



# Making Pain Management Less Painful

**Rob Leffler, R.Ph.**  
**March 18, 2019**

# 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

# The Opioid Crisis

- When did the Opioid Crisis start?
  - The Late 1800s
  - Bayer company initially moved forward with this drug in Germany over another recently discovered product, Aspirin
  - They were trying to synthesize Codeine – presented as 10x more potent as a cough medicine and more effective for pain than morphine.
  - And presented as having almost no toxic effects – including being non-addictive



<http://www.todayifoundout.com/index.php/2012/02/the-pharmaceutical-company-bayer-coined-the-name-heroin-and-marketed-the-drug-as-a-non-addictive-cough-medicine/>  
(accessed 10/3/18)

# The Opioid Crisis

- For cough over pain?
  - Leading causes of death at the time were pneumonia and tuberculosis
  - Allowed for proper rest – without coughing
- Marketing was only to physicians but by the end of one year it was available in a variety of routes and over 23 countries.
  - Bayer produced about a ton that first year
  - By 1913 the addiction rates were skyrocketing and Bayer would eventually stop producing the drug



<http://www.todayifoundout.com/index.php/2012/02/the-pharmaceutical-company-bayer-coined-the-name-heroin-and-marketed-the-drug-as-a-non-addictive-cough-medicine/>  
(accessed 10/3/18)

# Risks of Opioid Use



- Falls and Death in Older Adults
  - Canadian Medical Association Journal linked falls and death in older adults is linked to opioid use
    - Opioid use 2 weeks before an injury in 65 years and older
    - Increased risk of falling by 2.4 times
    - Falls linked to opioid use were also more likely to die in the hospital

[https://eurekalert.org/pub\\_releases/2018-04/cmaj-oul041718.php](https://eurekalert.org/pub_releases/2018-04/cmaj-oul041718.php)

# Opioid Crisis - Pharmaceuticals



POLITICS > COLORADO POLITICS

Colorado sues Oxycontin maker Purdue  
crisis

HEALTH NEWS

Attorney General Cynthia

New York  
Pharm

## *Origins of an Epidemic: Purdue Pharma Knew Its Opioids Were Widely Abused*

The New York Times

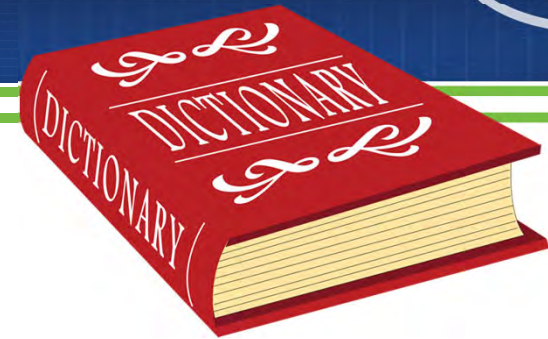
over its role in opioid

A confidential Justice Department report found the company was aware early on that OxyContin was being crushed and snorted for its powerful narcotic, but continued to promote it as less addictive.

# 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

<https://www.merriam-webster.com/dictionary/pain>, Accessed 10/2/17

# 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
  - 3<sup>rd</sup> party rules
- Effects on the health care center
  - Reputation
  - Referrals

# How do we miss pain?

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



# Pain & Aging



- Five star rating system
  - Antipsychotic use – “Not due to a medical condition or problem (e.g. pain...)”<sup>1</sup>
- Pain is not a normal part of aging
- Fifth Vital Sign

1. <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/Survey-and-Cert-Letter-13-35.pdf> Accessed 5/10/17

# Impact of Pain



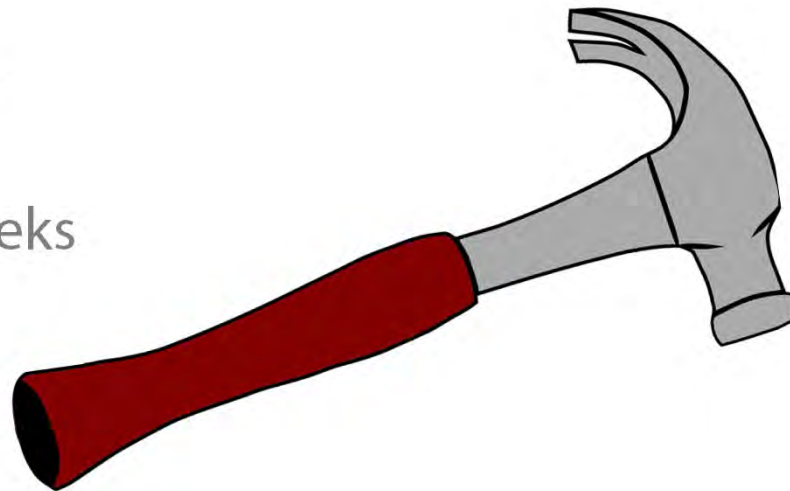
- Journal of the American Geriatrics Society looked at the impact of pain on outcomes
  - A review of LTC facilities in Missouri in retrospective analysis
  - MDS; Activities of Daily Living Scale, Cognitive Performance Scale
  - Pain was associated with
    - Physical disability
    - Pressure ulcers
    - Depression
    - Cognitive

Newland, P. K., Wipke-Tevis, D. D., Williams, D. A., Rantz, M. J. and Petroski, G. F. (2005), Impact of Pain on Outcomes in Long-Term Care Residents with and without Multiple Sclerosis. *Journal of the American Geriatrics Society*, 53: 1490-1496. doi:10.1111/j.1532-5415.2005.53465.x

# Types of Pain - Acute

- Acute Pain

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



1. Carr DB, Goudas LC. Acute pain. Lancet. 1999; 353:2051-2058

# 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 1<sup>st</sup> 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

# 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

# WHO Pain Ladder

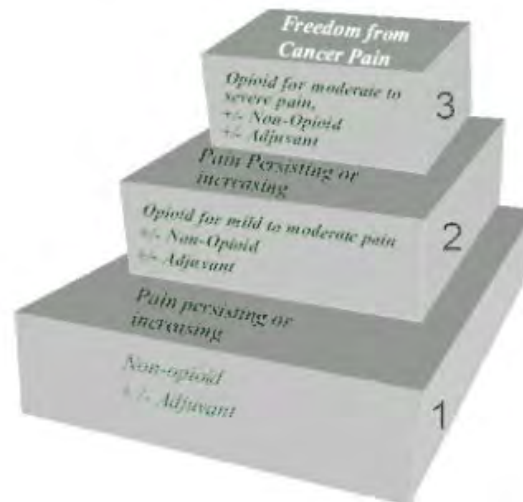


- Three step ladder
- Designed for treating cancer pain
- Step 1: non-opioids
- Step 2: mild opioids (codeine)
- Step 3: Strong opioids (morphine)



# WHO Pain Ladder

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



# 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

# 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

# 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.***

# F697 – Pharmacological Interventions



- Summary –
  - 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 . . .**

## F697 – 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 . . .**

- 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 - Dementia



## Pain Assessment in Advanced Dementia (PAINAD) Scale

| Items*                                       | 0                       | 1   | 2   | Score |
|--|-------------------------|---|---|-------|
| <b>Breathing independent of vocalization</b> | Normal                  | Occasional labored breathing. Short period of hyperventilation.                     | Noisy labored breathing. Long period of hyperventilation. Cheyne-Stokes respirations. |       |
| <b>Negative vocalization</b>                 | None                    | Occasional moan or groan. Low-level speech with a negative or disapproving quality. | Repeated troubled calling out. Loud moaning or groaning. Crying.                      |       |
| <b>Facial expression</b>                     | Smiling or inexpressive | Sad. Frightened. Frown.   | Facial grimacing.   |       |
| <b>Body language</b>                         | Relaxed                 | Tense. Distressed pacing. Fidgeting.  | Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out.        |       |
| <b>Consolability</b>                         | No need to console      | Distracted or reassured by voice or touch.  | Unable to console, distract or reassure.  |       |
| <b>Total**</b>                               |                         |   |   |       |

<https://www.ncbi.nlm.nih.gov/pubmed/12807591>

# Pain Assessment – The Interview



## The Pain Interview

### ABCDE Mnemonic

- A Ask about pain regularly; Assess pain systematically
- B Believe the patient and family in their reports of pain
- C Choose pain control options appropriate for the patient, family, and setting
- D Deliver interventions in a timely, logical, and coordinated fashion
- E Empower patients and their families

<https://www.uspharmacist.com/article/pain-assessment-in-the-elderly>

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# Pain Assessment - Mnemonic

## PQRST Mnemonic

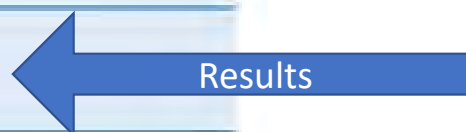
**P** Palliative/provocative factors  
What makes the pain better/worse?

**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?



<https://www.uspharmacist.com/article/pain-assessment-in-the-elderly>

# Pain Assessment – FLACC Scale



| FLACC scale (Face, Legs, Cry, Activity Consolability scale)  | Score |
|--|-------|
| <b>Face</b><br>0- No particular expression or smile<br>1- Occasional grimace or frown, withdrawn, disinterested<br>2- Frequent to constant frown, quivering chin, clenched jaw |       |
| <b>Legs</b><br>0- Normal position or relaxed<br>1- Uneasy, restless, tense<br>2- Kicking or legs drawn up  |       |
| <b>Activity</b><br>0- Lying quietly, normal position, moves easily<br>1- Squirming, shifting back and forth, tense<br>2- Arched, rigid, or jerking                             |       |
| <b>Cry</b><br>0- No cry (awake or asleep)<br>1- Moans or whimpers; occasional complaint<br>2- Crying steadily, screams or sobs, frequent complaints                            |       |
| <b>Consolability</b><br>0- Content, relaxed<br>1- Reassured by occasional touching, hugging, or being talked to; distractible<br>2- Difficult to console or comfort            |       |
| <b>Total score (0-10)</b>  |       |

<https://www.uspharmacist.com/article/pain-assessment-in-the-elderly>

# 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

# Route Selection



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

## Agents to avoid

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



# 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 hypothalamic 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

- 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)

# 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

# Opioid Induced Constipation



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

## 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

# Pain and Sleep

## Or . . . Sleep and Pain



- There is a LOT of evidence that pain and sleep are related
  - The exact mechanism is not clear
  - In reviewing studies there is a key trend
    - Sleep impairments reliably predict new and exacerbations of chronic pain
    - And sleep impairment is more likely to predict pain than the reverse
    - The thought is that sleep disturbance impairs processed that otherwise lead to developing and maintaining chronic pain

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4046588/> (accessed 10/3/18)

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# Chronic Pain Treatment Study



- JAMA – March 2018
- Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients with Chronic Back Pain or Hip or Knee Osteoarthritis Pain
  - 240 patients
    - Important – limited comparisons currently exist
  - Compare opioids vs nonopioids
    - Pain-related functions
    - Pain intensity
    - Adverse effects

Krebs EE, Gravely A, Nugent S, et al. Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain The SPACE Randomized Clinical Trial. *JAMA*. 2018;319(9):872–882. doi:10.1001/jama.2018.0899

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# Chronic Pain Treatment Study - continued



- Pragmatic trial (not prescriptive)
  - Treat to target
  - IR
- Patients treated with opioids
  - Had increased pain sensitivity
  - Had more Adverse drug reactions
- Result
  - Opioids were not superior for pain related function
  - Pain intensity was better in the non-opioid group
  - ADRs were more common in the opioid group

Krebs EE, Gravely A, Nugent S, et al. Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain The SPACE Randomized Clinical Trial. *JAMA*. 2018;319(9):872–882. doi:10.1001/jama.2018.0899

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# Effective Pain Management



- Identify
  - Baseline knowledge
    - Staff AND Families
  - Needs
  - Attitudes
  - Competency
- Educate
  - Dispel myths
  - Multi-disciplinary
- Measure and Assess

# 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?



# Thank you!

**Rob Leffler, R.Ph.**  
**Vice President of Clinical Services**  
**p: 502.266.2528**  
**e: 502.309.3386**