interrater reliability is high ($r = .82 - .97$). No test-retest reliability is available.

STRENGTHS AND LIMITATIONS: Pain is a subjective experience and there are no definitive, universal tests for pain. For patients with dementia, it is particularly important to know the patient and to consult with family and usual caregivers.

BARRIERS to PAIN MANAGEMENT in OLDER ADULTS with DEMENTIA: There are many barriers to effective pain management in this population. Some common myths are: pain is a normal part of aging; if a person doesn't verbalize that they have pain, they must not be experiencing it; and that strong analgesics (e.g., opioids) must be avoided.

An effective approach to pain management in older adults with dementia is to assume that they do have pain if they have conditions and/or medical procedures that are typically associated with pain. Take a proactive approach in pain assessment and management.

MORE ON THE TOPIC:

Best practice information on care of older adults: www.ConsultGeriRN.org.

American Geriatrics Society Panel on Persistent Pain in Older Persons. (2002). Clinical practice guidelines: The management of persistent pain in older persons. *JAGS*, 50, S205-S224. Available at http://www.americangeriatrics.org/products/positionpapers/persistent_pain_guide.shtml, from the American Geriatrics Society Web site, www.americangeriatrics.org.

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Pain Assessment in Advanced Dementia (PAINAD) Scale

Items*	0	1	2	Score
Breathing independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation.	Noisy labored breathing. Long period of hyperventilation. Cheyne-Stokes respirations.	
Negative vocalization	None	Occasional moan or groan. Lowlevel speech with a negative or disapproving quality.	Repeated troubled calling out. Loud moaning or groaning. Crying.	
Facial expression	Smiling or inexpressive	Sad. Frightened. Frown.	Facial grimacing.	
Body language	Relaxed	Tense. Distressed pacing. Fidgeting.	Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out.	
Consolability	No need to console	Distracted or reassured by voice or touch.	Unable to console, distract or reassure.	
				Total**

* Five-item observational tool (see the description of each item below).

** Total scores range from 0 to 10 (based on a scale of 0 to 2 for five items), with a higher score indicating more severe pain (0="no pain" to 10="severe pain").

BREATHING

1. Normal breathing is characterized by effortless, quiet, rhythmic (smooth) respirations.
2. Occasional labored breathing is characterized by episodic bursts of harsh, difficult or wearing respirations.
3. Short period of hyperventilation is characterized by intervals of rapid, deep breaths lasting a short period of time.
4. Noisy labored breathing is characterized by negative sounding respirations on inspiration or expiration. They may be loud, gurgling, or wheezing. They appear strenuous or wearing.
5. Long period of hyperventilation is characterized by an excessive rate and depth of respirations lasting a considerable time.
6. Cheyne-Stokes respirations are characterized by rhythmic waxing and waning of breathing from very deep to shallow respirations with periods of apnea (cessation of breathing).

NEGATIVE VOCALIZATION

1. None is characterized by speech or vocalization that has a neutral or pleasant quality.
2. Occasional moan or groan is characterized by mournful or murmuring sounds, wails or laments. Groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.
3. Low level speech with a negative or disapproving quality is characterized by muttering, mumbling, whining, grumbling, or swearing in a low volume with a complaining, sarcastic or caustic tone.
4. Repeated troubled calling out is characterized by phrases or words being used over and over in a tone that suggests anxiety, uneasiness, or distress.
5. Loud moaning or groaning is characterized by mournful or murmuring sounds, wails or

laments much louder than usual volume. Loud groaning is characterized by louder than usual inarticulate involuntary sounds, often abruptly beginning and ending.

6. Crying is characterized by an utterance of emotion accompanied by tears. There may be sobbing or quiet weeping.

FACIAL EXPRESSION

1. Smiling is characterized by upturned corners of the mouth, brightening of the eyes and a look of pleasure or contentment. Inexpressive refers to a neutral, at ease, relaxed, or blank look.
2. Sad is characterized by an unhappy, lonesome, sorrowful, or dejected look. There may be tears in the eyes.
3. Frightened is characterized by a look of fear, alarm or heightened anxiety. Eyes appear wide open.
4. Frown is characterized by a downward turn of the corners of the mouth. Increased facial wrinkling in the forehead and around the mouth may appear.
5. Facial grimacing is characterized by a distorted, distressed look. The brow is more wrinkled as is the area around the mouth. Eyes may be squeezed shut.

BODY LANGUAGE

1. Relaxed is characterized by a calm, restful, mellow appearance. The person seems to be taking it easy.
2. Tense is characterized by a strained, apprehensive or worried appearance. The jaw may be clenched (exclude any contractures).
3. Distressed pacing is characterized by activity that seems unsettled. There may be a fearful, worried, or disturbed element present. The rate may be faster or slower.

4. Fidgeting is characterized by restless movement. Squirming about or wiggling in the chair may occur. The person might be hitching a chair across the room. Repetitive touching, tugging or rubbing body parts can also be observed.
5. Rigid is characterized by stiffening of the body. The arms and/or legs are tight and inflexible. The trunk may appear straight and unyielding (exclude any contractures).
6. Fists clenched is characterized by tightly closed hands. They may be opened and closed repeatedly or held tightly shut.
7. Knees pulled up is characterized by flexing the legs and drawing the knees up toward the chest. An overall troubled appearance (exclude any contractures).
8. Pulling or pushing away is characterized by resistiveness upon approach or to care. The person is trying to escape by yanking or wrenching him or herself free or shoving you away.
9. Striking out is characterized by hitting, kicking, grabbing, punching, biting, or other form of personal assault.

CONSOLABILITY

1. No need to console is characterized by a sense of well being. The person appears content.
2. Distracted or reassured by voice or touch is characterized by a disruption in the behavior when the person is spoken to or touched. The behavior stops during the period of interaction with no indication that the person is at all distressed.
3. Unable to console, distract or reassure is characterized by the inability to sooth the person or stop a behavior with words or actions. No amount of comforting, verbal or physical, will alleviate the behavior.

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Fall Risk Assessment for Older Adults: The Hendrich II Fall Risk Model

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WHY: Falls among older adults, unlike other ages tend to occur from multifactorial etiology such as acute^{1,2,3} and chronic⁴ illness, medications,⁵ as a prodrome to other diseases,⁶ or as idiopathic phenomena. Because the rate of falling increases proportionally with increased number of pre-existing conditions and risk factors,⁷ fall risk assessment is a useful guideline for practitioners. One must also determine the underlying etiology of "why" a fall occurred with a comprehensive post-fall assessment.⁸ Fall risk assessment and post-fall assessment are two interrelated, but distinct approaches to fall evaluation, both recommended by national professional organizations.⁹

BEST PRACTICE APPROACH: In acute care, a best practice approach incorporates use of the Hendrich II Fall Risk Model which is quick to administer and provides a determination of risk for falling based on gender, mental and emotional status, symptoms of dizziness, and known categories of medications increasing risk.¹⁰ This tool screens for primary prevention of falls and is integral in a post-fall assessment for the secondary prevention of falls.

TARGET POPULATION: The Hendrich II Fall Risk Model is intended to be used in the acute care setting to identify adults at risk for falls. The Model is being validated for further application of the specific risk factors in pediatric and obstetrical populations.

VALIDITY AND RELIABILITY: The Hendrich II Fall Risk Model was validated in a large case control study in an acute care tertiary facility with skilled nursing and rehabilitation populations. The risk factors in the model had a statistically significant relationship with patient falls (Odds Ratio 10.12-1.00, .01 > p < .0001). Content validity was established through an exhaustive literature review, use of accepted nursing nomenclature and the extensive experience of the principal investigators in this area.¹¹ The instrument is sensitive (74.9%), specific (73.9%) with interrater reliability measuring 100% agreement.

STRENGTHS AND LIMITATIONS: The major strengths of the Hendrich II Fall Risk Model are its brevity, the inclusion of "risky" medication categories, and its focus on interventions for specific areas of risk rather than on a single, summed general risk score. Categories of medications increasing fall risk as well as adverse side effects from medications leading to falls are built into this tool. Further, with permission, the Model can be inserted into existing documentation forms or used as a single document. It has been built into electronic health records with targeted interventions that prompt and alert the caregiver to modify and/or reduce specific risk factors present.¹¹

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CASE EXAMPLE: FALL RISK ASSESSMENT WITH PRIOR FALLS HISTORY

An 80 year old woman with new onset confusion, anxiety and urinary incontinence who has fallen repeatedly at home in the past 2 months is hospitalized for further observation and possible long-term care placement. On admission she is anxious and confused, and unable to move. Medications include Haldol 0.5 mg PO BID and Ativan 0.5 mg PO BID both started 1 week prior to admission. Admission laboratory work shows a normal CBC and SMA-12. The urinalysis has 50 WBC per high-power field and +2 Bacteria. The Hendrich II fall risk score was 9. A comprehensive post-fall evaluation and review of the high risk parameters led to a presumptive diagnosis of the underlying cause of the fall: acute confusion due to urinary tract infection. Haldol and Ativan were stopped and Bactrim DS BID was started. Two weeks later, the urinary incontinence, confusion and anxiety lessened and the falling stopped. She was discharged home to live with her daughter.

CASE DISCUSSION: This woman possesses several "red flag" areas of a dynamic nature, e.g., falls occurring on an acute, potentially reversible basis, acute urinary incontinence, urinary tract infection, poly-pharmacy and delirium. Falling is related to these dynamic events and once the underlying causes of the fall were identified and managed, the falling stopped. Note that the review of fall related risk factors surfaced no past or static events associated with falls, such as dementia or Parkinson's disease, but use of the Hendrich II Fall Risk Model captured significant risk factors including confusion (4 points), administered benzodiazepines (1 point) and inability to rise (4 points). These risks elicited from the Hendrich II Fall Risk Model along with information from a comprehensive post-fall assessment informed the nursing interventions and overall plan of care.

Hendrich II Fall Risk Model™

Confusion Disorientation Impulsivity		4	
Symptomatic Depression		2	
Altered Elimination		1	
Dizziness Vertigo		1	
Male Gender		1	
Any Administered Antiepileptics		2	
Any Administered Benzodiazepines		1	
Get Up & Go Test			
Able to rise in a single movement – No loss of balance with steps		0	
Pushes up, successful in one attempt		1	
Multiple attempts, but successful		3	
Unable to rise without assistance during test (OR if a medical order states the same and/or complete bed rest is ordered) * If unable to assess, document this on the patient chart with the date and time		4	
A Score of 5 or Greater = High Risk		Total Score	
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