Pain treatment In older adults

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Overview of presentation

- Review the pain experience in the older adult
- Discuss pain treatment options for older adults with chronic pain
- Discuss the use of opioids for the treatment of chronic noncancer pain
- Review when opioids should be tapered or discontinued
- Discuss specific methods for lowering opioid dose when it is necessary
What is old?

Old can be determined based on:

- Physical appearance
- Key life events
  » Retirement from work
- Changing social roles
  » Becoming a grandparent
- How long one has lived
Aging

- Aging is characterized by a progressive constriction of the homeostatic reserve of every organ system.

- These changes are evident by the third decade and is gradual and progressive.
Healthy old age is NOT an oxymoron

In the absence of disease, the decline in organ system reserve causes no symptoms and imposes few restrictions on activities of daily living regardless of age.
There are more older adults than ever

- In 2000, there were 600 million people worldwide aged 60 and over;
  - There will be 1.2 billion by 2025, and
  - 2 billion by 2050.

- In the developed world, the very old (age 80 and over) is the fastest growing population group.

US population over 65 years

General changes

- Non uniform decrement in structure and function

- Age-related decreases in organ function do not lead to “abnormal” function under normal conditions
  - However, organ function may fail when stressed, or may not be able to meet increased metabolic demand during stress
CNS changes

- The CNS and PNS begin to deteriorate as early as age 50

- There is a gradual cognitive decline associated with aging
  - Neuronal death & degeneration leads to progressive functional decline
  - This occurs in the frontal and temporal lobes

- However, “normal” brain function can continue into late in life
  - Neuronal plasticity may persist into the 70’s
  - Volume and number of neurons lost less than previously thought
Pain perception

- Limited evidence from studies using experimental pain stimuli and cohort studies of acute medical conditions reveals a consistent age-related decrease in pain perception and report

  - About 40% of patients over 65 years experience little or no pain during peritonitis, intestinal obstruction, or pneumonia

  - The “silent” MI occurs in 35-42% of older patients

  - Older patients tend to report lower pain intensity reports following surgery

  - Older patients tend to report less severe pain associated with cancer
Experimental pain research also shows a modest age-related decline in pain sensitivity to mild noxious stimuli.

- A recent meta-analysis of studies of pain thresholds revealed that the pain threshold of the average older adult would belong in the top 15% of values seen in younger adults.
Pain sensitivity

A decreased pain sensitivity might compromise the warning function of pain by shortening the time between the first perception of pain and consequent tissue damage.
Vulnerability to severe or chronic pain

- A meta-analysis of pain tolerance studies demonstrated an age-related decline in the ability to tolerate severe pain.
  - The effectiveness of descending pain inhibitory mechanisms, especially the endogenous opioid component, appears to deteriorate with advancing age.
Chronic pain and age

- Overall prevalence of bothersome pain in the last month is 52.9% in US adults over age 65.
  - Pain does not vary over age groups
  - Pain prevalence is higher in women and in older adults with obesity, musculoskeletal conditions, and depressive symptoms
  - The majority (74.9%) of older adults with pain endorsed multiple sites of pain

- The presence of pain is strongly associated with decreased physical function

Pain 2013; 154:2649-2657
Predictors of pain in older adults

- Depression and being overweight are independent predictors associated with a higher likelihood of pain in adults over 50 years of age
  - Smoking in the presence of depression also increases the risk of pain

Pain 2010; 366-371
Pain in the elderly living in the community

- Over 81% of adults age over 65 who live in the community report experiencing pain over the past 4 weeks.
  - 50% reported that pain interfered with activities
  - 26% reported taking any analgesic medication (PRN or scheduled)

- Pain is a significant predictor of worse physical functioning

Pain Medicine 2019; 20:58-67
Pain experience in the nursing home setting

- The prevalence of pain has been reported to be 20% - 73% in nursing home residents.

- Pain can lead to many negative consequences, including impaired function and onset / worsening of neuropsychiatric symptoms.

- NSAIDs can cause serious and potentially lethal AEs, especially in the elderly.

Older adults with pain are vulnerable

- Individuals with multiple medical problems often face limited treatment options due to the increased risk of AEs
- Reduced economic resources adversely impact treatment options
- Restricted social support networks and mobility can reduce access to specialty services
- The elderly appear more likely than their younger counterparts to obtain inadequate pain assessment
Pain has a serious impact on older people

- Pain, especially when combined with depression, is a harbinger of declining health and functioning

- Depression is a likely mediator between pain and frailty, even more than the underlying medical cause of the pain

Pain 2008; 140:224-230
Treatment strategies for chronic pain
Patient assessment

- In older persons it is especially important to take a detailed medical history and conduct a full physical examination
  - Look carefully at co-morbidities
  - Look carefully at medications
Pain assessment

- Instruments with demonstrated merit in younger adult populations are generally useful in older adults
  - Categorical scales based on verbal descriptors (none, weak, mild, moderate, etc.) are preferred by older persons and have the greatest utility, reliability, and validity
  - There is less uniform support for VAS, and some concern over its use
- Select tools that are consistent with the personal preference of the individual once that is known
Caring for the older adult: Basic concepts

The Weakest Link

- The weakest links are often the:
  - Brain,
  - Lower urinary tract
  - Cardiovascular system
  - Musculoskeletal system

Presenting Symptoms

- Therefore, a limited number of presenting symptoms predominate
  - Acute Confusion
  - Depression
  - Incontinence
  - Falling
  - Syncope

- No matter what the underlying disease
Caring for the older adult: Basic concepts

- Older patients often develop symptoms at an earlier stage of their disease

- There are usually multiple abnormalities amendable to treatment, and small improvements in each may yield dramatic benefits
  - Substantial functional improvement can result from treating the contributing factors, even if the disease itself is largely untreatable
Caring for the older adult: Basic concepts

- Treatment of a single disease in an older patient is unlikely to result in cure.

- Treatment and prevention may be equally or even more effective.
General principles

The choice of analgesic drugs requires:

- an understanding of the age-related PK and PD changes, and

- must consider the impact of co-morbid disease and concurrent medication use
Chronic pain treatment options
What do we really know?

- Most of the information regarding pain medications come from young adult populations.

- Most of the information regarding interventional therapy also comes from young adult populations.

- The degree to which standard treatments require modifications to meet the needs of older adults has not been systematically studied.
  - Age differences in treatment efficacy or safety have rarely been considered.
Interdisciplinary therapy

- Interdisciplinary care leads to the best outcomes
  - Even though it may be difficult for the patient and family

- Consider:
  - Physical and Occupational therapy
  - Psychological methods
  - Education programs
  - Social support interventions
  - Interventional therapy
Interdisciplinary care and the older adult

- Older patients are:
  - Under-represented in interdisciplinary programs
  - Less likely to be offered interdisciplinary therapy
  - Receive fewer treatment options when attending such clinics

Clin J of Pain 1998; 14:121
Non- opioid analgesic medications

- Simple analgesics such as acetaminophen are the treatment of choice for mild to moderate persistent pain,
  - Especially those pains associated with musculoskeletal conditions

- NSAIDs and COX-2 selective inhibitors should be used with caution due to the increased risk for AEs
Non- opioid analgesic medications

- All medications, including opioids and adjuvant analgesics, carry a balance of benefits and risks that must be carefully considered

  - Older patients are 2-3 times more likely to have adverse drug reactions
Interventional therapy

- May be useful, but age-specific, high-quality outcome data are lacking for many procedures
Opioids for the treatment of chronic pain

- While opioids can be effective for well-selected patients, the mean pain relief is 40%, and many patients report either inadequate pain control or develop unacceptable adverse effects.

- Adverse side effects include constipation, sedation, compromise of ventilation, cognitive changes, aberrant drug-related behaviors, and opioid use disorder.

- Given the risks associated with opioid administration, opioids should be continued only when efficacy is demonstrated, and the patient does not have any unacceptable adverse effects.
Warnings

- Older patients CAN have / develop addiction
- Older patient are more likely to be on benzodiazepines and Z-drugs
- Drug-drug interactions are COMMON
Measuring outcomes in chronic pain

- **Pain Intensity**
  - Least, worse and average over the last week

- **Pain Interference**
  - Physical functioning
  - Mental functioning
  - Sleep

- **Mood**
  - Depression (PHQ9)
  - Anxiety (GAD7)

- **Physical functioning (PROMIS 6)**

- **Global response to therapy**
  - 7-point Likert scale
Indications for opioid taper

- Opioids should be tapered if:
  - The patient is not experiencing improved pain control which should be associated with improved physical/mental functioning
  - The patient is experiencing unacceptable adverse effects
    » This includes evidence of aberrant drug-related behavior and opioid use disorder
Discussing opioid taper with the patient
Opioids and multi-modal care

- The groundwork for tapering / discontinuation of opioids is best established when opioids are started.
  - Reasonable expectations regarding goals of care
  - A clear understanding by both patient and provider on reasonable goals of care
  - Understanding the process of care through the signed opioid agreement

The goal is that the patient is not surprised by the decision to taper / discontinue opioids if this decision is made
Discontinuation of opioids vs. discharge from the practice

- While the patient may be focused on obtaining / continuing opioids, it is important to note that opioids are one of many options for pain treatment, and that outcomes associated with opioid therapy are no better (and perhaps worse) that many non-opioid treatment options.

- In general, discontinuation of opioids should not lead to patient discharge.
  - Patient discharge should be limited to the small number of patients in whom safety, illegal, confrontation, compromised physician:patient relationship issues require discharge.
When is tapering offered?

- Lowering opioid dose, or discontinuation of opioids can occur throughout treatment:
  - Patients may be referred for an opioid taper
  - Patients may present having been on opioids when opioids are not indicated
  - Patients may present having been on extremely high opioid doses
  - Patients may be seen in follow-up and a determination is made that opioid doses should be lowered or opioids discontinued
How to discuss tapering with patients

- It is important that providers set clear, well-documented and realistic expectations with their patients for the opioid taper.

- Discussions using patient-centered techniques, such as motivational interviewing, should be used to encourage the patient and to decrease the risk that the patient will discontinue the taper.
How to discuss tapering with patients

Key components of a tapering conversation:

- Discuss the rationale for why the patient is at risk for opioid-related harm or why opioids are not indicated;
- Help the patient understand that opioids are not the only method to treat the patient’s pain and associated complexities; and
- Focus the conversation on helping the patient manage pain without opioids if it is clear that discontinuation of opioid therapy needs to occur.

HOWEVER, discontinuation of opioids, if necessary, should not be contingent on response to non-opioid therapy
How to discuss tapering with patients

Key components of a tapering conversation:

- If the provider and patient “agree to disagree”, the difference between abandoning the patient and discontinuing opioid therapy should be emphasized; and

- If objections arise, they should be met with empathetic review of the benefits and risks of opioid therapy.
Opioid tapering protocol
Opioid tapering protocol

Carefully monitor and individualize the tapering protocol used for each patient to minimize increases in pain symptoms and signs of withdrawal.

- The **speed of the taper** will depend on:
  - How long the patient has been prescribed opioids;
  - The patient’s current opioid dose;
  - The type of opioid formulation; and
  - The patient’s medical history, including any present psychiatric conditions or substance use disorders.
Opioid tapering protocol

A general tapering protocol that can be adapted for different patients:

- Make a determination, based on efficacy of opioids AND risk of harm, if opioids should be stopped or the dose decreased.
  - Or if other medications need to be discontinued to be able to safely administer opioids
  - Conduct a risk assessment and check the PDMP to determine if tapering is appropriate
Opioid tapering protocol

A general tapering protocol that can be adapted for different patients:

- **Start slow**: Decrease dosage at an appropriate speed for the patient / circumstance. Often a slow opioid that may take several months is proper.

  - Use **medications as needed** to treat symptoms of withdrawal, including clonidine for autonomic nervous symptoms and small doses of loperamide for diarrhea.
Opioid tapering protocol

- Short-acting vs. long-acting opioids

- Conversion to long-acting (including methadone), followed by a taper.

- Collaborative discussion and review of short-term and long-term treatment plan

- Need for clear documentation of treatment plan

- Frequent query of PDMP, conduct of UDS, required provider visits
  - Monitoring for a responding to ADRB
  - Consideration of specialty referral

- Need for frequent submission of prior-authorization requests with serial opioid dose changes
Key points

- Aging is associated with a gradual decline in functional reserve of many organ systems.
- Pain has a substantial adverse impact on the lives of older people.
- Pain assessment may be difficult – but not impossible in older people.
- Pain therapy is often withheld.
Key points

- Pain therapy should be interdisciplinary

- Medications can be used
  - Understand the drugs you intend to use
  - The incidence of AEs may be higher
  - The necessary dose may be lower
  - Be prepared to taper or discontinue all medications, including opioids