Pain and Dementia: A Challenge with Opportunities

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Objectives

1) Discuss the problem and challenges of assessing and treatment pain in older persons with dementia.

2) Identify strategies for assessing pain in persons who are unable to self-report due to cognitive impairment.

3) Describe pharmacological and nonpharmacological intervention approaches for pain management in persons with dementia.

4) Identify resources to support best practices

Older Population Is Growing

Number of Persons 65+, 1900-2030 (in millions)

65+ Population Will Nearly Double by 2030

1 in 8 > 65 in 2007

1 in 6 > 65 in 2020

Year (as of July 1)

Frequency of Pain in Older Adults

- Pain is commonly reported
  - Community-dwelling older adults 30-50%
  - Nursing Home 45-80%
  - Hospitalized patients
    - Reason for admission
    - Geriatric Unit 67%

- 50% of older adults report arthritis and 46% of these report pain on a regular basis

## Painful Conditions Occur With Aging

<table>
<thead>
<tr>
<th>Condition</th>
<th>Increase prevalence with age?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteoarthritis</td>
<td>Yes</td>
</tr>
<tr>
<td>Cancer</td>
<td>Yes</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>Yes</td>
</tr>
<tr>
<td>Claudication</td>
<td>Yes</td>
</tr>
<tr>
<td>Post-herpetic neuralgia</td>
<td>Yes</td>
</tr>
<tr>
<td>Spinal Stenosis</td>
<td>Yes</td>
</tr>
<tr>
<td>Fibromyalgia</td>
<td>Yes</td>
</tr>
<tr>
<td>Diabetic neuropathy</td>
<td>?</td>
</tr>
<tr>
<td>Constipation</td>
<td>Yes</td>
</tr>
<tr>
<td>Fractures</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Ineffectively Treated Pain in LTC

Ongoing Challenge
Pain Undertreatment in Cognitively Impaired

- **Nursing Home residents (551 from 6 NHs)** (Reynolds et al., JPSM, 35, 2008)
  - From Minimum Data Set and observed behaviors, 25% pain in past week with lower reports in CI (p < .001)
  - No impairment: 34%
  - Mild impairment: 31%
  - Moderate impairment: 24%
  - Severe impairment: 10%

- Presence of diagnoses likely to cause pain SAME
  - 50% cognitively intact; 48% cognitively impaired

- Fewer CI received pain medications (p < .001)
  - 80% cognitively intact; 56% with severe impairment
  - 42% intact and 23% impaired with orders for scheduled meds

Pain Prevalence and Assessment

(Williams et al., 2005)

- 331 residents with dementia in 45 AL and NH
  - 76% any pain
  - 21% pain > 2 out of 5
  - 42% with depression (sign. correlate)

- 25% not professionally assessed
- 60% no standardized assessment
- 19% with pain receiving no treatment
Effects of Unrelieved Persistent Pain in Older Patients

(Bonnewyn et al., 2009; Landi et al., 2009; Snow et al., 2009)

Untreated Pain

Increased Health Care Utilization and Costs

CONSEQUENCES

- Sleep Disturbance; Malnutrition
- Decline in Social & Recreational Activities
- Physical Function Decline; Falls
- Depression; Anxiety; Impaired Cognition

What do we know about pain impact in older adults with dementia?

Selected System Barriers to Pain Management in LTC

- Failure to make pain management a high priority
- Lack of plan/procedure to institutionalize pain assessment and management
- Lack of systematic and collaborative approach to pain assessment/management
- Lack of accountability for pain management
- Regulations that restrict the prescription/dispensing of controlled substances/Limited onsite formularies
- High staff turnover, including DNO, RNs, CNAs
- Few RNs; short staffing

(APS, 2005; Gordon et al., 2008; Sun et al., 2007; Kaasaleinen et al., 2010; 2012)
Selected Health Care Provider Barriers to Pain Management in LTC

- Misbeliefs regarding pain in older persons
- Inadequate knowledge related to pain assessment and management
- Challenges in older adults (multiple comorbidites, polypharmacy, pharmacokinetic and dynamic changes in aging)
- Concern/lack of knowledge about tolerance, physical dependence and addiction
- Fear of regulatory scrutiny
- Most direct care provided by CNAs
- Competing demands and priorities with complex care

(Dawson et al., 2005; Herr 2002; Jones et al., 2004; Kaasalainen et al., 2010; 2012)

Selected Patient Barriers to Pain Management in LTC

- Reluctance to report pain
  - Pain is inevitable and normal part of aging
  - Providers know if in pain
  - Don’t want to be bother or distract provider from treatment
- Reluctance to take pain medications as prescribed
  - Save pain medicine for when really bad
  - I’ll get hooked or addicted
  - Side effects worse than pain
- Difficulty expressing needs; cognitive impairment
- Atypical signs and symptoms
- Expectations for relief low

(Dawson et al., 2005; Herr 2002; Jones et al., 2004; Kaasalainen et al., 2010; 2012)
Today 1st Step

Address knowledge gaps

Misperceptions Regarding Pain in Cognitively Impaired (CI)

- CI don’t have as many pain-related conditions
- CI feel less pain
- If they don’t tell us they hurt, they must not be hurting
- We can’t assess their pain
Pain and Dementia

- No evidence that peripheral nociceptor responses or pain transmission impaired in dementia (sensory threshold) (Cole et al., 2006; Lints-Martindale et al., 2008; Gibson et al., 2001; Kunz et al., 2009; Schulter 2004)

- Central nervous system changes may intensify or diminish interpretation of pain transmission (affective response) (Benedetti et al., Pain, 111, 2004; Kunz et al., Eur J Pain, 13, 2009; Scherder & Bouna, 2000; Scherder et al., Lancet, 2, 2003; 2005; Cole et al., Eur J Pain 2011; 15)

- Dementia may blunt ANS response to acute pain (Rainero et al, Eur J Pain, 4, 2000; Plooij, Swaab & Scherder, Rev Neurosci, 22, 2011)

- Severe dementia patients do not experience less pain intensity, numbers of pain diagnoses and pain locations (Husebo et al., JAMDA, 9, 2008; Shega et al., 2010)

ASSUME PAIN PREVALENCE AND SEVERITY SAME AS INTACT

Differences by Dementia Type?

<table>
<thead>
<tr>
<th>Condition</th>
<th>Possible neuropathology</th>
<th>Motivational-affective aspects of pain</th>
<th>Sensory (intensity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer's disease</td>
<td>Degeneration of thalamic intralaminar nuclei</td>
<td>Decreased</td>
<td>Unaffected</td>
</tr>
<tr>
<td>Vascular dementia</td>
<td>De-afferentiation</td>
<td>Increased</td>
<td>Unknown</td>
</tr>
<tr>
<td>Frontotemporal dementia</td>
<td>Degeneration of prefrontal cortex</td>
<td>Decreased</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Scherder et al., 2005
### Differentiating Dementia from Delirium

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Dementia (Mini-Cog)</th>
<th>Delirium (CAM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>•Loss intellectual fx, esp abstraction, memory, deficits in time sense, language, reasoning, judgment and ability to carry out ADLS</td>
<td>•Alternations in perception, memory, sleep/wake, time sense</td>
<td></td>
</tr>
<tr>
<td>•Awareness usually not reduced</td>
<td>•Awareness maybe reduced</td>
<td></td>
</tr>
<tr>
<td>•Attention normal, maybe disinterested, disinhibited</td>
<td>•Inattentive, easily distractible, difficulty keeping track</td>
<td></td>
</tr>
<tr>
<td>•Inability to tolerate fatigue, change and multiple stimuli</td>
<td>•Thoughts disorganized, distorted</td>
<td></td>
</tr>
<tr>
<td>•Maybe have trouble finding words</td>
<td>•Speech incoherent, slow or accelerated</td>
<td></td>
</tr>
<tr>
<td>•May make great effort to find appropriate responses</td>
<td>•Variable psychomotor activity</td>
<td></td>
</tr>
<tr>
<td>•Hallucinations not prominent</td>
<td>•Fear, paranoia, hallucinations possible</td>
<td></td>
</tr>
<tr>
<td>•Affect flat or superficial, inappropriate and labile</td>
<td>•More marked at night than day or when fatigued</td>
<td></td>
</tr>
<tr>
<td>•Attempts to conceal deficits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>•Difficulty planning and executing motor function, with severe deficits later</td>
<td></td>
<td></td>
</tr>
<tr>
<td>•Symptoms typically stable over short periods of time, thought changes due to stress</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Onset/Duration | Insidious over months to years | Sudden, hours to days |

### Risk Factors for Delirium

- Usually multiple precipitating factors
- **Cognitive and Behavioral Disorders:** Cognitive impairment and dementia, Depression, Alcohol use, Sleep deprivation
- **Disease/Illness Related:** Severe illness / comorbidities, Renal insufficiency, Anemia, Hypoxia,
- **Metabolic:** Poor nutrition, Dehydration, Electrolyte abnormalities
- **Functional Impairments:** Poor functional status, Immobilization, Hearing or vision impairment
- **Other:** Older age ≥ 70 years, Polypharmacy and use of psychotropic medications (opioids, benzodiazepines, anticholinergics and antihistamines), Risk of urinary retention or constipation, presence of urinary catheter, **PAIN**

(Geriatrics at Your Fingertips, 2011; Robinson & Vollmer, Medsurg Nsg, 2010; Schreier, Pain Mgt Nsg, 2010)
Evidence-Based Practice

- Uses best available research in combination with clinician's expertise/judgment, patient's preferences/values (Windle, 2006)
  - Research alone is not sufficient

- Clinical Practice Guidelines developed & disseminated
  - AGS Panel on Persistent Pain in Older Persons (2009), Clinical Practice Guidelines on Persistent Pain in Older Adults. JAGS; 57(8), 1331-1346.
  - AMDA (2009), Pain Management in the Long-Term Care Setting

Most common reason for under-treated pain

Failure to Assess Pain

Treatment plans based on pain identification and leveling severity

Consistent and continuous evidence of lack of assessment
Goals of Clinical Assessment of Pain

- To recognize the existence of pain
- To characterize an individual’s pain by type and quality, location, intensity, and etiology.
  Single most reliable indicator of the existence and intensity of pain is the individual’s self report
- To identify impact of pain on function and quality of life

AGS Guidelines (2009)
General Principles of Assessment

- Best indicator of pain is self-report
- Evaluate pain intensity, effects on function
- Conduct thorough initial assessment to identify treatable contributing factors
- Consider interdisciplinary approach
- Collaborate with patient to establish comfort goals

(AGS Persistent Pain Guidelines JAGS, 2009, 57(8), 1331-1346)
Pain Measurement
Gold Standard:

Self-Report

“Pain is whatever the patient says it is, ....”
McCaffery 1968

General questioning about pain and related words

Ability to Self Report Pain in Dementia

![Graph showing percentage of able to give reliable report across levels of cognitive impairment (higher CPS → higher impairment)]
Importance of Pain Assessment Dimensions in Palliative Care

- Intensity
- Temporal Pattern
- Treatment and Exacerbating/relieving factors
- Location
- Pain Interference

(Holen et al, JPSM, 32, 2006)

Identifying and Measuring Pain in Mild-Moderate Cognitive Impairment (CI)

- Use of simple standardized pain scales in CI
  - NRS & VDS strong and preferred
    - 4 point VDS (Closs et al., JPSM, 2004; 27:196-205)
- Study of 153 NH residents in 4 NHs
  - 60% able to complete self-report (Cohen-Mansfield, 2008; Alz Dis Assoc Disord; 22; 86)
Numeric Rating Scale

Numerical Rating Scale (Gagliese et al., 2005; Herr et al., 2007; Peters et al., 2007; Wood et al., 2010)

Verbal Descriptor Scales

<table>
<thead>
<tr>
<th>Verbal Descriptor Scale (VDS)</th>
<th>McGill Present Pain Inventory (PPI)</th>
<th>Simple VDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ Most Intense Pain</td>
<td>0 = No pain</td>
<td>0 = None</td>
</tr>
<tr>
<td>___ Imaginable</td>
<td>1 = Mild</td>
<td>1 = Mild</td>
</tr>
<tr>
<td>___ Very Severe Pain</td>
<td>2 = Discomforting</td>
<td>2 = Moderate</td>
</tr>
<tr>
<td>___ Severe Pain</td>
<td>3 = Distressing</td>
<td>3 = Severe</td>
</tr>
<tr>
<td>___ Moderate Pain</td>
<td>4 = Horrible</td>
<td>(Closs et al., 2004)</td>
</tr>
<tr>
<td>___ Mild Pain</td>
<td>5 = Excruciating</td>
<td></td>
</tr>
<tr>
<td>___ Slight Pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>___ No Pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Herr et al., 2004, 2007)

(Melzack & Katz, 1992; Gagliese et al., 2005)

NOTE: Core outcome domains for chronic pain clinical trials: IMMPACT recommendations. Pain, 2003;106:337-345. Recommends 4-point VDS for cognitively impaired
Pain Thermometer

- Pain as bad as it could be
- Extreme pain
- Severe pain
- Moderate pain
- Mild pain
- Slight pain
- No pain

(Herr and Mobily, 1993)

Iowa Pain Thermometer

(Herr et al., Pain Medicine, 8, 2007)

If individual is unable to report pain on a standard Numeric Rating Scale (NRS), try alternate pain scales
- Iowa Pain Thermometer
- Faces Pain Scale

Revised-Faces Pain Scale (R-FPS)
(Hicks et al., 2001)

- FPS validity in Caucasian older adults (Herr et al., 2004; 2007; Kim & Buschmann, 2006)

- FPS-r preferred by African American, Hispanics and Chinese Older Adults

Are Tools Directly Comparable?
(Jones et al., Journal of Rehabilitation Research and Development, 44, 2007)
Is Self Report Reliable in Cognitively Impaired Older Adults?

- No scale of cognitive functioning (e.g. MMSE, DRS) can validate inability to self-report pain

- Determining reliability
  - Pain Screening Tool (Buffum, Miaskowski & Sands, 2001)
  - “Recall worst pain you’ve ever had…”
  - “Imagine someone experiencing very severe pain…”
  - Assess logic of worst, least, now (Ersek PI)

- Asking about current pain most reliable

Determining pain type in nonverbal patient

- No qualitative descriptors
- Difficult to examine
  - Inspect for signs of inflammation or trophic changes
  - Palpate to map pain
  - Neuro exam—alldynia, hyperalgesia, hyperpathia
  - MS exam
    - Spine inspection, ROM, movement-induced pain
    - Strength, tone, girth
  - Lab work—only if indicated

Hadjistavropoulos et al., 2007, Clin J Pain, 1
Pain Impact: Quality of Life

- **Effect of pain on function**
  - ability to engage in normal activities
  - sleep, appetite, energy, movement/exercise, watch TV, sexual activity
  - interference with mood (depression/anxiety)
  - ability to interact with others, participate in social activities
  - cognitive ability

- **Monitor through standard function scales, MDS scales, pain impact scales**
  
  (APS, 2008)

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**Brief Pain Inventory (BPI)**

(Cleeland & Ryan, 1994  
Kapstad, Rokne & Stavem, 2010)
What about the older adult with severe cognitive impairment?

Pain in Dementia: A Puzzle

Herr, K.
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


Self-Report

- Attempts should be made to obtain self-report of pain from all patients
  - Standard scale
  - Yes/no
  - Finger span
  - Head nod

- Explain/document why self-report cannot be used and further investigation and observation are needed.

(Herr et al., ASPMN Task Force Position Statement, 2011)
Search for Potential Causes of Pain

- Pathological conditions and common problems or procedures known to cause pain
  
  ➔ (e.g. surgery, wound care, rehabilitation activities, positioning/turning, blood draws, heel sticks; a history of persistent pain)

- Assume Pain is Present (APP) if there is reason to suspect pain.

- Other problems that may be causing discomfort should be ruled out or treated (e.g. infection, constipation).

(Herr et al., ASPMN Task Force Position Statement, 2011)

Physiological indicators

- ↑ HR, ↑BP, ↑RR, diaphoresis
  
  ➔ Once used to “verify” pain report

- Stress or pain? Discomfort or distress?

- Not valid indicator of chronic pain

- Only appropriate (if at all) for acute pain

- Blunted in pts with dementia

- Absence of VS changes DOES NOT indicate absence of pain

(Rainero et al., 2000)
Common Chronic Conditions 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

Neuropathic pain
- Central poststroke
- Herpes zoster
- Postherpetic neuralgia
- Trigeminal neuralgia
- Nutritional neuropathies
- Peripheral neuropathies
- Other Mixed:
  - myofascial pain,
  - fibromyalgia

Pain-related behaviors
- Direct immediate observation
- Changes in behavior from normal
- Observation at rest or during activity
- Presence (yes/no) v. pain intensity
- Different in cognitively impaired?

Assessing Cognitively Impaired Older Adults

Observe for less obvious behavioral indicators of pain

- Nonverbal cues/behaviors (*restlessness, guarding*):
  - Less obvious: rigid tense posture, fidgeting, increased pacing/rocking, gait/mobility changes such as limping, restricted movement

- Vocalizations (*moaning, groaning*):
  - Less obvious: grunting, chanting, calling out, noisy breathing, asking for help, verbally abusive, crying

- Facial expressions of pain (*grimacing, wincing*):
  - Less obvious: slight frown, rapid blinking, sad/frightened face, any distorted expression

*(Closs et al., 2005; Cohen-Mansfield & Creedon, 2002; Feldt et al. 1998; Feldt, 2000; Hadjistavropolous & Craig, 2002; Hadjistavropolous et al., 2000; Hurley et al. 1992; Manfredi et al., 2003; Marzinski, 1991; Simons and Malabar, 1995; Warden et al., 2003)*

Assessing Cognitively Impaired Older Adults

Observe for changes in usual daily activities/interactions/behaviors

**Changes in Interpersonal Interactions**
- Combative/aggressive
- Resisting care
- Decreased social interactions
- Socially inappropriate
- Disruptive
- Withdrawn

**Changes in Activity Patterns/Routines**
- Sudden cessation of common routines
- Increased wandering
- Difficulty sleeping
- Increase in rest periods
- Refusing food/appetite change

**Changes in Mental Status**
- Irritability or distress
- Increased confusion
- Agitation
- Crying/tears

*(AGS, 2002; AMDA, 1999; Buffum et al., 2001; Closs et al., 2005; Cohen-Mansfield & Creedon, 2002; Fuchs-Lacelle & Hadjistavropolous, 2004; Kovach et al. 1999)*
**Surrogate Reporting of Pain and Behavior/Activity Changes**

- **Physicians/nurses, family caregivers, nursing assistants**
  - Encourage participation
  - Familiarity is key
  - Judgments may not be accurate for pain severity

(Herr et al., ASPMN Task Force Position Statement, 2011)

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**Importance of Pain Behaviors**

(Shiga et al., JAGS, 2008)

- **Prospective observational study**
  - 46 intact and 40 impaired elders with CLBP
  - Taped structured activity and coded observations

- **Significant differences by pain status, cognitive status**
  - High pain levels: greater grimacing and guarding
  - Cognitively intact: fewer guarding and rubbing, more bracing
  - Facial grimacing highest frequency behavior in intact and those with mild to moderate cognitive impairment

IS FACIAL GRIMACING MOST SENSITIVE AND RELIABLE BEHAVIORAL INDICATOR OF PAIN?
What benefit is a pain behavior tool?

- Consistent evaluation of behavior
- Evaluate if behavior/pain is better or worse after treatment
- Document assessment consistently
- Communicates across provider and setting

(Herr et al., 2010, J Geron Nsg)

General Recommendations

(Herr et al., ASPMN Task Force Position Statement, 2011)

- Behavioral pain assessment tools
  - Tool appropriateness must be assessed
  - Score on a behavior tool NOT same as a pain intensity rating
    - Behaviors may increase with severity
    - But CANNOT determine mild, moderate or severe
  - Focus on the individual’s behavior and observe for changes with effective treatment
Is there a BEST nonverbal pain tool for global use?

- Critique of 17 nonverbal pain tools (Funded by The Mayday Fund)  [http://prc.coh.org/PAIN-NOA.htm](http://prc.coh.org/PAIN-NOA.htm)

- Reviews
  - Zwakhalen et al. (2006). BMC Geriatr, 6:3
  - Van Herk et al. (2007). Nurs Res, 56:34

- [www.GeriatricPain.org](http://www.geriatricpain.org)  
  (funded by The MayDay Fund, University of Iowa, RWJ Fellowship) 
  ➤ Best Practice Recommendations for Assessment, Pain Management, Education, Quality Improvement in NHs
Pain Assessment in Advanced Dementia Scale (PAINAD)

Warden, Hurley, Volicer, 2003

- Used to assess pain in older persons who have dementia or a cognitive impairment and a limited ability to communicate
- Useful for daily or as-needed (prn) use
- Short, simple to understand, easy to use with limited training
- Includes key pain behaviors of negative vocalizations, facial expressions, and body language.

### PAINAD Scale

(Warden, Hurley, Volicer, JAMDA, 2003)

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Breathing</strong></td>
<td>Normal</td>
<td>Occasional labored breathing</td>
<td>Noisy labored breathing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Short period of hyperventilation</td>
<td>Long period of hyperventilation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cheyne-stokes respirations</td>
</tr>
<tr>
<td><strong>Negative vocalization</strong></td>
<td>None</td>
<td>Occasional moan or groan</td>
<td>Repeated troubled calling out</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Low level of speech with a negative or disapproving quality</td>
<td>Loud moaning or groaning, Crying</td>
</tr>
<tr>
<td><strong>Facial expression</strong></td>
<td>Smiling or inexpressive</td>
<td>Sad, frightened, frown</td>
<td>Facial grimacing</td>
</tr>
<tr>
<td><strong>Body language</strong></td>
<td>Relaxed</td>
<td>Tense</td>
<td>Rigid, fists clenched</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distressed pacing</td>
<td>Knees pulled up,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fidgeting</td>
<td>Pulling or pushing away</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Striking out</td>
</tr>
<tr>
<td><strong>Consolability</strong></td>
<td>No need to console</td>
<td>Distracted or reassured by voice or touch</td>
<td>Unable to console, distract or reassure</td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Score</strong></td>
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</tbody>
</table>
PACSLAC (Pain Assessment Checklist for Seniors with Limited Ability to Communicate)

Fuchs-Lacelle & Hadjistavropolous, 2004

- PACSLAC incorporates a more comprehensive list of behaviors - 60 items (most on MDS 3.0)
- Less than 5 minutes
- Ongoing screen on a monthly or quarterly basis to identify person-specific behaviors related to pain

Tool can be obtained from thomas.hadjistavropoulos@uregina.ca

PACSLAC

(Pain Assessment Checklist for Seniors with Limited Ability to Communicate)

(Fuchs-Lacelle & Hadjistavropolous, 2004)

Facial expressions
Grimacing
Change in eyes
Frowning
Opening mouth
Creasing forehead
Clenching teeth
Wincing

Activity/body movements
Uncooperative/resistant to care
Guarding sore area
Fidgeting
Restless
Refusing medications
Stiff/rigid

Social/personality/Mood indicators
Physical aggression
Verbal aggression
Not wanting to be touched
Throwing things
Increased confusion
Upset
Agitated
Cranky/irritable

Physiological indicators/
Eating/Sleep/Vocal Behaviors
Pale face
Teary eyed
Sweating
Changes in appetite
Screaming/yelling
Moaning and groaning
Use of Behavioral Pain Tools

- Nonverbal pain behavior tools are only one aspect of a comprehensive ongoing pain assessment, does not eliminate the need for critical evaluation and decision-making.

- Establish procedure for assessing pain with behavior tool
  - Who will do it? When? How often?
  - What will be done with the scoring information?
  - Plan for follow-up evaluation?

- Document/record all scores in a location that is readily accessible by other health care providers.

MDS 3.0 New items

**Pain Assessment**
- Determine the presence of pain over the last 7 days
  - Does the resident report pain?
  - Determine intensity at its worst (using standard scale)
  - Duration/frequency in last 7 days
  - Nonverbal signs of pain?
  - Does the resident exhibit pain behaviors?
    - Nonverbal sounds (crying, whining, groaning, moaning)
    - Facial expressions
    - Bracing, guarding, rubbing, massaging body part
    - Restlessness, agitation, combative, fidgeting, pacing, withdrawn
    - Mental status changes (confusion, distress)
    - Change in interpersonal interactions

**Pain Management**
- Is resident on a pain management regimen?
Evaluation of Potential Pain Indicators

1. **Assure basic comfort needs met** (e.g. hunger, thirst, constipation, immobility)

2. **Determine presence of treatable etiology**
   A. History of painful conditions (e.g. OA, old fx, LBP, shingles, diabetes)
   B. Current health status (e.g. fall, UTI)
   C. Painful procedures (e.g. physical therapy)

3. **Other potential causes of behavior addressed** (e.g. overstimulation, confusion secondary to limited sight/hearing, environmental temperature, lack of touch/contact)

4. **Use nonpharmacologic comfort strategies**

5. **Attempt an analgesic trial**

   Assume pain is present unless proven otherwise

   See Algorithm in *Geriatrics at Your Fingertips* (2012)

---

Empiric Analgesic Trial (N=1)

- If in doubt, analgesic trial may be diagnostic
- Treat behavioral symptoms with pain medication first
  - Fewer side effects with analgesic of choice than with psychotropics
  - Psychotropics may sedate and obscure pain indicators, yet pain unrelieved
  - If pain treatment unsuccessful, can proceed to psych mgt
- Studies needed to guide approaches

---

(Cohen-Mansfield & Creedon, 2002; Feldt et al. 1998; Fisher et al., 2002; Gagliese & Melzack, 1997; Hadjistavropoulos et al., 2000; Herr et al. 1998; Kovach et al., 2001; Miller et al., 1996; Weiner et al., 1996)

(AMDA, 2009; Herr et al., 2011)
Analgesic Trial Studies

- **39 elders with dementia/agitated behavior** (Buffum et al., 2004)
  - RTC acetaminophen 500mg TID, 2 wk/placebo 2 wks
  - NS in pain (DS-DAT) or agitation (Cohen-Mansfield)

- **25 elders with advanced dementia/severe agitation** (Manfredi et al., 2003)
  - RTC: 4 wks placebo, 4 wks LA opioid; CMAI-outcome
  - NS < 85 yrs; 13 > 85 yrs: Sign. agitation--sedation controlled

- **25 NH residents mod-severe dementia** (Chibnall et al., 2005)
  - 4 weeks acetaminophen (3K/day), 4 weeks placebo
  - Increased social interaction, engaged with media, talking to themselves, engaged in work-like activity. Less time in room, removed from unit and performing personal care activities
  - No effects on agitation, emotional well-being, as-needed psychotropics

Assessment of Discomfort in Dementia (ADD) Protocol

(Kovach et al., 2001; Applied Nursing Research, 14(4), 193-200)

- **143 LTC residents mean MMSE 5.45**
- **Used ADD Protocol for 53% sample--161 protocols**

*Unmet need: restlessness, grimacing, aggression, crying, moaning, resisting care, exiting behavior*

<table>
<thead>
<tr>
<th>Step of Protocol</th>
<th>#Pts Using Step</th>
<th>% Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical assessment</td>
<td>156</td>
<td>3</td>
</tr>
<tr>
<td>2. History</td>
<td>130</td>
<td>8.5</td>
</tr>
<tr>
<td>3. Nonpharmacologic interventions</td>
<td>119</td>
<td>37</td>
</tr>
<tr>
<td>4. Analgesic</td>
<td>91</td>
<td>83.5</td>
</tr>
<tr>
<td>5. Psychotropic drugs or consult</td>
<td>26</td>
<td></td>
</tr>
</tbody>
</table>

(Kovach et al., 2001; Kovach, 2003)
Analgesic Trial Study: Stepped protocol

- 352 residents with moderate-severe dementia and significant behavioral disturbances (18 NHs in Norway) (Husebo et al., BMJ 2011; 343)
  - Stepwise protocol in RCT in 8 week trial with 4 week follow-up
- Protocol
  - 1. acetaminophen (up to 3Gm/day)
  - 2. morphine (max 20 mg/day)
  - 3. buprenorphine transdermal patch (max 10 micogms/hr)
  - 4. pregabaline (max 300 mg/day)
- Primary outcome: agitation significantly reduced (ave 17%); severity of neuropsych symptoms and pain
- No signif change in ADLs or cognition
- Majority responded to Step 1

Empirical Treatment Strategy

- Empiric treatment continues until pain ruled out or pain-causing condition removed

- If behaviors don’t respond to analgesic and non-drug tx
  - Reassess for other causes
  - Initiate geropsych consult
  - Explore pharmacologic agents for dementia-specific behaviors
Putting the Pieces Together
See Algorithm in Geriatrics at Your Fingertips (2012)

Self Report
- NRS
- VDS
- FPS

Potential Causes
- Physical exam and history
- Pathological conditions
- Common problems or procedures painful

Behavior Assessment
- Direct observation
- Surrogate reporting
- Screening vs Dx

Analgesic Trial
- Confirming suspicions

Establish a Procedure for Pain Assessment

- For evaluating pain presence and response to treatment in each health care setting

- Reassess regularly for improvement, deterioration, or complications
  - Use same tool and/or specific behaviors for follow-up. Monitor function, mental status, mood, sleep, etc.

- Communicate across care provider and care setting

Suggested Screening Approach

- **SCREENING** (all residents)
  - Admission to Nursing Facility to establish if resident has pain on admission to facility and guide treatment planning.
  - At each quarterly nursing review

- **ASSESSMENT** (patient’s with suspected pain)
  - If trigger for pain or problem with pain, use weekly
  - Use 1-2 hours following a pain intervention
  - Each time a change in patient behavior is noted

We Must Be Vigilant to Improve Pain In Cognitively Impaired

- Good Assessment is Key
  - Always observant for possible pain indicators
  - Validate pain etiology, if possible

- Follow recommendations for pain management in older adults
- Reassess for changes and response to treatment
Case of Mr. Long

- 90 yr male late-stage Alzheimer’s Disease onset 8 yrs ago
  - NH x 3 yr
  - Fall 2 mo ago—negative x-ray
  - MMSE 10
  - Increasingly withdrawn, restless, eating less with 10 lb loss, unable to participate in activities/care
  - Yells at nursing staff when approached; biting/hitting during am cares/transfers
  - Sad, frowning expression, eyes tightly closed when moved

Mr. Long Continued

- Medical Hx: HTN, CHF, DM II, PVD, Osteo, seizure disorder, old fx L3, 4, 5
- Surgical Hx: None
- ROS: No bm x 5 days; weight loss 10 lb; communicative
- Medications: loop diuretic, beta blocker, glyburide, carbamazepine, naproxyn PRN, aspercreme PRN
- Phys Exam: VS stable, unable to exam due to combative behavior
Thoughts on Mr. Long’s Behaviors

- Alzheimer’s Disease
- Pain?
  - OA
  - Old fractures
  - PVD
  - Recent trauma
  - Peripheral neuropathy
  - Positional discomfort
  - Chronic severe constipation

Is Mr. Long in Pain?

- Patient report: unable to report pain
- Potential causes of pain (acute and chronic): list
- Pain behaviors: list or PAINAD= 7/10; PACSLAC= 19/60
- Surrogate report and behavior change: staff note behavior change
- Response to analgesic trial: none tried yet
Analgesic Trial (n=1)

- Started acetaminophen 1000mg q6 x 48 hr
  - no change in behavior (PAINAD=6/10; PACSLAC=18/60
  - NSAIDS risk d/t age, frailty, cardiac disease, GI risk
  - Tramadol not option d/t seizure hx

- Started hydrocodone 5mg/500 q 8 ATC
  - Behavior improved. Sleepy x 24 hr, arousable and R > 10
  - After 48 h, less frowning, no yelling or combativeness, eating, sleeping longer at night, not resisting transfers
  - PAINAD=2/10; PACSLAC=4/60

Pain Assessment in CI

A Challenge: yes

Impossibility: no
## Comprehensive Pain Management: Interdisciplinary Care

<table>
<thead>
<tr>
<th>Patient with family/surrogate</th>
<th>Pharmacologic and Nonpharmacologic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct caregivers</td>
<td>Improve the quality/frequency of assessments</td>
</tr>
<tr>
<td>Nursing supervisors</td>
<td>Optimize use of non-drug with analgesic treatment</td>
</tr>
<tr>
<td>Therapists</td>
<td>Improve optimal use of analgesics</td>
</tr>
<tr>
<td>Social worker</td>
<td>Assist in minimizing analgesic ADRs</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>Document outcomes associated with treatment</td>
</tr>
<tr>
<td>Consultant pharmacist</td>
<td></td>
</tr>
<tr>
<td>Physician/midlevel provider</td>
<td></td>
</tr>
</tbody>
</table>
Pain and Aging: Goals of Care

- Determine patient's pain management priorities
  - comfort
  - activity and functional capacities
  - improved sleep
  - interpersonal/social interactions
  - reduction in pain-related mood disorders (e.g., anxiety, depression)
- Balance risks and benefits of treatment options in relation to goals
- Reconcile goals and range of treatment options
- Monitor both pain score and function and treat to function


Treatment Considerations for Chronic Pain in Older Adults

Goal: Optimal Pain Relief

Patient Values & Preferences

Safety
Efficacy
Function/QOL

Risks
Tolerability
Patient Characteristics

Herr, K.
**Risk Continuum of Pain Therapy**

<table>
<thead>
<tr>
<th>Level of Risk*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most invasive</td>
</tr>
<tr>
<td>Interventional techniques</td>
</tr>
<tr>
<td>Oral medications</td>
</tr>
<tr>
<td>Topical medications</td>
</tr>
<tr>
<td>Psychologic/ physical approaches</td>
</tr>
<tr>
<td>Least invasive</td>
</tr>
</tbody>
</table>

*Continuum unrelated to efficacy.

**Major Categories of Pain: Nociceptive**

**Nociceptive (Somatic)**
- **Sources:** injury to cutaneous & deep musculoskeletal tissues
- **Examples:** arthritis, bone mets
- **Location:** well-localized; superficial and deep
- **Character:** dull, achning, throbbing, tender, sore, stabbing
- **Treatment:** Responds to NSAIDS, opioids, steroids

(APS, 2005; Coyle, 2006; Reuben et al., 2007)

**Nociceptive (Visceral)**
- **Source:** infiltration, compression, distention, stretching of abdominal or thoracic viscera
- **Examples:** liver mets; pancreatic CA
- **Location:** poorly localized; often referred to cutaneous sites
- **Character:** deep, squeezing pressure, cramping, gnawing, stabbing, aching, dull (may be associated with N/V, diaphoresis)
- **Treatment:** Responds to NSAIDS, opioids, steroids

Herr, K.
Major Categories of Pain: Neuropathic

- **Source:** injury to peripheral nerve or CNS pathology; tumor infiltration and compression on peripheral nerves, nerve roots or spinal cord; chemo or radiation-induced injury
- **Examples:** metastatic brachial or lumbosacral plexopathy; epidural or spinal compression; chemo-induced neuropathy; postherpetic neuralgia, diabetic neuropathy
- **Character:** shooting, sharp, burning, electric; (also allodynia; hyperalgesia)
- **Treatment:** opioids, adjuvants (antidepressants, anticonvulsants)

(APS, 2005; Coyle, 2006; Reuben et al., 2007)

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Common Pain Conditions in Older Adults

- Osteoporosis
- Coronary artery disease
- Migraine
- Spinal stenosis
- Postherpetic neuralgia
- Herpes zoster
- Polyneuropathy (diabetic, HIV)

**Nociceptive Pain**
- Sharp/dull/aching

**Mixed Type**
- Complex regional pain syndrome
- Central post-stroke

**Neuropathic Pain**
- Burning/tingling/pricking

Previous fractures
Arthritis DJD/RA
Fibromyalgia
Neuropathic low back pain
Trigeminal neuralgia

Treatment of Pain in Older Adults with Dementia

- All patients with functional impairment or diminished quality of life as a result of persistent pain are candidates for
  - nonpharmacologic pain management strategies
  - pharmacologic therapy

- Integrate Nonpharmacologic and Pharmacologic Strategies
  - Age is not a factor in successful use of many techniques
  - Support of interventions in dementia limited

(AGS Panel on Persistent Pain in Older Persons, 2009, JAGS)

Nonpharmacologic Therapies

- Integrate systematically in a multimodal approach
  - useful for all types of pain
  - may be effective alone for some types of pain or low-intensity pain ratings (<4/10)

- Assessment is key
  - what has been used in the past?
  - has it been successful? If not, why not?
  - what is the individual willing to try next?

- Some complementary therapies not covered by insurance
  - Willing and able to pay out of pocket?

Courtesy of American Pain Foundation.
Pain in LTC

Nondrug Interventions

- Physical
  - Exercise/Physical Tx
  - Cold/heat
  - Massage
  - Vibration
  - TENS
  - Positioning
  - Whirlpool
  - Acupressure/ Acupuncture
  - Liniments
  - Assistive devices

- Cognitive/Psychosocial
  - Education
  - Talking/Listening
  - Relaxation
  - Imagery
  - Meditation/Prayer
  - Deep breathing
  - Distraction
  - Humor
  - Peer Support Groups
  - Pastoral counseling

(Bruckenthal, 2010; McCauley et al, 2008) Morone & Greco, 2007; Karp et al., 2008; Reid et al, 2008)

Challenges

- Resistance from family and patients
- Myths about pain
- Time constraints
- Lack of effectiveness
- “Untrained” use
- Use of nondrug therapies as a replacement for analgesics
Advantages of non-drug interventions

- Enhanced sense of control – patients and families
- Provides opportunity for caregivers and patients to interact
- Creates memories for family caregivers
- Many are inexpensive to implement

Assessment Prior to Starting Therapy

- Understanding of options
- Attitude and comfort
- Family interest and availability
- Need for education
- Ability to participate
Comfort Measures for Older Adults with Dementia

- **Distraction**—TV, music, storytelling
- **Relaxation**—massage, music, touch, warmth
- **Cold/Heat**—caution skin damage
- **Repositioning**—comfort/body alignment
- **Movement/exercise**—glider rockers, hand activity
- **Sensory stimulation**—pet therapy, music, gardening, folding warm clothes
- **Cognitive therapy**—reminiscing, reading, visiting

(McDonald & Sterling, 1998; Kovach et al., 1999)

Resources for Family Caregivers

American Geriatrics Society via Health in Aging website (downloadable resources)

www.healthinaging.org/public_education/pain/index.php

- Assessing Pain in your Loved One with Dementia
- Medications for Persistent Pain
- My Pain Diary
Building a Toolkit

AGS Guidelines (2009)
General Principles of Pharmacologic Treatment

- Use least invasive method first
- Initiate analgesics at low doses; titrate based on pain relief, adverse effects
- Match timing of drug administration to pain characteristics
- Consider nonpharmacologic intervention
- In multidrug therapy, consider agents with complementary MOAs

AGS Persistent Pain Guidelines, 2009; JAGS, 57(8), 1331-1346

Herr, K.
Barriers to Pain Management

Multidrug Regimens
- Comorbidities
- Drug-drug interactions
- Compliance issues

Cognitive Impairment
- Dementia
- Consent for treatment

Opiophobia
- Fear of addiction and side effects

Physiologic Changes
- Frailty
- Effect on analgesia
- Comorbidities


General Principles of Pharmacologic Management in Older Adults

- Older adults more susceptible to adverse drug reactions
- Start at lowest anticipated effective dose and titrate thoughtfully
- Greater reductions in pain combining pharmacologic and non-pharmacologic treatments
- Positive outcomes can be maximized
  - knowledgeable about pharmacology
  - monitor for side effects
- Unrealistic to expect complete absence of pain
General Principles Cont…

- Choose drug with short half-life when initiating therapy
- Prescribe one drug at a time
- Begin with low dose and titrate
- Be aware of additive effects
- Prevent side effects when possible
- Continue drug trials for adequate periods
- Long acting analgesics in stable pain beneficial

Aging and Pharmacotherapy

- What changes as we age?
  - ↓ body composition (fat/muscle)
  - ↓ gastrointestinal (GI) motility
  - ↓ hepatic metabolism
  - ↓ renal clearance
  - ↓ protein binding
  - ↑ CNS sensitivity to noxious stimuli and medication effects

- Remember: aging influences both
  - pharmacokinetics = what the body does to the drug (absorption, distribution, metabolism, excretion)
  - pharmacodynamics = what the drug does to the body/mind (side effects)

- Results in higher peak levels and longer duration of action

Organ System Changes in Older Patient Affect Pharmacodynamics

<table>
<thead>
<tr>
<th>Pain Medications</th>
<th>GI</th>
<th>Renal</th>
<th>Cardiac</th>
<th>CNS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tramadol</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Opioids</td>
<td>+</td>
<td>–</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Local anesthetics (systemic)</td>
<td>–</td>
<td>–</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Local anesthetics (topical)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>Antidepressants</td>
<td>+</td>
<td>–</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Anticonvulsants</td>
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<td>–</td>
<td>+</td>
<td>+</td>
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<tr>
<td>COX-2s</td>
<td>+/-</td>
<td>+</td>
<td>+</td>
<td>+</td>
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<tr>
<td>NSAIDs</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Some drugs potentially inappropriate in older patients: propoxyphene, meperidine, naproxen, indomethacin, diazepam, alprazolam

GI = gastrointestinal; CNS = central nervous system; COX-2 = cyclooxygenase-2; NSAID = nonsteroidal anti-inflammatory drug.

**ACETAMINOPHEN (APAP)**

- First line therapy if mild-moderate pain
  - Particularly musculoskeletal pain
- Warrants caution
  - liver insufficiency
  - chronic alcohol abuse/dependence
- Caution: max daily dose (ALL SOURCES) = 4000 mg/d; 1500-2000 mg in frail elders or renal or hepatic impairment
- Used with opioids can allow lower opioid dosing
- Collect info on OTC

(AGS, 2009; APS, 2008)
NSAID Risks for Older Adults

- 23.5% drug related hospital admissions in >65 yr d/t NSAIDs
- Drowsiness, confusion, dizziness (~ falls)
- Nausea, vomiting
- Gastritis, GI bleeding (often silent)
  → 5X greater risk >70 years old
- Nephrotoxicity and cardiovascular risk
- Hepatotoxicity with acetaminophen
- Drug-drug interactions


Cautious Use of NSAIDS in Older Adults

- If APAP ineffective @ maximum ATC dose
- Evaluate risk profile for NSAID
  → Use with extreme caution in highly selected patients
  → Contraindicated: active PUD, chronic kidney disease, heart failure
  → Caution: HTN, H.pylori, hx PUD, concomitant use of steroids or SSRIs
  → Ibuprofen with no GI, CV, renal risk
  → Naproxen with cardioprotective ASA, no GI Hx
  → Consider nonacetylated salicylates (trilisate, disalcid)
- Gastroprotection with PPI or misoprostol
- Avoid more than one NSAID at time
- Use NSAIDs @ lowest dose; shortest time
- Routinely assess for GI, renal, HTN, HF, drug-drug, drug-disease interactions

(AGS Persistent Pain Panel, JAGS, 2009; 57:1331-1346)
Cox-2 Selective NSAIDs

- **COX-2 inhibitors**—careful evaluation of risks/benefits
  - **Benefits**
    - Clinical efficacy similar to nonselective NSAIDs
    - Less GI toxicity but irritation and bleeding can still occur
    - Does not adversely affect platelet function
  - **Risks**
    - Does not spare renal system
    - Risk of Cardiovascular toxicity (Hx MI, HTN, HF)

Consider COX-2 NSAID (celecoxib) if hx GI bleed & low CV risk

AGS Persistent Pain Panel, JAGS, 2009; 57:1331-1346

Topical NSAIDs

- Higher concentration @ target tissue
- Lower concentration distant areas
- High level patient acceptance
- Better when pain is localized
- Fewer GI side effects than oral
  - More likely in patients with Hx GI side effects

**Current Options:** diclofenac gel, patch, gtts

Safer Adjuvants for Older Adults

- Patients with neuropathic pain, fibromyalgia, refractory persistent pain
- Adjuvants/Coanalgesics: TCA, depressants (cautious use)
  - TCAs: best evidence, but unacceptable side effects
  - Best: desipramine, nortriptyline
  - SNRIs good efficacy, safer, watch drug interaction
  - Duloxetine, venlafaxine
- Anticonvulsants (cautious use)
  - Gabapentin good efficacy (high doses), side effects
  - Pregabalin equally effective, ~better tolerated
  - Favorable safety profile compared with older options
- Topical agents (menthol, methylsalicylate, capsaicin, lidocaine)

Opioids for Persistent Pain

- Candidate:
  - Persistent mod-severe pain, pain-related functional impairment, or diminished quality of life due to pain
  - Severe pain requiring rapid relief
  - Patient characteristics contraindicate use of other analgesics
- LT effectiveness for noncancer pain in older adults lacking
  - Benefit demonstrated 6 weeks OA (Corsinovi et al., 2009)
  - Base on potential efficacy and risks compared with other treatments
  - Consider harms of unrelieved pain
  - Consider adverse effects (AGS, 2009; Chou et al., 2009)
**Opioids**

- Morphine
- Oxycodone
- Hydromorphone
- Fentanyl
- Oxymorphone
- Hydrocodone
- Codeine
- Oral
- Rectal
- Intravenous - PCA
- Subcutaneous
- Epidural - PCEA
- Intrathecal
- Transdermal
- Buccal
- Intramuscular

**Pain Medications to Avoid in Older Adults**
*(AGS Beers Update, 2012, JAGS)*

- Meperidine—**AVOID**
- Non-Cox-selective NSAIDS, oral—**AVOID**
  **CHRONIC USE** unless alternatives not effective and pt can take PPI or misoprostol
- Indomethacin—**AVOID**
- Ketorolac—**AVOID**
- Pentazocine—**AVOID**
- Skeletal muscle relaxants—**AVOID**
Extended-release preparations

- Improves adherence
- Dose q 8, 12, or 24 h (product specific)
  - don't crush or chew tablets
  - may flush time-release granules down feeding tubes
- Adjust dose q 2–4 days (once steady state reached)

Opioid Dose Escalation

Always increase by a percentage of the present dose based upon patient's pain rating and current assessment

- 25% increase
  - Mild pain 1-3/10

- 25-50% increase
  - Moderate pain 4-6/10

- 50-100% increase
  - Severe pain 7-10/10

GO SLOW
Tramadol

- A synthetic non-opioid analog of codeine with complex pharmacology: among other actions, it is a mu-opioid-receptor agonist
- Analgesic effect roughly equivalent to Tylenol #3®
- Side effects similar to opioids—nausea, confusion, dizziness, constipation
- Caution in those on SSRIs (serotonin crisis)
- Contraindicated if seizure history
- Maximum dose 400mg daily

Opioid adverse effects

<table>
<thead>
<tr>
<th>Common</th>
<th>Uncommon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constipation</td>
<td>Bad dreams / hallucinations</td>
</tr>
<tr>
<td>Dry mouth</td>
<td>Dysphoria / delirium</td>
</tr>
<tr>
<td>Nausea / vomiting</td>
<td>Myoclonus / seizures</td>
</tr>
<tr>
<td>Sedation</td>
<td>Pruritus / urticaria</td>
</tr>
<tr>
<td>Sweats</td>
<td>Respiratory depression</td>
</tr>
<tr>
<td></td>
<td>Urinary retention</td>
</tr>
<tr>
<td></td>
<td>Hypogonadism</td>
</tr>
<tr>
<td></td>
<td>SIADH</td>
</tr>
</tbody>
</table>
Most Common Adverse Drug Events With Aging

- Constipation
  - Does not resolve; use prophylactic bowel regimen
    - Avoid bulking agents; encourage fluids
    - Stimulant—senna, bisacodyl, lactulose

- Sedation
  - Tolerance develops—usually clear 1-3 days
    - If persists, decrease opioid dose or add psychostimulant (e.g., methylphenidate)

- Nausea/vomiting
  - Tolerance develops 3-5 days
    - In interim, antiemetics can be used (e.g., metoclopramide)

- Confusion
  - Evaluate cause; decrease/switch opioid

(AGS, 2009; AMDA, 2009)

Summary of Treatment Recommendations

- Treating pain in older pts—unique challenges
  - Use APAP first-line therapy
  - Use NSAIDS rarely and with extreme caution
  - Consider opioids for moderate to severe pain
  - Consider adjuvants for neuropathic pain
  - Consider topical agents for localized pain

- Apply guidelines but individualize treatment
  - Minimize PRN analgesic use in Cog Impaired

- Integrate nonpharmacologic approaches
- Expert consultation/pharmacy
- Patient/family education

AGS, 2009, JAGS
Mrs. Hall, 80 year old female with advanced Alzheimer’s disease, FAST 7. Bedridden, nonresponsive to verbal queries, unable to complete ADLs. In ALF and for past 4 months in hospice care.

History: osteoarthritis, HTN, UTI

Presents in fetal position, moaning, frowns and earnest expression on face, refusing food and drink.

Recently exhibiting large amounts blood in urine.

Suspected cancer, but not pursued because of hospice status

Pt become very frightened and agitated

Family pressed hospice for nonoral pain medication

ALF staff and other children resisted--assured by aid that semi-comatose people could not feel pain

Family pressure obtained transdermal fentanyl patch 12.5 mcg

Within 3 days, pt started slowly “coming back”, communicating again, more alert each day, appetite back, smiles returned, sense of humor returned

Asked for a burger--ate cut up burger and fries using her own hands!
Case Study 2

- James is a 91 year old male with admitting diagnosis of Psychosis and Advanced Dementia
- H & P: arthritis, UTI, thrush, severe osteoporosis of spine with compression fractures, multiple bruises
- Unable to verbalize or rate pain. Noted agitation, hitting, crying out constantly, inconsolable, rigidity and screaming when touched (change from baseline and 3 week deterioration)
- Transferred to geropsych unit for behavior mgt

Case Study 2

- Continued antipsychotic, antidepressant, hypnotics from LTCF--Antibiotics for UTI, thrush. Behaviors continued.
- Nonpharmacologic interventions attempted (e.g. repositioning, low-stimuli environment, verbal redirection, group sessions) with no change.
- Refusing/spitting oral medications. Acetaminophen 500mg R, then 1000mg with no improvement, MS 5 mg suppository resulted in observation of calming, sleeping, decreased agitation, no screaming.
- After 2 days of ATC MS, patient was eating, not resisting care and sitting during group time. Meds were changes to oral MS Contin15mg q 12 hrs.
Guidelines and Position Statements on Pain in Older Adults

Herr, K.
National Pain Collaborative

● Goal: Addressing gap in best practice tools, resources & products to assist nursing home staff:
  ➔ achieve expectations of the process frameworks being developed by Campaign to Advance Excellence
  ➔ provide quality pain care in nursing homes

● Part of the STTI Center for Nursing Excellence in Long-Term Care™

● Primary funding from The Mayday Fund

Phase I: Outcomes

● Nonverbal pain tool critiques-City of Hope Pain Resource Center website (http://prc.coh.org) updated Oct 2008

● Improving the Process of Pain Care in Nursing Homes: A Literature Synthesis

● Use of Pain-Behavioral Assessment Tools in the Nursing home: Expert Consensus Recommendations for Practice

● GeriatricPain.org is a user-friendly web resource providing a one-stop option for evidence-based geriatric pain resources for LTC launched in Nov 2009
Geriatric Pain

Herr, K.

Site includes resources/documents divided into 6 main categories to assist in ease of use:

- Pain Assessment
- Pain Management
- Education
- Quality Improvement
- Resources
- MDS 3.0
Pain Assessment

- First step in assuring quality pain care is good & appropriate pain assessment

- The section provides:
  - Core principles of pain assessment
  - Recommendations for effective pain assessment
  - Tools for assessing pain in cognitively intact and cognitively impaired older adults

Pain Assessment-Example

Recommendations for Assessing Pain in Cognitively Intact Older Adults

1. Take into account the older adult’s history, interview information and results of physical examinations.
2. Determine the presence of any sensory (e.g., hearing, eyesight) deficits and check sensory assistive devices (e.g., hearing aids) to make sure that they are working properly.
3. Make adjustments to accommodate the older adults’ sensory deficits (e.g., provide written and oral instruction, use enlarged type and bold figures, and ensure adequate lighting).
4. Determine ability to complete the pain interview and to use available pain scales.

Pain Assessment-Example

Pain Assessment-Example

Pain Assessment IN Advanced Dementia- PAINAD (Warden, Hurley, Volicer, 2003)

<table>
<thead>
<tr>
<th>ITEMS</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>vocalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>None</td>
<td>Occasional moan or groan. Low level of speech with a negative or disapproving quality</td>
<td>Repeated troubled calling out. Loud moaning or groaning. Crying</td>
<td></td>
</tr>
<tr>
<td>vocalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial expression</td>
<td>Smiling or</td>
<td>Sad, frightened, from</td>
<td>Facial grimacing</td>
<td></td>
</tr>
<tr>
<td>inexpressive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolability</td>
<td>No need to console</td>
<td>Distracted or reassured by voice or touch</td>
<td>Unable to console, distract or reassure</td>
<td></td>
</tr>
</tbody>
</table>

* 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”).
Pain Assessment-Example

**Pain Assessment IN Advanced Dementia- PAINAD**

**Purpose**
This pain behavior tool is used to assess pain in older adults who have dementia or other cognitive impairment and are unable to reliably communicate their pain. It can be used by a nurse or by a CNA to screen for pain-related behaviors.

**When to Use**
1) At admission
2) At each quarterly nursing review
3) Every shift - in older adults with behaviors suggesting pain is not controlled
4) Each time a change in pain status is reported
5) Following a pain intervention to evaluate treatment effectiveness (within 1-2 hours)

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Pain Management

- Planning and implementing effective plan of care for pain in older adults requires knowledge and interdisciplinary team involvement.

- This section provides:
  - Terminology
  - Key principles for pain management
  - Tools for documenting and communicating
  - Tools for communicating with prescribers
## Pain Management-Example

### Side Effects of Medications and General Approaches to Management

**General Consideration for Side Effects Management**

### For Opioids

- Decrease dose of analgesic
- Lower the dose and add an analgesic from another class
- Switch to different analgesic in the same class
- Add a medication to treat the side effects

### For Co-Analgesics

- Start slow and go slow

<table>
<thead>
<tr>
<th>Side Effects</th>
<th>Management/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNS: Drowsiness</td>
<td>Generally resolves within 72 hours of initiating new pain medication. If persists and other correctable causes identified and treated, psychostimulants may be beneficial. Adjust dose and timing to avoid nocturnal insomnia and monitor for psychotomimetic effects (e.g. hallucinations, agitation, irritability)</td>
</tr>
<tr>
<td></td>
<td>- Dextroamphetamine 2.5-5 mg PO q am and midday</td>
</tr>
<tr>
<td></td>
<td>- Methylphenidate 5-10 mg PO q am and 2.5-5mg PO midday</td>
</tr>
<tr>
<td>CNS: Respiratory Depression</td>
<td>Common fear, but actually very rare. When depressed consciousness along with RR less than 8/min associated with opioid use, slow, cautious titration of naloxone should be instituted (0.02 mg q 2-3 minutes while providing respiratory support and supplemental oxygen). Caution abrupt opioid reversal with pain and autonomic crisis</td>
</tr>
</tbody>
</table>

## Pain Management-Example

### Nondrug Pain and Symptom Management

**RELAXATION** – a state or condition of being free from anxiety and muscle tension. Relieves pain by:

- Loosening tense muscles
- Distracting patient from pain and other symptoms
- Decreasing stress
- Helping to cope

Relaxation techniques:

- Deep breathing
- Listening to music
- Thinking of peaceful images
- Repeating the same word or phrase over and over
- Meditation

Encourage patient to get a relaxation tape or CD, along with a player and headphones, so that he can use the technique on a daily basis.

**NOTE:** The RN or CNA should only administer non-drug therapies that are within his/her particular scope of practice. Please follow the policies and procedures of your facility regarding administration of non-drug therapies.

Adapted from: Beth Miller-Kraybill, Nondrug Pain & Symptom Management in Nursing Assistant End-of-Life: Computerized Educational Program.

Used with permission of Mary Ersek & HPNA (2009).
## Pain Management-Example

### Putting the Serial Trial Intervention (STI) into Practice

#### Behavior Change Identification

For the entire process to begin there needs to be something that triggers it. Since people with middle to late stage dementia often cannot verbalize their needs, the trigger is usually a change in behavior.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td>Physical: Begin with a physical assessment to look for physical causes of discomfort. If a problem is identified, appropriate treatment(s) are initiated that target the identified problem. If the behavior continues, or if there was a negative physical assessment, proceed to Step 2.</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td>Affective: Conduct an affective needs assessment. If you identify a problem, initiate appropriate treatment(s) that target the identified problem. If the behavior continues, or if there was a negative affective assessment, proceed to Step 3.</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td>Trial of Non-Pharmacological Comfort Treatments: Trial a series of non-pharmacological comfort treatments. If they are ineffective, proceed to Step 4.</td>
</tr>
<tr>
<td><strong>Step 4</strong></td>
<td>Trial of Analgesics: Trial a prescribed PRN analgesic. If it is ineffective, proceed to Step 5.</td>
</tr>
<tr>
<td><strong>Step 5</strong></td>
<td>Consultation or Trial of Psychotropics: If consultation is ineffective, repeat the consult or trial a prescribed PRN psychotropic. If the behavior still continues, repeat the STI.</td>
</tr>
</tbody>
</table>

Developed by Christine R. Kovach, PhD, RN, FAAN, University of Wisconsin-Milwaukee

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### Pain Management-Example

#### Pain Management Communication

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Physician/ARNP Name:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Patient Name:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>DOB:</strong></td>
<td></td>
</tr>
</tbody>
</table>

- Cognitively Impaired? (check if yes)
- Observed Behaviors:
  - Whining
  - "Ouch"
  - Wincing
  - Bracing
  - Gasping
  - "That hurts"
  - Wrinkled forehead
  - Guarding
  - Furrowed brow
  - Rubbing body part/area
  - Clenched jaw
  - Clutching/holding body part/area during movement
  - Guarding
  - Other:

- **Pain Intensity:**
  - **(Before meds):**
  - **(After meds):**

- **Standard pain scale used:**
  - Numeric Rating Scale (0-10)
  - Verbal Descriptor Scale (no pain, mild pain, moderate pain, severe pain, extreme pain, pain as bad as could be)
  - Faces Pain Scale
  - PAINAD; score: 
  - Other:

Herr, K.
Abdominal Pain

Definition: Sudden, abrupt onset of abdominal pain that may or may not be associated with nausea and vomiting.

Discussion: Older adults with acute abdominal pain are at high risk for serious illness and require careful evaluation. Older adults are more difficult to diagnose. Various medications and lack of normal physiologic responses (fever, tachycardia may be absent despite infection or dehydration) make evaluation more challenging. Confusion, poor hearing and vision may also make exams more difficult. Certain co-morbidities may confuse or hide the appearance of symptoms. Older adults respond differently to physiologic processes. Accurate and timely assessment and communication from the nurse is essential to help the physician determine the appropriate action.

Physical Exam: At minimum, nurses should listen to each quadrant for bowel sounds then palpate the abdomen to determine if there is pain and where it is located. During palpation, feel for masses, swelling, or other abnormalities. Also, ask if pain is worse when pressing in or letting go. Include that description when reporting to practitioner.

Initial Nursing Care: Initial nursing care starts with good assessment. If patient has orders for symptomatic treatment for specific symptoms, initiate those treatments or administer medicines. Frequently, initial treatments will be to keep patient NPO or hold tube feedings. Positioning may be helpful. Also, administer anti-emetics. Report symptoms to practitioner if not resolved in a reasonable timeframe.

Communication: (SBAR)

- Situation: What is happening at present time? Describe acute abdominal problem, specific symptoms such as presence of nausea or vomiting, last bowel movement, degree of pain, exact location, when the pain started, what you have done so far, has it changed?
- Background: What led up to this situation? Food intake (i.e., spicy) or lack of food, medications - particularly anything new, previous history of a similar event.
- Assessment or Appearance: Report physical exam results, vitals. If there was emesis or bowel movement, describe. What do you or the resident think is going on?
- Request: What do you think should be done to correct the problem? Meds, lab work or tests, monitor, other?
Education

- Enhancing knowledge of providers at all levels is an important step in addressing gaps in pain practice

- This section provides:
  - Resources for nurses
  - Resources for older adults and their families
  - Staff training resources

Education-Example

Geriatric Pain Fast Facts

# 101: The One Minute Pain Assessment

Did you know that, in about one minute, you can identify older adults who are experiencing pain?

Pain control is best achieved through good assessment. The following assessment may be completed in about 1 minute and quickly identifies older adults who may be experiencing pain regardless of cognitive status or verbal abilities.

If any of the following items are noted, pain may be an issue and should be investigated further. During the assessment, if an older adult uses a particular word to describe their pain continue to use that adjective when talking about their pain.

✓ 3 Pain Questions
- Do you have any aches or pains today?
- Can you tell me about your pain, aches, soreness or discomfort?
- Would you say your pain was mild, moderate or severe?
**Education-Example**

### Approaches for Addressing Specific Pain-related Barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Nursing Approaches</th>
</tr>
</thead>
</table>
| Fear of Addiction     | - Clarify the terms *addiction, physical dependence, and tolerance* (see below).
|                       | - Explain that addiction is uncommon in older adults taking opioids for pain.
|                       | - Assess the older adult's history of substance abuse using a direct, nonjudgmental approach.                                                        |
| Fear of Tolerance     | - Clarify the terms *addiction, physical dependence, and tolerance* (see below).
|                       | - Explain that tolerance is a normal physiologic response in people on chronic opioid therapy. Developing tolerance does not mean that the older adult is addicted.
|                       | - If tolerance does develop, the older adult medication may need to be changed. For example, morphine can be used instead of oxycodone or vice-versa.
|                       | - Explain that there is no upper dosage limit for opioids such as morphine, oxycodone and hydromorphone. Thus, dosages can be increased indefinitely and the resident should not "save medicines" for the time when the pain gets worse.
|                       | - Discuss that tolerance develops more slowly to the analgesic effects of opioids than to many side effects such as sedation and respiratory depression. |

**Education-Example**

- **Geriatric ELNEC (EOL Nursing Education Consortium)**
  - **Part 1** - Pain Assessment and Management
  - **Part 2** - Non-opioid medications, opioid medications and analgesic side effects
  - **Part 3** - Nursing assistant roles in pain management and non-drug interventions

- **Understanding Pain in Older Adults: Basics of Assessment**
  - **Module 2** - For All Nursing Home Staff
Quality Improvement

- Key strategy to improving pain practices in a good quality improvement program focused on pain
- Resources align with Advancing Excellence in Nursing Homes Campaign
- This section provides:
  - Tools that guide evaluation of current practices
  - Resources to assist with policy and procedure development
  - Monitoring procedures for determining if planned change is occurring

Quality Improvement-Example

<table>
<thead>
<tr>
<th>PAIN AUDIT CHECKLISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>These checklists can be used to audit the charts to determine whether staff are in compliance with the six QI Pain Questions. To be in compliance, all elements on the checklist should be marked “yes” on 95% of the charts audited.</td>
</tr>
</tbody>
</table>

INITIAL PAIN ASSESSMENT
Was an appropriate, comprehensive, and timely pain assessment completed for this older adult within 24 hours of admission? (Definition: Using a pain assessment tool that is appropriate to the older adult’s condition and cognitive status that includes pain history, type of pain, location, intensity, diagnosis/cause, and pain management goal)

<table>
<thead>
<tr>
<th>Audit Points – Audit 5-15 or 10% of older adult charts</th>
<th>YES</th>
<th>NO</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Audit the admission date/time and the assessment date/time – was the assessment completed within 24 hours of admission?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Was the older adult assessed for cognitive status and was the correct comprehensive assessment form used?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Was the comprehensive assessment completed appropriately?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Resources

- Provides access to key resources that are important for those focused on quality pain care in a LTC.

- This section provides:
  - Clinical Practice Guidelines
  - Federal Regulations
  - Organizations and Web resources

Resources - Example

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HPNA Position Statement
Pain Management

**Background**

Pain is a common symptom in most progressive, life-limiting illnesses. Pain is defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.” This definition underscores the multidimensional nature of pain, which has an impact on all facets of life, including the emotional and spiritual dimensions. Pain has also been defined as whatever the experiencing person says it is and existing whenever he/she says it does.8

As a major symptom for adults and children with cancer, pain has been well-documented.1-8 Approximately three-fourths of people with advanced cancer experience pain.7 Pain is also present in many advanced illnesses including heart disease, dementia, and stroke. Prolonged bedrest, pressure ulcers, bowel obstruction, and chronic illnesses (e.g., arthritis) all contribute to pain in advanced illness. Additional factors such as anxiety, depression, and spiritual distress influence and are influenced by the experience of pain. Pain can cause profound suffering and impaired quality of life.
Resources - Example

Organizations and Web Resources

- Advancing Excellence in American’s Nursing Homes
- American Association of Homes and Services for the Aging
- American Association of Nurse Assessment Coordinators (AANAC)
- American Geriatrics Society (AGS)
- American Health Care Association (AHCA)

Community Discussion Forum

- Platform for nurses and other healthcare professionals to bring questions, participate in case-studies, and share experiences and expertise
- Focus on pain management in older adults in LTC
- Facilitated by PhD prepared RN with experience in pain management in the LTC setting
  - General Questions
  - Sharing Experiences
  - Case Study
Pain in LTC

Resources and Guidelines

- American Geriatrics Society (AGS): Clinical Guidelines
  ➤ www.americangeriatrics.org
- American Medical Directors Association (AMDA): Clinical Guidelines
  ➤ www.amda.com
- American Pain Society
  ➤ www.ampainsoc.org
- Agency for Health Care Research and Quality (AHRQ): Clinical Guidelines
  ➤ www.ahcpr.gov/clinic/cpgonline.htm
- National Guideline Clearinghouse
  ➤ www.guide.gov
- National Pain Education Council (NPEC)
  ➤ www.npecweb.org

Improving pain care for older adults with dementia

YOUR CHALLENGE