The Betty Irene Moore School of Nursing Lecture Series:

LEADING CHANGE, ADVANCING HEALTH

Quality Pain Care for All Older Adults: Progress & Future Directions

Keela Herr, Ph.D., R.N., A.G.S.F., F.A.A.N.
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The University of Iowa
Quality Pain Care for All Older Adults: Progress & Future Directions

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Professor & Co-Director, Iowa Hartford Center of Geriatric Nursing Excellence
The University of Iowa
Conflict of Interest Disclosure

- No Conflict of Interest

- Funding in past 12 months
  - National Institutes for Health
  - The Mayday Fund
  - American Hospice Foundation
My Goals

- Discuss current state of pain care for older adults
- Key challenges and future directions
Why do we care?

- Aging of Society
  - 65+ Population Will Nearly Double by 2030
    - 1 in 8 > 65 in 2007 (13% population)
    - 1 in 6 > 65 in 2020 (20% population)

- Increased presence in health care
  - 38% of emergency medical services responses
  - 46% of patients in critical care
  - 50% of hospital days
  - 50% of specialty ambulatory care visits
  - 60% of adult primary visits
  - 70% of home health services
  - 90% of residents in nursing facilities

(John A. Hartford Foundation, 2007; IOM 2008)
<table>
<thead>
<tr>
<th>Setting</th>
<th>Prevalence of pain</th>
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<tbody>
<tr>
<td>Nursing Home (9952 OA/185 NHs) (Lapane et al., 2012)</td>
<td>51.4% overall some pain</td>
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<td>78% mild cog impairment</td>
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<td>22% mod–severe cog impairment</td>
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<td>Hospital (367 OA/8 hosp)</td>
<td>67% pain present</td>
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<td>Home/Community</td>
<td>65% chronic pain present</td>
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<td>(Eggermont et al., 2014; (634 OA)) (Patel et al., 2013; 7601 OA)</td>
<td>53% bothersome pain</td>
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<tr>
<td>Hospice (738 OA with cancer/16 hospices) (Herr et al., 2012)</td>
<td>83% pain present</td>
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<td>40% pain at admission and</td>
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<td>43% pain controlled on analgesics</td>
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</table>
In person interviews national sample 7601 adults > 65 yrs

Bothersome pain in last month = 52.9%

- No change across age group accounting for cognitive performance, dementia, proxy report, residential care status
- Highest in women, obese, musculoskeletal conditions, depression

74.9% multiple sites of pain

Associated with decreased physical function
Do we have reliable and valid pain assessment tools for cognitively intact and impaired older adults?

Are tools integrated into practice to identify and monitor pain in older adults across care settings?

What are key issues related to existing pain assessment tool use in older adults?
Domains of Comprehensive Pain Assessment in Older Adults

- Initial determination or ongoing monitoring of pain
  - Self-reports (uni and multidimensional) & behavioral observation

- Medical, pharmacologic, and functional assessment of pain-related concerns
  - Physical exam, pharm eval, age-related physical concerns, sensory impairment, functional assessment

- Assessment of psychosocial factors contributing to pain complaint
  - Psychosocial comorbidities and complicating factors, cognitive processes, coping, affective processes, interpersonal processes

Number of tools evaluated in older adults

Further support in recent years
Selected Pain Intensity Scales for Older Adults

(Gagliese et al., 2005; Herr et al., 2007; Lukas et al., 2013; Personen et al., 2009; Wood et al., 2010)

**Simple VDS**
- 0 = None
- 1 = Mild
- 2 = Moderate
- 3 = Severe

(Closs et al., 2004)

**Verbal Descriptor Scale (VDS)**
- ___ Most Intense Pain Imaginable
- ___ Very Severe Pain
- ___ Severe Pain
- ___ Moderate Pain
- ___ Mild Pain
- ___ Slight Pain
- ___ No Pain

(Herr et al., 2004)

**McGill Present Pain Inventory (PPI)**
- 0 = No pain
- 1 = Mild
- 2 = Discomforting
- 3 = Distressing
- 4 = Horrible
- 5 = Excruciating

(Melzack & Katz, 1992)

**Iowa Pain Thermometer**

(NRS)

(Herr et al., 2004)

**Faces Pain Scale–Revised**

(Hicks et al., 2001)
Assessing Pain in Older People With Persistent Pain: The NRS Is Valid But Only Provides Part of the Picture

Bradley M. Wood,* Michael K. Nicholas,* Fiona Blyth,* † Ali Asghari,* † and Stephen Gibson§ ‡

Largest study (800) community elders attending tertiary pain clinic

- NRS as valid and reliable tool for measuring pain intensity and distress;
- Sign correlations with other pain measures
- Failure rates significantly increase with increasing age
  5.5% in 61-70
  7.8% 71-80
  11.1% in >81

75% over 75 yrs with reported ‘painful but bearable’ equated NRS 4, 5, 6 this category

CANNOT RELY SOLELY ON NRS

The diagnostic value of the numeric pain rating scale in older postoperative patients

Jacqueline FM van Dijk, Teus H Kappen, Albert JM van Wijck, Cor J Kalkman and Marieke J Schuurmans

Question standard cut-offs?
Do we have reliable and valid pain intensity tools for use with cognitively impaired older adults?

- Geriatric hospital, 178 pts (Lukas et al, 2013)
  - Good cross tool correlations; Lower @ rest, than movement
  - Most stable tool with increasing CI: VRS
  - Level of impairment for inability to use (MMSE 10)
Can we improve our clinical assessment approach?

- **Pain intensity**—5th Vital Sign
  - Backlash from patients related to repetitive assessments that don’t fully capture their experience
  - More patient-centered approach?

- **Pain impact scales**—too time consuming?
  - Brief Pain Inventory—SF and adapted
  - Pain Disability Index
  - Geriatric Pain Measure—Short Form (GPM-12)

- **Interview**—lack consistency?
  - Informal questioning—underestimates pain (Lorenz et al 2009; van Dijk et al; 2012)
  - Pain Question phrasing (McGuire et al., 2009)

- **Emphasis on impact/tolerability/satisfaction with treatment plan?**
The **Functional Pain Scale**: Reliability, Validity, and Responsiveness in an Elderly Population

F.M. Glotch, III, MD, CMD, A.A. Schewe, MS, RN-C, C.V. Stoker, BS, Selina Chow, Jane Prosser, BS

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**Functional Pain Scale**

<table>
<thead>
<tr>
<th>No Pain</th>
<th>Doesn’t interfere with activities</th>
<th>Interferes with some active activities</th>
<th>Interferes with active, but not passive activities</th>
<th>Interferes with even passive activities</th>
<th>Intolerable. Incapacitated, by pain</th>
</tr>
</thead>
</table>

Active activities: usual activities or those requiring effort (turning, walking, etc)
Passive activities: talking on phone, watching TV, reading
Clinically valid, physiological measure of pain for dementia?

Towards a Physiology-Based Measure of Pain: Patterns of Human Brain Activity Distinguish Painful from Non-Painful Thermal Stimulation

Justin E. Brown¹,²,³, Neil Chatterjee¹,⁴, Jarred Younger¹, Sean Mackey¹,²,³

An fMRI-Based Neurologic Signature of Physical Pain

Tor D. Wager, Ph.D., Lauren Y. Atlas, Ph.D., Martin A. Lindquist, Ph.D., Mathieu Roy, Ph.D., Choong-Wan Woo, M.A., and Ethan Kross, Ph.D.

Biomarkers—neuropeptides
(Sowa et al., 2014)
Hierarchy of Pain Assessment Techniques

- Patient self report
- Potential causes of pain (acute and chronic)
- Pain behaviors
- Surrogate report and behavior change
- Response to analgesic trial

Reliable and Valid Tools for Pain Behavior Assessment in Severely Impaired Older Persons?

No single best tool for all settings
Comprehensive Behavior Tool vs Brief Direct Observation?

- Tools range from 5 behavioral categories to 60 individual behaviors—
  - rating presence vs intensity
  - Variable use and definition of behaviors

- Are there key behaviors that will ID pain in most persons with dementia?

- Need to discriminate pain behavior and behaviors from other causes (Ersek leading VA study)

- Goal to identify most specific indicators of pain in nonverbal older persons without missing pain in those with less typical behaviors
Support of Atypical Pain Behaviors Growing

- Cluster RCT 18 NH-352 subjects
- Verbal agitation behaviors and restlessness and pacing responsive to treatment

Pain interventions effective in reducing pain and behavioral symptoms, such as depression, agitation/aggression, anxiety
Most tool scores show increase/decrease in behavior or intensity of behavior

- Cutoff scores: limited evidence, small scale evaluation
- Challenge for treatment decisions
Guidelines and Position Statements on Pain Assessment in Older Adults

CONCISE GUIDANCE TO GOOD PRACTICE
A series of evidence-based guidelines for clinical management

NUMBER 8
The assessment of pain in older people

NATIONAL GUIDELINES
October 2007

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

Thomas Hadjistavropoulos, PhD* Keela Harrison, PhD† Dennis C. Turk, PhD∥ Perry G. Fine, MD§
Robert H. Dworkin, PhD∥∥ Robert Stohne, MBBS, PhD∥∥ Kenneth Jackson, PharmD∥∥
Patricia A. Parmelee, PhD,** Thomas E. Rudy, PhD†∥∥ B. Lyon Beutler, MD,**
John T. Clewbon, PhD,§ Kenneth D. Craig, PhD∥ Betty Ferrell, PhD,** Bruce Ferrell, MD,**
Roger B. Fillipign, PhD,*** Lucia Gaistone, PhD,*** Romayne Gallagher, MD,††
Stephen J. Gibson, PhD,§§ Elizabeth L. Harrison, PhD,§§ Benny Katz, MBBS,§§
Francis J. Keefe, PhD,††† Susan J. Lieber, MS,†† David Lastner, MD,†††
Kenneth E. Schumacher, MD,†††† Raymond C. Tiet, PhD,§§ Debra K. Weiler, MD,††††
and Jamie Williams, MAS§§§

Position Statement


Pain Assessment in the Patient Unable to Self-Report: Position Statement with Clinical Practice Recommendations

* Keela Hess, PhD, RN, AGSF, FAAN
† Patrick J. Coyne, MSN, RN, APRN, FAAN
∥ Margo McCaffery, MS, RN, FAAN
‡ Renee Manwaring, PhD, RN, CB, APRN, PCNS-BC
∥∥ and Sandra Merkel, MS, RN-BC
## Pain Assessment Practices Across Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Sample</th>
<th>Pain Assessment?</th>
</tr>
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<tbody>
<tr>
<td>Hospital</td>
<td>100 pts mean age 86</td>
<td>33% no objective assessment by nursing</td>
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<tr>
<td>(Mehta et al., 2010)</td>
<td>62% hip fracture</td>
<td></td>
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<tr>
<td>Nursing Home</td>
<td>14 NH (8 not profit; 6 for profit)</td>
<td>32% Pain assessed weekly</td>
</tr>
<tr>
<td>(Jablonski et al., 2009)</td>
<td>291 residents with pain</td>
<td>25% Mild pain-2x/mo, Mod pain-weekly</td>
</tr>
<tr>
<td>Hospice</td>
<td>Mean age 78</td>
<td>15–16% reassess with mod-severe pain</td>
</tr>
<tr>
<td>(Herr et al., 2012)</td>
<td>83% pain</td>
<td>Cog impaired—no validated pain behavior tool</td>
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</tbody>
</table>

Assessment of Pain with Valid & Reliable Pain Tools

NOT CONSISTENT
Goal: Optimal Pain Relief

Safety
Efficacy
Function/QOL

Risks
Tolerability
Patient Characteristics

*Quality/frequency of assessments

*Optimized nondrug approaches

*Balance risk/benefits and optimize use

*Minimize ADR/misuse/abuse

*Monitor & document outcomes

Key Questions: Treatment

- Do we have evidence to support pharmacologic and nonpharmacologic intervention selection and tailoring for older adults?
- Are evidence-based pain management practices implemented consistently?
- Key issues to effective pain management?
Nonpharmacologic Treatment

- Patient education
- Exercise (therapeutic, physical therapy, general, yoga, Tai Chi)
- Self–management programs (acceptance/commitment tx, coping)
- Cognitive and behavioral therapies (biofeedback)
- Distraction (music, humor)
- Relaxation (imagery, hypnosis, massage, meditation)
- Thermal treatments (heat, cold)
- Assistive devices (splinting, orthotics, positioning)
- Energy Field therapy (healing touch, reiki)
- Acupuncture/acupressure, TENS
- Aromatherapy and other CAM

(Arnstein, 2011; Bruckenthal, 2010; McCauley et al., 2008; Morone & Greco, 2007; Park & Hughes, 2012; Reid et al., 2008; Shengelia et al., 2013; Tse, Wan & Ho, 2011)
Nonpharmacological Approaches to the Management of Chronic Pain in Community-Dwelling Older Adults: A Review of Empirical Evidence

Juyoung Park, PhD, * and Anne K. Hughes, PhD†

Review Article

Complementary Therapies for Osteoarthritis: Are They Effective?

Rouzi Shengelia, MD*, Samantha J. Parker, AB*, Mary Ballin, GNP-BC, CDE†, Teena George, MBBS*, M. Carrington Reid, MD, PhD* ⋆ ⋆
Self-management intervention for chronic pain in older adults: A randomised controlled trial

Michael K. Nicholas a,*, Ali Asghari a, b, Fiona M. Blyth a, c, d, Bradley M. Wood a, Robin Murray a, Rebecca McCabe a, Alan Brnabic e, Lee Beeston f, Mandy Corbett g, Catherine Sherrington h, Sarah Overton i

A physiotherapist-delivered, combined exercise and pain coping skills training intervention for individuals with knee osteoarthritis: A pilot study

Michael A. Hunt a,*, Francis J. Keefe b, Christina Bryant c, Ben R. Metcalf d, Yasmin Ahamed d, Michael K. Nicholas e, Kim L. Bennell d
Gaps

- Effectiveness in real world
  - outcomes on pain and function
- Use in frail and cognitively impaired
- Guidance in patient selection
- Techniques and formats
- Availability—access, technology, funding
- Preference & Adherence
- Sustaining effect
Pharmacological Management of Persistent Pain in Older Persons

American Geriatrics Society Panel on the Pharmacological Management of Persistent Pain in Older Persons

American Geriatrics Society Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults

The American Geriatrics Society 2012 Beers Criteria Update Expert Panel

Arthritis Care & Research
Vol. 64, No. 4, April 2012, pp. 465-474
DOI 10.1002acr.21596
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American College of Rheumatology 2012 Recommendations for the Use of Nonpharmacologic and Pharmacologic Therapies in Osteoarthritis of the Hand, Hip, and Knee

MARC C. HOCHBERG,1 ROY D. ALTMAN,2 KARINE TOUPIN APRIL,3 MARIA BENKHALTI,3 GORDON GUYATT,4 JESSIE McGOWAN,3 TANVEER TOWHEED,3 VIVIAN WELCH,3 GEORGE WELLS,3 AND PETER TUGWELL3
Guidelines and Position Statements on Pain Management in Older Adults


Age and Ageing 2013; 42: i1–i57

doi: 10.1093/ageing/afs200

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Guidance on the management of pain in older people

AMDA Clinical Practice Guideline (CPG) for Pain Management

Revised 2012
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<th>Setting</th>
<th>Prevalence of pain</th>
<th>No Pain Treatment?</th>
</tr>
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<tbody>
<tr>
<td>Nursing Home (2508 OA/185 NHs) (Lapane et al., 2013)</td>
<td>Random sample all with pain in two MDS assessments</td>
<td>23% no scheduled meds &gt; Age and cog impairment</td>
</tr>
<tr>
<td>Hospital (367 OA/8 hosp) (Gianni et al., Arch Geront &amp; Geriatrics, 2010)</td>
<td>67% pain present 51% no treatment or inadequate for intensity</td>
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<tr>
<td>Emerg Dept (7,585 ED visits 75 or older) (Platts-Mills et al, 2012)</td>
<td>All pain-related ED visits 51% no analgesics (compared to 32% 35–54 yrs)</td>
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<tr>
<td>Home Care (2779 OA) (Maxwell et al., 2008)</td>
<td>48% daily pain</td>
<td>22%</td>
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**Treatment of Pain NOT CONSISTENT**
Barriers to Pharmacologic Pain Management in Older Adults: Provider and System Issues

- Provider Knowledge Gaps
  - No consistent training on geriatrics and/or pain
  - Knowledge to balance benefits/risk for best treatment plan

- Knowledge Gaps Re: Analgesic Use in Older Adults
  - Strength of evidence in existing pain guidelines for older adults
  - Limited research on analgesic use in older adults
    - specifically the complex including cog impaired

- Political/Regulatory Climate
  - National Public Health Concerns Re Opioid Misuse/Abuse (CDC)
  - Federal concern re: safe and effective analgesic use (FDA; NIA; NIH Pain Consortium)
  - PROP—physicians for responsible opioid prescribing
  - DEA requirements for opioid prescriptions in VA

(Kaasalainen et al., 2010, 2012; Taylor, Lemtounti, Weiss & Pergolizz, 2012, Current Geron & Ger Res,12; Chou et al., 2009, J Pain, 10(2):113–130)
Analgesic Safety in Older Adults

The Comparative Safety of Analgesics in Older Adults With Arthritis

Daniel H. Solomon, MD, MPH; Jeremy A. Rassen, ScD; Robert J. Glynn, PhD; Joy Lee, BA; Raisa Levin, MS; Sebastian Schneeweiss, MD, ScD

The Comparative Safety of Opioids for Nonmalignant Pain in Older Adults

Daniel H. Solomon, MD, MPH; Jeremy A. Rassen, ScD; Robert J. Glynn, PhD, ScD; Katie Garneau, BA; Raisa Levin, MSc; Joy Lee, BA; Sebastian Schneeweiss, MD, ScD
Analgesic Safety in Older Adults

Adverse Effects of Analgesics Commonly Used by Older Adults With Osteoarthritis: Focus on Non-Opioid and Opioid Analgesics

Christine K. O’Neil, PharmD,¹ Joseph T. Hanlon, PharmD, MS,²⁷ and Zachary A. Marcum, PharmD, MS,²³⁷

Review Article

Pain Management in the Elderly: An FDA Safe Use Initiative Expert Panel’s View on Preventable Harm Associated with NSAID Therapy

Robert Taylor Jr.,¹ Salma Lemtouni,² Karen Weiss,² and Joseph V. Pergolizzi Jr.³
Panel Conclusion: “Evidence is insufficient to determine the evidence for long-term opioid therapy for improving chronic pain and function. Evidence supports a dose-dependent risk for serious harms.”

Panel Recommendation: “In the absence of definitive evidence, clinicians and health systems should follow current guidelines by professional societies about which patients and which types of pain should be treated with opioids and about how best to monitor patients and mitigate risk for harm.”
Pain in Older Adults

Ongoing Challenge
Advances in Geriatric Pain Mgt

- Greater awareness of the impact of pain
- Validation of pain assessment scales and approaches to assessment in cognitively impaired
- Determining and monitoring effect of pain on function and quality of life and individualizing pain care plan
- Recognition of the importance of multimodal therapy
- Growing evidence base to support analgesic therapy and nonpharmacologic approaches

CHALLENGE:

Implementation of Best Practices
Findings:

*Cultural transformation needed in way pain is viewed and treated
*Chronic pain viewed as disease itself
*Pain is a public health problem
*More consistent data on pain needed
*Population-based strategies needed
*Significant barriers to adequate pain care

Education central part of transformation

More consistent data on pain needed

Research to translate advances into effective treatments
Education is a Key Step

IASP Interprofessional Pain Curriculum
Led by Dr. Judy Watt-Watson

Core Competencies for Pain Management: Results of an Interprofessional Consensus Summit

Funded by The Mayday Fund
Resources to Enhance Education

- NIH Pain Consortium partnership with 12 schools
- Develop, evaluate and distribute pain management curriculum resources for health professional schools
- Includes older adult content

New Center Funding Expected Spring 2015

The 12 CoEPEs awardees are:
- Harvard School of Dental Medicine
- Johns Hopkins University
- Southern Illinois University Edwardsville
- Thomas Jefferson University School of Medicine
- University of Alabama at Birmingham
- University of California, San Francisco
- University of Maryland
- University of Pittsburgh
- University of New Mexico
- University of Pennsylvania Perelman School of Medicine
- University of Rochester
- University of Washington
Research Priorities

• Refining Assessment Approaches
• Selecting and Adapting Complementary and Alternative Therapies
• Safety & Efficacy & Effectiveness of Analgesics
• Implementation Strategies to Promote EBP Use

Collaborative/interdisciplinary
research teams

Increased funding

Critical Reviews

Pain and Aging: The Emergence of a New Subfield of Pain Research

Lucia Gagliese
NIH Pain Consortium Outcome

Review Article
Improving the Pharmacologic Management of Pain in Older Adults: Identifying the Research Gaps and Methods to Address Them

RFA 2011: Leveraging Existing Data or Longitudinal Studies to Evaluate Safety and Effectiveness of Pharmacological Management of Chronic Pain in Older Adults
Visiting with grandchildren

Dancing

Socializing/Game playing

Socializing

Swim/Water Exercise

Tennis
THANK YOU
Core Values and Principles: Advocacy, Empathy, Collaboration, Ethical Treatment, Communication

Meeting the Needs of the Person in Pain

What is pain?

How is pain recognized?

How does context influence pain management?

How is pain relieved?