Making Pain Management Less Painful

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Objectives

• Discuss myths that surround treating pain in the elderly
• Describe various types of pain
• Describe barriers that make pain more difficult to treat in the elderly
• Describe basic principles of pain management specific to elderly patients
Objectives - continued

• Explain pharmacological treatments of pain
• Describe non-pharmacological treatment of pain
• Learn about the use of pharmacogenomic testing in pain management
1) According to the National Center for Health Statistics, in 2006, what percent of Americans suffered from pain lasting longer than 24 hours?
2) According to the National Nursing Home Survey from 2004, how many residents reported or showed signs of pain.

https://stacks.cdc.gov/view/cdc/5714/Share
3) According to Nursing Home Compare: What percentage of short-stay residents self-report moderate to severe pain

https://www.medicare.gov/nursinghomecompare/profile.html#vwgrph=1&profTab=3&ID=235450&Distn=0.0&state=MI&lat=0&lng=0&AspxAutoDetectCookieSupport=1
QUIZ

4) How many times is the word “Pain” mentioned in Appendix PP?

- Revised 3/8/17
Definition

According to Merriam-Webster

Pain -

- usually localized physical suffering associated with bodily disorder (such as a disease or an injury)
- A basic bodily sensation induced by a noxious stimulus, received by naked nerve endings, characterized by physical discomfort (such as pricking, throbbing, or aching), and typically leading to evasive action

What is pain?

- Unpleasant
- Subjective

Pain is what the resident says that it is

- But in facilities, residents are notorious for not verbalizing their pain
- Actions speak louder than words
Verbal Communication of Pain

- Sighing
- Moaning
- Groaning
- Crying
- Blowing
- Screaming
- Requests for help
- Requests for meds
- And the list goes on...
Non-Verbal Communication of Pain

- Frowning,
- Grimacing,
- Fearful look
- Grinding of teeth
- Bracing,
- Guarding,
- Rubbing
- Fidgeting
- Agitation

- Restlessness
- Poor appetite
- Poor sleep
- Sighing
- Groaning
- Crying
- Heavy breathing
- Decreased activity

- Resisting Care
- Changes in gait
- Changes in behavior

- And the list goes on
When pain goes untreated

- Quality of Life declines
  - General health
  - Functional capability
  - Cognitive abilities
- Health care utilization increases
- There is an impact on all care givers
- Regulatory and legal liability
  - Can also be a barrier to treatment
  - Laws
  - 3rd party rules
- Effects on the health care center
  - Reputation
  - Referrals
Impacts of pain

- Physical
- Spiritual
- Social
- Psychological
Physical Impact

- Decrease in functional capabilities
  - ROM limitations
- Strength and endurance declines
- Nausea
- Appetite declines
  - Weight loss
- Sleep
  - Sleep cycle
- Skin
  - Breakdown
Spiritual

- Increased suffering
- Religious beliefs

Social Impact

- Diminished social relationships
- Altered appearance
- Increased burden on caregivers
Psychological Impact

- Decreased ability to enjoy leisure
- Decreased ability to enjoy “normal” activities
- Increased anxiety
- Increased fear
- Depression
- Distress
- Poor concentration
- Feeling of being “out of control”
- Changes in mood
Impact of Pain

- Journal of the American Geriatrics Society looked at the impact of pain on outcomes
  - A review of LTC facilities in Missouri in retrospective analysis
  - MDS; Activities of Daily Living Scale, Cognitive Performance Scale

- Pain was associated with
  - Physical disability
  - Pressure ulcers
  - Depression
  - Cognitive

How do we miss pain?

- “It’s part of aging”
- Inadequate assessment
- Inadequate treatment
- “I don’t want to bother anyone”
Types of Pain - Acute

- Acute Pain
  - Definition: “the normal, predicted physiological response to an adverse chemical, thermal or mechanical stimulus” ¹
  - “Useful” biologic process
  - Self-Limiting
  - Resolves over days to weeks

Types of Pain - Chronic or Persistent

- **Chronic Pain**
  - May be considered a disease state
  - Or associated with a disease state
  - Pain that lasts longer than the normal time of healing (usually >3 months)
  - May arise from a psychological state
  - Serves no purpose
  - Has no recognizable endpoint
Types of Pain - Chronic or Persistent

- Musculoskeletal problems
  - Arthritis
  - Wounds
  - Dental problems

- Bone
  - Pain increases with movement
  - Osteoporosis
  - Fractures
  - Cancer
Types of Pain - Chronic or Persistent

- Nerve
  - Neuropathy
  - Herpes zoster
- spasms
Severity of Pain

► **Mild** - Treat with 1st line therapies
  ► Acetaminophen
  ► NSAIDs
  ► Hydrocodone combinations

► **Moderate**
  ► Long-acting opioids with/without adjuvants

► **Severe**
  ► Long-acting opioids with/without adjuvants
Severity of Pain

- **Mild Pain**
  - Nagging/annoying
  - Doesn’t interfere with most ADL
  - Able to adapt to pain with psychological methods (think of something else, go to happy place) and pain medication
Severity of Pain

► Moderate Pain

► Interferes significantly with ADL

► Lifestyle changes are required, but still able to function independently

► Unable to adapt/cope with pain without intervention (medication, other treatment modalities)
Severity of Pain

- **Severe Pain**
  - Unable to perform ADL
  - Unable to engage in normal activities
  - Disabled/unable to function independently
Pain & Aging

- Five star rating system
  - Antipsychotic use - “Not due to a medical condition or problem (e.g. pain...)”
- Pain is not a normal part of aging
- Fifth Vital Sign

What’s the big deal?

- Quality of life
- Admitting Residents are getting sicker
- More awareness about pain
- F675 (Quality of Life)/F697 (Pain Management)/Joint Commission Pain Management Standards
- Liability for inadequate treatment of pain
Revisions to Interpretive Guidelines

- Expert panel
- Comment period
- CMS facilitated and developed final regulations
- Guidance is helpful but is not regulation

  Any citations must be based on a violation of statutory or regulatory requirements
  
  NOT the guidelines

  Deficiency citation must be written to explain how there was a failure to comply with the regulatory requirements, not a failure to comply with the guidelines for the interpretation of those requirements
Guidance to surveyors

- F675

- 483.24 Quality of life

“Quality of life is a fundamental principle that applies to all care and services provided to facility residents. Each resident must receive and the facility must provide the necessary care and services to attain or maintain the highest practicable physical, mental, and psychosocial well-being, consistent with the resident’s comprehensive assessment and plan of care.”
§483.25(k) Pain Management.

The facility must ensure that pain management is provided to residents who require such services, consistent with professional standards of practice, the comprehensive person centered care plan, and the residents’ goals and preferences.

**INTENT** §483.25 (k) Based on the comprehensive assessment of a resident, the facility must ensure that residents receive the treatment and care in accordance with professional standards of practice, the comprehensive care plan, and the resident’s choices, related to pain management.
DEFINITIONS § 483.25 (k)

“Adjuvant Medication” describes any medication with a primary indication other than pain management but with analgesic properties in some painful conditions.

“Adverse Consequence” is an unpleasant symptom or event that is due to or associated with a medication, such as impairment or decline in a resident’s mental or physical condition or functional or psychosocial status. It may include various types of adverse drug reactions and interactions (e.g., medication-medication, medication-food, and medication-disease).

NOTE: Adverse drug reaction (ADR) is a form of adverse consequences
GUIDANCE § 483.25 (k)

Recognition and Management of Pain - In order to help a resident attain or maintain his or her highest practicable level of well-being and to prevent or manage pain, the facility, to the extent possible:

- Recognizes when the resident is experiencing pain and identifies circumstances when pain can be anticipated;
- Evaluates the existing pain and the cause(s), and
- Manages or prevents pain, consistent with the comprehensive assessment and plan of care, current professional standards of practice, and the resident’s goals and preferences.
Strategies for Pain Management - Strategies for the prevention and management of pain may include but are not limited to the following:

- Assessing the potential for pain, recognizing the onset, presence and duration of pain, and assessing the characteristics of the pain;
- Addressing/treating the underlying causes of the pain, to the extent possible;
- Developing and implementing both non-pharmacological and pharmacological interventions/approaches to pain management, depending on factors such as whether the pain is episodic, continuous, or both;
Strategies for Pain Management - Strategies for the prevention and management of pain may include but are not limited to the following:

- Identifying and using specific strategies for preventing or minimizing different levels or sources of pain or pain-related symptoms based on the resident-specific assessment, preferences and choices, a pertinent clinical rationale, and the resident’s goals and; using pain medications judiciously to balance the resident’s desired level of pain relief with the avoidance of unacceptable adverse consequences;

- Monitoring appropriately for effectiveness and/or adverse consequences (e.g., constipation, sedation) including defining how and when to monitor the resident’s symptoms and degree of pain relief; and

- Modifying the approaches, as necessary.
Pain Recognition

Expressions of pain may be verbal or nonverbal and are subjective

In addition to the pain item sections of the MDS, many sections such as sleep cycle, change in mood, decline in function, instability of condition, weight loss, and skin conditions can be potential indicators of pain. Any of these findings may indicate the need for additional and more thorough evaluation.
Assessment

In addition to the Resident Assessment Instrument (RAI), it is important that the facility identifies how they will consistently assess pain. Some facilities may use assessment tools that are appropriate for use with their resident population. There are many reliable and valid evidenced based practice tools available to facility staff to assist in the assessment of pain. Pain assessment tools that can be used with cognitively intact and impaired residents can be obtained on the Geriatric Pain website at http://www.geriatricpain.org/Content/Assessment.
Assessment - continued

An assessment or an evaluation of pain based on professional standards of practice may necessitate gathering the following information, as applicable to the resident:

- History of pain and its treatment (including non-pharmacological and pharmacological treatment and whether or not each treatment has been effective);
- Characteristics of pain, such as: (intensity, pattern, location, frequency and duration)
- Impact of pain on quality of life (e.g., sleeping, functioning, appetite, and mood);
- Factors such as activities, care, or treatment that precipitate or exacerbate pain as well as those that reduce or eliminate the pain;
Assessment - continued

An assessment or an evaluation of pain based on professional standards of practice may necessitate gathering the following information, as applicable to the resident:

- Additional symptoms associated with pain (e.g., nausea, anxiety);
- Physical and psychosocial issues (physical examination of the site of the pain, movement, or activity that causes the pain, as well as any discussion with resident about any psychological or psychosocial concerns that may be causing or exacerbating the pain);
- Current medical conditions and medications; and
- The resident’s goals for pain management and his or her satisfaction with the current level of pain control.
While it may be difficult to conduct a thorough assessment of all of the above factors in a cognitively impaired or non-responsive resident, the facility staff is responsible for obtaining as much information as possible and evaluating the resident’s pain through all available means. Observing the resident during care, activities, and treatments helps not only to detect whether pain is present, but also to potentially identify its location and the limitations it places on the resident.
IDT develops a regimen specific to each resident with pain or the potential for pain.

Regimen considers:
- Causes
- Location
- Severity
- Benefits and risks
- Side effects

Partial pain relief
- Acceptable

To be continued . . .
Non-pharmacological interventions

- Research supports physical activity and exercise as a part of most treatment programs for chronic pain. Activity can be supported by conventional physical therapy and exercise approaches, or by a wide range of movement therapies.

- Examples:
  - Altering environment for comfort
  - Physical modalities
  - Exercises to address stiffness and prevent contractures
    - Restorative nursing
  - Cognitive/Behavioral interventions

To be continued . . .
F697

- Key Elements of Noncompliance - investigation will generally show that the facility failed to do one or more of the following:
  - Provide pain management to a resident experiencing pain; or
  - Provide pain management that met professional standards of practice; or
  - Provide pain management that was in accordance with the resident’s comprehensive care plan, and the resident’s goals for care and preferences
Assessing and Following Up

- There are wide variations in the amount of pain that is experienced in response to a particular insult.

- There are also wide varieties in response to therapy.

- Assessment and follow-up are essential to successfully managing pain.
Assessing and Following Up

- Patient report
- Where does it hurt?
- Severity
- Description of the pain
- Aggravating/Relieving factors
- Previous therapy experiences
- Use “Yes” and “No” questions when possible
- Include family members
Assessing and Following Up

• Pain is subjective (it is what the patient says it is)
• Pain is different from patient to patient (pain tolerance)
• Multiple Scales available to assess pain
  ▶ 1 to 10 scale
  ▶ Face Scale
Pain Assessment

How should pain be assessed?
- Consistently (numeric rating system, verbal descriptor, non-verbal indicators)
- MDS Pain Assessment Interview (Presence, Frequency, Effect, Intensity)

When should pain be assessed?
- Upon Admission
- With each quarterly/annual review in a LTC facility
- Significant decline or change
- When administering PRN medications for pain
## Pain Assessment in Advanced Dementia (PAINAD) Scale

<table>
<thead>
<tr>
<th>Items*</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative vocalization</td>
<td>None</td>
<td>Occasional moan or groan. Low-level speech with a negative or disapproving quality.</td>
<td>Repeated troubled calling out. Loud moaning or groaning. Crying.</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**

---

## Pain Assessment - The Interview

<table>
<thead>
<tr>
<th>ABCDE Mnemonic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Ask about pain regularly; Assess pain systematically</td>
</tr>
<tr>
<td>B</td>
<td>Believe the patient and family in their reports of pain</td>
</tr>
<tr>
<td>C</td>
<td>Choose pain control options appropriate for the patient, family, and setting</td>
</tr>
<tr>
<td>D</td>
<td>Deliver interventions in a timely, logical, and coordinated fashion</td>
</tr>
<tr>
<td>E</td>
<td>Empower patients and their families</td>
</tr>
</tbody>
</table>

# Pain Assessment - Mnemonic

| P | Palliative/provocative factors  
What makes the pain better/worse? |
|---|--------------------------------|
| Q | Quality  
Describe the pain |
| R | Radiation  
Where is the pain? |
| S | Severity  
Compare this pain to other pain |
| T | Temporal factors  
Does the intensity of the pain change with time? |

# Pain Assessment - FLACC Scale

<table>
<thead>
<tr>
<th>Categories</th>
<th>0</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>No particular expression or smile</td>
<td>Occasional grimace or frown, withdrawn, disoriented</td>
<td>Frequent to constant frown, quivering chin, clenched jaw</td>
</tr>
<tr>
<td>Legs</td>
<td>Normal position or relaxed</td>
<td>Uneasy, restless, tense</td>
<td>Kicking or legs drawn up</td>
</tr>
<tr>
<td>Activity</td>
<td>Lying quietly, normal position, moves easily</td>
<td>Squirming, shifting back and forth, tense</td>
<td>Arched, rigid, or jerking</td>
</tr>
<tr>
<td>Cry</td>
<td>No cry (awake or asleep)</td>
<td>Moans or whimpers, occasional complaint</td>
<td>Crying steadily, screams or sobs, frequent complaints</td>
</tr>
<tr>
<td>Consolability</td>
<td>Content, relaxed</td>
<td>Reassured by occasional touching, hugging, or being talked to; distractible</td>
<td>Difficult to console or comfort</td>
</tr>
</tbody>
</table>

*Source: Reference 20.*

Barriers to Effective Pain Management

• Anxiety or Depression
• Decreased mobility or impairment from normal functions
• Agitation or Aggression
• Patient concerns regarding controlled medications
• Patient knowledge, preferences and expectations
• Weight loss
• Sleep disturbances
Fears of Pain Treatments

- Side effects of pain medications
  - Cognitive impairment
- Addiction
- Abuse
- Pain
  - Something more serious is wrong
  - Death is imminent
Fears of Dependence and Addiction

- Physical dependence is a physiological phenomenon defined by the development of an abstinence syndrome following:
  - Abrupt discontinuation of therapy
  - Substantial dosage reduction
  - Agonist administration

- Addiction is compulsive use resulting in physical, psychological or social harm to the user and continued use despite that harm
Fears and Other Misconceptions

Tolerance has not been proven to be a prevalent limitation to long-term opioid use. Respiratory depression is less important than treating pain adequately.

Factors that cause greater risk of respiratory depression:

- Opioid naïve
- Advanced Age
- Rapid infusion rates
- Respiratory disease
- Using of accumulating agents
Diversion Concerns

- Less likely with long-acting medications

- Regulations
  - Shift-shift count sheets
  - Policies and Procedures
Treatment of Pain

- Keep it simple - stepwise
- Utilize adjuvants
- Keep in mind side effects
- Treat the cause of the pain and the type of pain
- Keep in mind the goal and set realistic goals
- Comorbidities
Treatment Goals

- Acute Pain Treatment Goals
  - Treat cause of pain
  - Interrupt pain signals (pain relief)

- Chronic Pain Treatment Goals
  - Manage Pain
  - Use a multidisciplinary approach
Route Selection

• Oral - simple, cost effective, long-acting forms
• Rectal - easy alternative to oral, minimal options, patient preferences
• Transdermal - Poor titratability, slow onset
• Parenteral - Expensive, invasive, fast
Pain Medications

- NSAIDs - risks
- Non-opioid Analgesics
  - Tylenol - toxicities
  - Aspirin
  - Tramadol
- Misc.
  - Gabapentin
  - Pregabalin
  - Duloxetine
Pain Medications - continued

- Opioid Analgesics
  - Codeine - side effects
  - Hydrocodone - synthetic codeine
  - Duragesic patches - onset, titration
  - Morphine - various available routes and titratability
  - Oxycodone - routes, semi-synthetic morphine
Agents to avoid

- **Talwin** - low activity, hallucinations, delirium, agitation
- **Meperidine (Demerol)** - short duration of action, seizures, erratic and variable absorption orally
WHO Pain Ladder

- Three step ladder
- Designed for treating cancer pain
- Step 1: non-opioids
- Step 2: mild opioids (codeine)
- Step 3: Strong opioids (morphine)
WHO Pain Ladder

- Adjuvants used at each step to calm fears and anxiety
- Drugs should be given “by the clock”
Pain Treatment

- 100% Relief may not be possible
  - Or desirable
- Work with patient/prescriber to have specific goals of treatment
  - Be able to walk to go to the bathroom with minimal pain
  - Uninterrupted sleep pattern (sleep better)
  - Be able to have meaningful conversation without being too sedated
Non-NSAID Analgesic - Acetaminophen

- Available in both Rx and OTC formulations and in OTC and Rx combination products
- Inhibits synthesis of prostaglandins
- Antipyretic activity via inhibition of hypothalmic heat regulation center
- Dosing: 325mg-650mg Q 6-8 hrs as needed
Non-NSAID Analgesic - Acetaminophen

- Onset of action: typically < 1 hr
- BBW: High doses associated with acute liver failure, chronic use may also result in liver damage
- Package Insert limits dose to 4000 mg daily
  - FDA recommends max dose of 3000 mg daily
Non-NSAID Analgesic - Acetaminophen

- Often found in combination products
  - Read the labels especially cough/cold combinations (acetaminophen, APAP)

- 2014 Changes
  - Vicodin 5/500 and Vicodin ES 7.5/750mg
  - FDA Limited the amount of APAP allowed in combination products to try and reduce the potential of accidental APAP toxicity
Non-narcotic - Tramadol

- Available as a single agent
  - Available in combination with Acetaminophen
  - Concomitant use of BZDs and other CNS depressants - use caution
  - Reduces seizure threshold

- Serotonin Syndrome
  - Agitation
  - Ataxia
  - Sweating
  - Diarrhea
  - Fever
  - Hyperreflexia
  - Myoclonus
  - Shivering
NSAIDS

- Available as Over the Counter vs Prescription
  - OTC (Ibuprofen, Naproxen)
  - Rx (Celebrex, Mobic, Voltaren, Toradol)
NSAIDS

- Work by inhibiting cyclooxygenase which reduces the precursors for prostaglandins which creates analgesic, anti-inflammatory, antipyretic effects
  - COX-1: involved in protecting stomach lining, kidney and platelet function
  - COX-2: primarily found at sites of inflammation/injury
  - OTC NSAIDS Inhibit both COX-1 and COX-2
    - Risk of stomach ulcers, decreased kidney function, increased bleeding time
    - Lower doses available OTC, higher doses available by Rx
OTC NSAIDS

- Ibuprofen
  - OTC Dosing: 200-400mg Q 4-6 hours as needed (max of 1200mg daily for 10 days)
  - Rx Dosing: 400-800mg Q 6 hrs as needed (max of 3200mg daily)

- Naproxen
  - OTC Dosing: 200mg Q 8-12 hrs as needed, maximum of 400mg in 8-12hr period and 600mg/24hrs
  - Rx Dosing: 250mg Q 6-8hrs or 500mg Q 12 hrs, maximum of 1000mg/24hr
Rx NSAIDS

- Some can selectively bind COX-2
  - Try to reduce the side-effects of non-selective COX inhibition

- Black Box Warnings
  - Increased risk of CS thrombotic events (MI, Stroke)
  - Increased risk of GI bleeding (can happen at any time in treatment)
Rx NSAIDS - Continued

- **Mobic (meloxicam)** - non-selective
  - Dosing: 7.5-15mg daily
  - Use not recommended with CrCl < 20ml/min
  - Common Side Effects: GI upset, diarrhea, edema

- **Celebrex (celecoxib)** - Cox2 Inhibitor
  - Dosing: 100-200mg BID
  - Monitor renal function, edema
  - Common Side-Effects: GI upset, diarrhea, edema
Rx NSAIDS - Continued

- Voltaren (diclofenac) - non-selective
  - Available oral and topical gel/patch
  - 100-200mg oral in 3-4 divided doses
  - Apply 1 patch twice daily to affected area
  - Gel: Max total body dose not to exceed 32g per day
    - Lower Extremity: 4g per dose 4 times/day, max of 16g per joint/day
    - Upper Extremity: 2g per dose 4 times/day, max of 8g per joint/day
Opioids

- Bind to opiate receptors in CNS causing inhibition of the pain pathway
- Alters the perception and response to pain
- Causes generalized CNS depression
Opioids - Continued

- BBW: Has the potential for abuse, addiction and misuse
  - Controlled Substances - special prescribing regulations
- BBW: Respiratory depression
- Class side-effects: sedation/drowsiness, constipation, nausea, pruritus
Short-acting Opioids vs Long-acting Opioids

- Short-acting opioids are better for acute pain
- Short-acting opioids reinforce the cycle of discomfort and dysfunction due to their rapid onsets and their rapid loss of action
- Short-acting opioids have greater fluctuation in blood levels when compared to long-acting opioids
Opioid Side Effects

- Constipation
- Nausea/vomiting
- Respiratory Depression
- Allergies
Oxycodone

- All doses should be titrated to appropriate effect

- Available as immediate release and extended release formulations
  - Immediate release Dosing: 5-15mg Q 4 - 6 hrs PRN, use lowest dose possible to control pain
  - Extended Release Dosing: 10mg - 80mg Q 12 hrs routine
    - Doses > 40mg/dose or 80mg/day are only for opioid tolerant patients
    - Opioid Tolerant Pts: 60mg PO morphine daily, 30mg PO oxycodone daily, Fentanyl Patch 25mcg/24hr or another equivalent opioid dose for at least 1 week
Oxycodone - Continued

- Tolerance can occur
  - Occurs over time, need a higher dose to provide the same relief that a lower dose previously provided
Fentanyl Patch

- Active Drug: Fentanyl (available in multiple different preparations)
- Very Potent drug (mcg dosing vs mg dosing for other opioids)
- Dosing: 12mcg to 100mcg patches available
  - Titrate to effect
  - Apply patches every 72 hrs, REMOVE old patch before placing new patch
Fentanyl Patch - Continued

- Medication is absorbed through the skin, so you do not need to place patch “where it hurts”
- Clip (do no shave) excess hair before application
- Apply to intact, non-irritated skin on chest or upper/outer arm
- Press patch on skin for 30 sec to ensure adhesion
Fentanyl Patch - Continued

- Apply a new patch if the old one falls off
- Can cover with First Aid Tape or Tegaderm if patch has trouble staying on
- Do not cut patch
- Some patients may require patches to be changed Q 48 hrs
- Avoid external heat sources (heating pads, electric blankets, hot tubs, heat lamps)
  - Could cause increased absorption
Opioid Induced Constipation

- Monitoring
- Prevention
  - Water
  - Fiber
  - Laxatives
  - Relistor (methylnaltrexone)
    - Indicated for Opioid induced constipation
    - Once daily oral or injectable
Adjuvants

General Principles

- Use the right one
- Titrate one medication at a time
- Watch of additive side effects
- Increase slowly
Adjuvants - continued

- Anticonvulsants
  - Gabapentin
  - Pregabalin
  - Carbamazepine

- Antidepressants
  - Duloxetine
  - Amitriptyline

- Antihistamines
  - Hydroxyzine

- Miscellaneous
  - Baclofen
  - Bisphosphonate
  - Calcitonin
  - Corticosteroids
Specialized Pain Treatments

- **Bone Pain**
  - Dull, Aching, Localized
  - NSAID with/without opioid
  - Bisphosphonate

- **Neuropathic Pain**
  - Burning, aching, extremely painful, shock
  - Corticosteroid with/without opioid
  - With/without antidepressant or anticonvulsant
  - Adjuvants
Specialized Pain Treatments

Muscle Spasms and Spasticity

- Diazepam
- Baclofen

Local Anesthetics/Topicals

- EMLA
- Lidoderm
- Sprays/Creams
- Capsaicin - Counterirritant
Non-Pharmacological Treatments

- Ice/Heat
- Massage
- PT
- Acupuncture
- Chiropractor
- Relaxation
- Music
- Aromatherapy
- TENS
- Repositioning
- Distraction
Non-Pharmacological Treatments

- Pet Therapy
- Virtual reality
- Meditation
- Yoga
- Dry needling
- Spiritual Support and comfort
- Coping techniques
- Education
- Art
Pharmacogenomics

- **CYP 2D6**
  - 25% of drugs use this pathway
    - Tramadol and Codeine
  - 29% of Ethiopians are ultra-rapid metabolizers
Pharmacogenomics - continued

- CYP 2C9
  - NSAIDs
  - Caucasians highest percentage of poor metabolizers
    - Side effects
    - Decreased doses
    - Polymorphisms
Pharmacogenomics - continued

- **OPRM1**
  - G allele - can indicate better pain tolerance

- **OPRK1 & OPRD1**
  - Show a relation with potential addiction and dependence
Pharmacogenomics - continued

- **COMT**
  - Breaks down adrenaline and dopamine, these modulate pain.
  - This can cause increased perception or decreased perception of pain

- **5HTT**
  - Serotonergic system modulates depression. Serotonin works with analgesic agents to reduce pain; chronic pain patients are more likely to develop depression which will respond to treatment
  - Knowing about a genetic predisposition to depression may affect the way we want to treat pain
Effective Pain Management

- Identify
  - Baseline knowledge
    - Staff AND Families
  - Needs
  - Attitudes
  - Competency

- Educate
  - Dispel myths
  - Multi-disciplinary

- Measure and Assess
Solutions for Everyone

► Display a caring attitude
► Talk to the resident (regardless of comprehension)
► Talk TO the resident
► Communicate about what works
► Take care of basic needs
Conclusion and Other Caveats

- Use non-pharmacological treatments
- Be clear about the use of multiple PRNs
- Watch for Side Effects
- Assess & Document
- Who’s responsible?
Questions?