Assessing & Managing Pain in Older Adults: Challenges & Opportunities

Mary Ersek, PhD, RN
Director of Research
Swedish Medical Center
Seattle, WA
mary.ersek@swedish.org

2007 ASPMN National Conference
Addison, TX
Objectives

- Describe prevalence and characteristics of pain in older persons
- Describe factors that influence pain perception in older adults
- Discuss challenges in assessing pain
- Describe EB practice guidelines for managing acute pain in older adults
- Describe EB practice guidelines for managing chronic pain in older adults
What is “Old?”
IASP Global Year Against Pain in Older Persons

Proportion of population > 65 years old

Source: U.S. Census Bureau, International Programs Center, International Data Base; D. Lussier, IASP, 2006
Prevalence of Pain in Older Adults

- Community-dwelling older adults: 25–56%  
  (AGS, 2002; Ferrell & Whiteman, 2003)

- Nursing home residents: 45–80%  
  (AGS, 2002; Ferrell & Whiteman, 2003)

- > 50% patients dying of a variety of illnesses, including cancer, COPD, CAD  
  (Solano et al, 2006)

- 50% of hospitalized pts in last 3 days of life  
  (SUPPORT, 1995)

- 31% of women & 19% of men > 75 yrs report pain in 3 or more sites  
  (Urwin et al, 1998)
Prevalence of Acute Pain

Up to 75% of hospitalized adults experience moderate to severe pain at some point in their hospitalization.

19% of older persons admitted to the hospital have moderately or extremely severe pain.

IASP, 2006
The Picture of Pain in Older Adults

- Common types: musculoskeletal, neuropathic, and cancer-related
- In general, pain is persistent, multi-focal, and multi-factorial
- Many hospitalized older adults will have persistent and acute pain
- Pain in older adults often is not assessed & under-treated
Pain Treatment in Hospitalized Older Adults

Cognitively intact elders with hip fracture

- Very severe pain pre-op: 44%
- Very severe pain post-op: 42%
- No standing order for analgesic during entire hospital stay: 83%

Pre-op mean daily dose of parenteral morphine equivalents: 2.6 mg (SD=4.5 mg)
Post-op mean daily dose of parenteral morphine equivalents: 4.1 mg (SD=5.6 mg)

Unrelieved Pain in NH Residents

- 45–85% NH residents have “substantial pain that is undertreated” (AGS, 2002)
- 29% NH residents with cancer experienced daily pain; 26% of these residents received no analgesics (Bernabei et al, 1998)
- 25% of NHs experienced daily noncancer pain; 26% of those received no analgesics (Won et al, 1999)
- 31.8% of bereaved family members reported that NH patients did not receive any or enough help with pain during the last days (Teno et al, 2004)
Consequences of Persistent Pain

- Unnecessary suffering
- Depression and anxiety
- Impaired ambulation, gait disturbance
- Sleep disturbances
- Impaired cognition
- Impaired appetite, weight loss
- Decreased socialization
- Increased healthcare utilization
- Increased agitation and resistance to care

AGS Guideline for Persistent Pain, 2002; IASP, 2006; Scherder et al, 1999
Consequences of Unrelieved Acute Pain in Older Adults

- Impaired ambulation
- Slower functional recovery
- Functional disability
- Higher rate of post-op complications (e.g. atelectasis)
- Chronic pain
- Increased mortality
- ↑ risk for delirium

Morrison et al, 2003; Shea et al 2002; Manku and Leung, 2003; Pasero, Rakel & McCaffery, 2005)
Acute Pain and Delirium

Risk factors for delirium among older adults hospitalized with hip fracture

- Cognitive impairment (RR: 3.6; 95% CI 1.6—7.2)
- Received < 10 mg parenteral MS equivalents (RR: 5.4; 95% CI 2.4—12.3)

In cognitively intact patients, severe pain was associated with 9 times the risk of delirium

Morrison et al, 2003
The Experience of Pain in Older Adults – is it Different?
Effects of Aging on Pain Processing in Humans

- Pain threshold decreases with age
  - EEG responses to acute noxious stimuli ↓ in speed & amplitude
- Pain tolerance decreases with age
  - Degenerative changes in 5HT and NE levels may contribute to impaired descending inhibition and ↓ pain tolerance
  - Decreased efficacy of endogenous opioid analgesic systems

Gagliese & Farrell, 2005
In several studies, older adults with chronic pain report lower catastrophizing, although catastrophizing appears to be significantly associated with poorer outcomes in all age groups.

Older adults may use fewer active, problem-solving coping strategies.

Older adults tend to use more prayer and hoping.

Gibson, 2005
Challenges to Assessing and Treating Pain in Older Adults

- Illness-Related & Physiological Barriers
- Patient and Caregiver Attitudes
- Atypical presentation
- Lack of empirical support for assessment and treatments specific to older adults
Illness-Related and Physiological Barriers

- Sensory deficits
- Cognitive impairment
- Increased sensitivity to medication effects
- Polypharmacy
- Co-morbidity
- Depression
Attitudes that Hinder Pain Reporting, Assessment & Treatment in Older Adults

- Stoicism, not wanting to be a “complainer”
- Concerns about addiction, side effects, tolerance
- Pain in old age is inevitable
- Nothing can be done to relieve pain
- Older adults cannot tolerate strong analgesics
- Older adults are less sensitive to pain
Atypical Presentations

“I don’t have any pain, but I sure am sore!”

“I feel fine — as long as I’m not moving!”

Pain is what the patient says it is — but what if they can’t tell us?
Nonverbal Patients

- Coma
- Advanced dementia
- Status post stroke
- End of life
- Developmentally disabled
- Delirium
Cognitive Impairment & Pain Management: Acute Care

- Advanced dementia patients hospitalized with hip fracture received 1/3 the amount of opioid analgesia that cognitively intact older patients received (Morrison & Siu, 2000)

- Cognitively impaired (MMSE < 23) hip surgery pts received significantly less opioids than intact older patients despite reporting similar pain intensity (Feldt et al, 1998)
What is Different about the Pain Experience of People with Advanced Dementia?

- Tolerance to **acute** pain *possibly* increases but pain threshold does not appear to change.
- Dementia may blunt ANS response to acute pain.
- Cognitive impairment *may* decrease the perceived analgesic effectiveness.
- Pain can negatively affect cognitive function.
ASPMN Position Statement

Follow ethical principles: beneficence, autonomy, nonmaleficence, justice
Establish a pain assessment procedure
Use Hierarchy of Pain Assessment Techniques
“Assume Pain is Present”
Use empirical trials
Re-assess and document

An Interdisciplinary Expert Consensus Statement on Assessment of Pain in Older Persons

Thomas Hadjistavropoulos, PhD, Keela Herr, PhD, RN, FAAN, et al

ASPMN Prioritized Pain Assessment

1. Patient’s self-report
2. Painful medical conditions or procedures
3. Behaviors (e.g., facial expressions, crying)
4. Report of pain from a family member or caregiver
5. Response to empirical therapy
Can Patients with Cognitive Impairment Reliably Report Pain?

- CI NH residents slightly underreport pain, but their reports are valid (Parmelee et al., 1993)
- 83% of CI NH residents could reliably complete at least one pain scale (Ferrell et al., 1995)
- 73% of post-op patients with moderate CI were able to complete a 4-point verbal descriptor scale (Feldt et al., 1998)
Pain Behavior Assessment Tools

- Checklist for Nonverbal Pain Indicators (CNPI) (Feldt, 2000)
- NOPAIN (Snow et al, 2004)
- PAIN-AD (Warden et al, 2003)
- Pain Assessment Scale for Seniors with Severe Dementia (PACSLAC) (Fuchs-Lacelle & Hadjistavropoulos, 2004)

Available at: http://www.cityofhope.org/prc/elderly.asp
Caregiver Report
Assess for possible pain behaviors

Document assessment and Rx response

Re-evaluate pain behaviors

Administer analgesic

Ensure basic comfort needs are met

Evaluate and treat new acute problems (e.g., UTI)

Empirical Analgesic Therapy: When in Doubt, Treat
Evidence for attempting empirical analgesic trial

- 650 mg TID APAP: 63% decrease in negative behaviors, 75% psychotropics discontinued (Douzjian et al, 1998)

- Standardized assessment and treatment protocol significantly decreased discomfort among demented NH residents (Kovach et al, 1999)

- Regular analgesic therapy increased social engagement in NH residents (Chibnall et al, 2005)
Assessing and Managing Acute Pain

Herr, et al: Evidence-based Practice Guideline – Acute Pain Management Older Adults, University of Iowa College of Nursing, 2006

Available at:
http://www.nursing.uiowa.edu/centers/gnirc/protocols.htm
EBP Guidelines for Persistent and EOL Pain


Mclennon SM. Persistent pain management. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, 2005
Pearls from the Guidelines

- Minimize reliance on physical signs of pain
- Include cognitive status in your initial pain assessment
- Establish the terms the patient uses to describe their pain and document
- Establish the pain intensity tool that works for the individual and use it consistently
- Teach patient and caregiver; assess barriers and teach appropriately
Pearls from the Guidelines: Using Patient-controlled Analgesia

- PCA can be used with older adults esp. during the immediate post-procedure period
- Screen for cognitive & physical ability to manage PCA
- Avoid basal infusion in opioid-naïve older adults unless the patient is awakened by pain during sleep
- If using basal, keep low, 0.5 mg/hour of MS or equivalent) & monitor sedation & respiratory status
Delirium may be caused by factors other than opioids
Post-op delirium associated with unrelieved pain rather than opioid use
If other causes of delirium are not found and pain is effectively managed, consider decreasing the opioid dose
Consider short-term use of haloperidol; caution – may mask pain behaviors
Pearls from the Guidelines

- Initiate opioid therapy at a 25% to 50% lower dose than recommended for younger adults
- Always combine analgesic therapy with nondrug therapy
- Use NSAIDs with great caution and only for short-term therapy
- Maximize APAP dose (4 gm/day)
- Use empirical analgesic trials for nonverbal patients
- Avoid use of codeine and propoxyphene
- Elicit patient goals for therapy, include functional goals