Assessing & Managing Pain in Older Persons

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Prevalence: Pain in older people

- 25-50% of community dwelling older people have significant pain
  - 1 in 5 take analgesics regularly
  - 63% of those take prescription pain meds for >6 months
- Pain is 45-80% of nursing home residents have substantial pain that is undertreated
  - Prevalence of analgesic use is 40-50%


Pain in Older Persons

- Osteoarthritis
  - 80% are > 65 years
- Myofascial Pain Syndrome
- Chronic Low Back Pain
- Fibromyalgia
- Peripheral Neuropathy
- Post Herpetic Neuralgia
- Post stroke syndrome

Weiner, 2007

Undertreatment...

- Long term care
  - 21,380 LTC residents
  - 49% with persistent pain
  - 25% NO med in prior month
  - < 50% standing orders
    - Acetaminophen @ <1300mg/day
    - 1/3 prescribed high dose NSAIDs as standing order
  - Won et al, JAGS, 2004;52

- Hospital
  - 411 cognitively intact
  - 50% mod-severe pain at rest; 83% getting OOBOOB
  - 87% NO standing order for analgesic (all prn)
  - 91% mod-severe pain with PT

The primary reason for undertreatment is failure to assess and recognize pain

HERR, K, ASPI ANNUAL MEETING, 2008

Undertreatment

- Hospice
  - N=350,000, mean age 75.3
  - Severe pain at least once in >20%
  - Last pain intensity (with 2 or more pain scores)
    - 26% moderate to severe
  - Strassels et al. / Pain Symp Mgt. 2008:32.

- Emergency department
  - 1454 > 65 in ED with hip fracture
  - Mean pain intensity = 7 (severe)
  - 34% no objective assessment of pain
  - 40% NO analgesics ordered
  - Herr, Titter, / Emerg Mag. in press

THE PRIMARY REASON FOR UNDERTREATMENT IS FAILURE TO ASSESS AND RECOGNIZE PAIN

HERR, K. ASPI ANNUAL MEETING, 2008
**Best Practices**

**All pain management is based on individual response**

**Screening & Assessment Challenges**
- Multiple sources of pain & many co-morbid conditions
- Clinical manifestations are often complex & multifactorial
- Pain is often under-reported by older people
- Dementia, sensory impairments and disability complicate assessment & management
  - The older, frailer and more cognitively impaired, the less likely to receive ANYTHING for pain
- Age-related physiologic changes


**Reminders: Older People and Pain**
- Self-report is the gold standard
  - Tests of cognition can not predict the ability to report pain
- People with chronic (persistent) pain often do not "look" in pain
  - Expressions are even more blunted in the cognitively impaired
- Hearing, vision & cognitive changes make assessment challenging
  - We can’t tell by simply looking
- Vital signs are not a reliable source of help

Screening, assessment & re-assessment...
the only way to know:

**Screening for pain:**
If you don’t ask, most probably won’t tell you

- Routinely for ALL
- Reliable valid rating scale
- Tracked over time
- Rating that requires assessment

**Best Practices**

Self-report is the “gold standard”

Anything else is a guess
Is Self-report Reliable in Cognitively Impaired Adults?

- No scale of cognitive function (e.g., MMSE) can validate the inability to self-report pain
- 83% can use at least one tool
  - Ferrell BA et al. / Pain Symptom Manage. 1995;10:591-598.
- Report current pain most accurately

Pain Scale Use Increases Pain Detection

- 305 elders in LTC
  - Grp 1 – “do you have pain”
  - Grp 2 – VAS, Faces, VDS
- Frequency of pain report
  - Grp 1 – 15%
  - Grp 2 – 30%
- Cognitively impaired
  - Grp 1 – 10%
  - Grp 2 – 16%

Which Rating Scale?

- Iowa Pain Thermometer
- 0-10 Numeric Rating Scale
- Verbal Descriptor Scale
- 0 = None
  1 = Mild
  2 = Moderate
  3 = Severe
- Bieri Faces Pain Scale—revised

Pain Assessment is a process, not just a tool or pain rating

Assessment: Ask Detailed Questions About...

- Pain
  - Intensity rating
  - Pain language
- Relief
  - Relief rating
- Effects of pain on the person
- The person
- Side effects
- Physical findings
- The plan
- Response to treatment

Types of Pain

- Nociceptive, neuropathic, mixed
- Acute, persistent, persistent with acute episodes
- Flare, breakthrough
- Mild, moderate, severe
Look at the Whole Person
- Targeted physical exam
  - Watch in action
    - s/s de-conditioning
  - Poor posture, gait abnormalities
  - Splinting, self-restriction
  - On opioids?
    - Check bowels
- Other symptoms
  - Depression, anxiety, sleeplessness, etc.
  - Meaning and understanding
  - Accommodate for vision, hearing, cognitive changes

Identify Specific GOAL for Relief
- Mutually established with patient & provider
  - Functional goal
    - Acceptable quality of life
    - Ability to engage in activities
    - SMART goals
    - Number on the scale
  - Reassess to measure progress in reaching goal
  - DOCUMENT progress

With Sensory Alterations or Language Difficulties
- Sensory alterations:
  - Larger print/pictures
  - Clear contrast between print and background colors
  - Non-glare paper, buff, yellow or orange
  - Patient’s vision and/or hearing aids
- Speak clearly, directly to patient
- Minimize background noises
- Language difficulties
  - Use a professional translator whenever possible
  - Avoid medical jargon
  - “What will you tell …about this when you get home?”

Pain Assessment in the Nonverbal Person
With dementia
- Behavioral problem?
- Change in behavior, activity, mood, appetite, function etc?
- Think “pain” before “psychosis”
- Use analgesics before antipsychotics

In acute care
- APP (assume pain present)
- Watch for pain behaviors

Barriers
- Patients unable to articulate pain
- Behaviors from other issues & pain can all look the same
- Much inherent affective distress in dementia
- Desensitization: “she’s always like that”
- Reluctance to use opioids
- Psychotropics may mask symptoms

Hierarchy: Is Pain a Possibility?
1. Patient’s self-report
   1. Show & tell, persist with rating scales
   2. Search for a cause
      1. Conditions/diagnoses that usually cause pain
      2. Procedures that usually cause pain
      3. P.E. – consider the whole person – watch in action
   3. Pain behaviors
      1. Select an appropriate behavioral assessment tool
      2. “She/he’s a hitter, biter, screamer…”
   4. Report from family or other close caregivers
      1. Is pain a possibility? Develop a plan to treat it.
   5. Response to analgesic trial

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When they can’t use a scale or tell you if they have pain...

Use behavioral observation & understand what it does/doesn’t show

Detecting Discomfort in Dementia: Focus on Behaviors.
www.trc.wisc.edu

Common Discomfort Behaviors

Facial expressions
- Frown, sad, frightened
- Grimacing, wincing
- Wrinkled forehead, furrowed brow
- Clenched teeth and jaw
- Rapid blinking
- Any distorted expression

Vocalizations
- Sighing, moaning, groaning
- Crying, whining
- Grunting, chanting, calling out, mumbling
- Asking for help
- Verbally abusive

Common Discomfort Behaviors (Cont.)

Body movements
- Rigid, tense, guarding, restricted, bracing
- Massaging body part/area
- Fidgeting
- Increased pacing, rocking
- Gait or mobility changes

Interpersonal interactions
- Aggressive, combative, resistant
- Decreased social interactions
- Disruptive, inappropriate
- Withdrawn

Common Discomfort Behaviors (Cont.)

Changes in patterns and routines
- Refusing food, appetite change
- Change in sleep, rest patterns
- Sudden cessation of normal routines
- Increased wandering

Mental status changes
- Crying, tears
- Increased confusion
- Agitated, restless
- Irritability, distress

Best Rated Tools

1. DS-DAT
2. NOPPAIN
3. ADD Protocol
   ⊲ Renamed Serial Trial Intervention
4. CNPI
5. Doloplus 2
6. PACSLAC
7. PAINAD

Herr K et al. State of the art review of tools for assessment of pain in nonverbal older adults, 2006. www.prc.coh.org
**Checklist of Nonverbal Pain Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>With Movement</th>
<th>At Rest</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbal Expressions:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moans, groans, grunts, cries, sighs, gasps, says ouch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Vocal Expressions:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swears, says ouch, that hurts, stop, that's enough</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facial Expression:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wincing, grimace, furrowed brow, tight lips/jaw</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bracing:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clutches, holds side rails, bed, table, or area of pain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Restlessness:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shifting position, hand movements, unable to keep still</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rubbing:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touching, holding, rubbing or massaging affected area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Check each box if behavior observed at rest then with movement. Total each line (0-2).

**Empiric Analgesic Trail\(^\text{(*)}\)**

- **(n=1)**

  - With doubt, analgesic trial may be diagnostic
  - Treat behavioral symptom with pain med first
    - Fewer side effects than with psychotropics
    - Psychotropics may sedate & obscure pain indicators
    - If pain treatment is unsuccessful, proceed to psychotropics
  - Acetaminophen 650 mg tid (titrate to 3-4 g/day)
    - When to add an opioid? Titration?
    - When to decide pain is not the etiology?
Empirical Evidence

- 10 residents with “difficult” behaviors were treated with acetaminophen TID
- 5 of 10 showed ↓ in behavioral episodes
- Psychoactive meds ↓’d in 6 people


Reassessment

- Measure progress by reassessing
  - Changes in behavior, function, mood, appetite etc.
  - Improvements on behavioral scales
  - LOOK at the person
  - Adjust the plan
  - Continue to screen

Be a detective!

Best Practices

All pain management is based on individual response

Managing Pain

HELP!
- Identify early
- Prevent pain
  - Schedule meds and non-drug interventions
- Use multi-modal approaches
  - Combine non-pharmacologic interventions with meds as appropriate for each individual
  - Know about the medications you prescribe
  - Regularly monitor the person for adverse effects
  - Re-evaluate regularly
  - Include patient/resident and family in planning

Use a multimodal approach

- Basic needs
  - Clean, dry, comfortable
  - Positioning
  - Hunger, thirst
  - Counseling, support, distraction
- Assistive devices
- Physical therapy
- Relaxation/imagery
- Music therapy
- Activities therapy
- Other non-pharmacological interventions

- Medications - treat the whole person and be specific for the pain!
  - Non-opioid
  - Opioid
  - Adjuvants for neuropathic pain
- Schedule for persistent pain – NOT PRN
- Document, document, document
Principles for using medications

- By the clock for persistent continuous pain - not PRN
- Based on individual problem
- By mouth whenever possible
- Adjusted to individual response
- Anticipate and manage side effects
  - prophylactic bowel management program for all taking opiates
  - anticipate and manage other sides at initiation of therapy

Aging and the body...

- 🆕 Body fat
- 🆕 Lean body mass
- 🆕 Heart, kidney, liver function
- 🆕 Muscle mass
- 🆕 Gastric pH, motility, irritation
- 🆕 serum protein, esp. with malnutrition

Therefore:

- Due to age-related altered pharmacokinetics,
  - Medications may have a prolonged therapeutic effect and/or increased toxicity
- Start low, go slow, but GO!!
- Plan closer and more frequent monitoring

Using Meds in Older People

- Select med. based on individual problem – beware long term NSAID use
  - Start at the lowest effective dose
  - Titrate slowly after steady state is reached
  - Short-acting analgesics first, extended release after titration
  - Choose short half-life & fewest side effects
  - Rotate med if not effective/not tolerated/discontinue ineffective
  - Monitor & treat side effects; enhance function
- As feasible, use the oral route – avoid IMs
- For continuous pain, schedule the medications – not PRN
- With potential hepatic/renal dysfunction
  - Lower dose, longer intervals, slower titration

Non-opioids, Persistent Pain & Older Persons

- Acetaminophen: recommended as 1st line therapy, mild pain
  - Monitor acetaminophen doses
    - NO > 4 G/day with healthy liver, less for frail; avoid with liver impairment; some evidence of renal impairment with long term use
- NSAIDs - after acetaminophen trial, short term use
  - Select lowest effective dose for shortest time
  - Beware & monitor for side effects with long term use
    - Renal, GI toxicity, Platelet function
  - Avoid with renal impairment, may worsen HTN, CHF
  - 7 Benefits of co-administration of proton pump inhibitor
  - NSAID risk for older adults
  - Drowsiness, confusion, dizziness
  - > risk for gastritis
  - Topical NSAIDs appear safe for short term use (< 4 weeks)

Persistent Pain - Older Adults: Recommendations

<table>
<thead>
<tr>
<th>Drug</th>
<th>Recommended starting dose</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen</td>
<td>325mg - 650mg q4h or 500-1000 mg q8h</td>
<td>50-75% with liver co-morbidity; Maximum daily dose 4.4 g</td>
</tr>
<tr>
<td>Celecoxib</td>
<td>100 mg daily</td>
<td>Gastropiration if ASA used</td>
</tr>
<tr>
<td>Naproxen sodium</td>
<td>220 mg bid</td>
<td>May be less cardioxic</td>
</tr>
<tr>
<td>Ibuprofen</td>
<td>200 mg tid</td>
<td>May counteract ASA cardioprotection</td>
</tr>
<tr>
<td>Nabumetone</td>
<td>1 g daily</td>
<td>Long half life, little platelet effect</td>
</tr>
<tr>
<td>Choline magnesium trisalicylate</td>
<td>500-750 mg q8h</td>
<td>Broad 1.2 times daily; Minimal anti-platelet effect</td>
</tr>
<tr>
<td>Salsalate</td>
<td>500-750 mg q12h</td>
<td>↑ salicylate levels w hepatic/renal compromise; Min. anti-platelet effect</td>
</tr>
<tr>
<td>Diclofenac sodium</td>
<td>50 mg bid; 75 mg E.R.</td>
<td>May have higher cardiovascular risk</td>
</tr>
<tr>
<td>Ketorolac</td>
<td>-</td>
<td>Not recommended. High risk of GI and renal toxicity – No long term use</td>
</tr>
</tbody>
</table>


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**Opioids & Older Persons**

- For moderate to severe pain
  - Start with a trial...evaluate efficacy & goals
- Opioid-naïve - start low, go slow
  - Titrate no more than daily for frail elderly
- Select opioid agents without toxic metabolites
  - Oxycodone, hydromorphone, fentanyl
  - Tramadol & methadone with caution
- Use opioid-sparing multi-modal approaches
- For renal impairment, try fentanyl (biliary excretion)

**Recommended Opioids (AGS, 2009)**

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<tr>
<th>Drug</th>
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<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocodone</td>
<td>2.5-5 mg q 4-6h</td>
<td>Dose limited by non-opioid in combination – dose varies by product</td>
</tr>
<tr>
<td>Oxycodone Immediate release</td>
<td>2.5-5 mg q 4-6h</td>
<td>CR usually used after initial dose determined by IR or opioid rotation. May need q 8h dosing or q 24h</td>
</tr>
<tr>
<td>Morphine Immediate release</td>
<td>2.5-10 mg po q 4h</td>
<td>SR scheduling is product specific. Usually started at initial dose determined by IR. Toxic metabolites may limit usefulness with high dose</td>
</tr>
<tr>
<td>Hydromorphone</td>
<td>1-2 mg po q 3-4h</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td></td>
<td>Use ONLY by experienced clinicians</td>
</tr>
<tr>
<td>Oxymorphone</td>
<td></td>
<td>Significant interactions with food &amp; etoh</td>
</tr>
<tr>
<td>Hydromorphone Immediate release</td>
<td>5 mg q 6h</td>
<td></td>
</tr>
<tr>
<td>Transdermal fentanyl</td>
<td>12.5 mcg q 12h</td>
<td>After dose determined by IR. Peak is 18-24h. Duration 48-96h</td>
</tr>
</tbody>
</table>

**Constipation**

Begin bowel regimen when an opioid is started!

- Incidence:
  - Expected effect of opioid therapy
  - Tolerance usually does not occur
- Treatment:
  - Prevention, prevention, prevention!!!
  - Goal: comfortable and complete bowel movement at least every other day while taking opioids
  - Dietary changes, exercise
  - Stool softeners PLUS laxatives on a schedule

**Median Options: Neuropathic Pain**

- Select based on side effect profile
  - Antiepileptics
    - Gabapentin - good efficacy, monitor side effects
    - Pregabalin - often better tolerated
    - Safer profile than older options
  - Antiarrhythmics
    - Lidocaine patch 5%
  - SSNRI - good efficacy, but watch drug interactions
    - Duloxetine, Venlafaxine
  - Tricyclic antidepressants - watch side effects
    - Nortriptyline, desipramine

**Other Options (AGS, 2009)**

- Dual mechanism drugs
  - Tramadol
    - Opioid & norepinephrine-serotonin reuptake inhibitor
  - Tapentadol
    - Opioid & norepinephrine reuptake inhibitor
- Topical analgesics
  - Lidocaine patch, capsaicin, corticosteroids, topical NSAIDs (Diclofenac, Aspirin), bisphosphonates

**Patient Differences: Medications**

- We are physiologically different and use medications differently
- Because of wide & variable individual differences...
  - The right amount of pain medication is the amount that works for each person
  - The right medication is the one that works for each person
    - 6-10 fold or a difference in doses needed
  - Different drugs work or don’t work for different people
**Don’t Even Go Here!**

- Propoxyphene, Meperidine, Codeine
- IM injections
- Anti-anxiety meds or sedatives for pain
  - Sedatives for sedation only – do not treat pain
- Ignoring pain reports
- Assume sleep = relief
- Placebos

**Key Points**

- Appropriate assessment and management of pain is a patient right
- Pain is always subjective
- Physiologic and behavioral signs are not sensitive nor specific for pain
- Pain can exist when no physical cause is found
- Pain differs for each individual, even when stimulus is similar
- Unrelieved pain has significant physical and psychological consequences
- People with persistent pain may be more sensitive to pain than others.
- Cognitive impairment makes accurate assessment a challenge

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**What’s the difference?**

**Polypharmacy**

- Multiple meds from the same family at sub-therapeutic doses
- Medications not discontinued
  - Why was it originally prescribed?
  - Does the problem still exist/need treatment?
  - Have the goals of therapy been achieved?

**Multi-modal therapy**

- Each medication selected for a specific purpose
- Each medication has a different mechanism of action
- Non-pharmacologic interventions included
- Plan for monitoring & follow-up

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  - The right amount of pain medication is the amount that works for each person
  - The right medication is the one that works for each person
  - 6-10 fold or > difference in doses needed
- Different drugs work or don’t work for different people

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**Best Practices: References**

- American Pain Society Guidelines
  - Use of analgesics, 2008
  - Cancer pain, 2005
  - Arthritis pain, 2002
  - Sickle cell disease pain, 1999
  - Fibromyalgia, 2005 [www.americanpain.org]
- American Geriatrics Society Guidelines
  - Persistent pain in older people, JAGS, 2002
  - Pharmacologic Management of Persistent pain, JAGS, 2009 [www.american印n.org]
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  - Persistent pain in older adults, JAGS, 2009 [www.american印n.org]
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  - Pain in long term care, 2009 [www.amda.com]
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  - [www.ftr.wisc.edu]
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  - Position statements
  - Certification review materials [www.aspmn.org]
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  - Acute pain guideline, 1999
  - American Society of Anesthesiologists
  - Practice guidelines for acute pain management in the perioperative setting, Anesthesiology, 2004. [www.asa.org]

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**Additional references**


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