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

QUIZ

1) According to the National Center for Health Statistics, in 2006, what percent of Americans suffered from pain lasting longer than 24 hours?

QUIZ

2) According to the National Nursing Home Survey from 2004, what how many residents reported or showed signs of pain.

https://stacks.cdc.gov/view/cdc/5714/Share

QUIZ

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

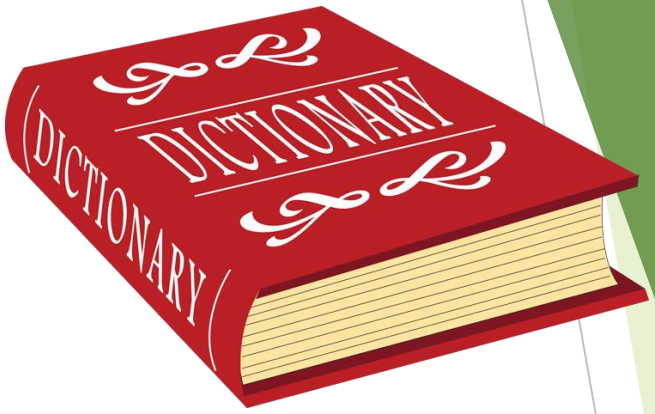
QUIZ

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

- https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_pp_guidelines_ltcf.pdf
- 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

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

What is pain?

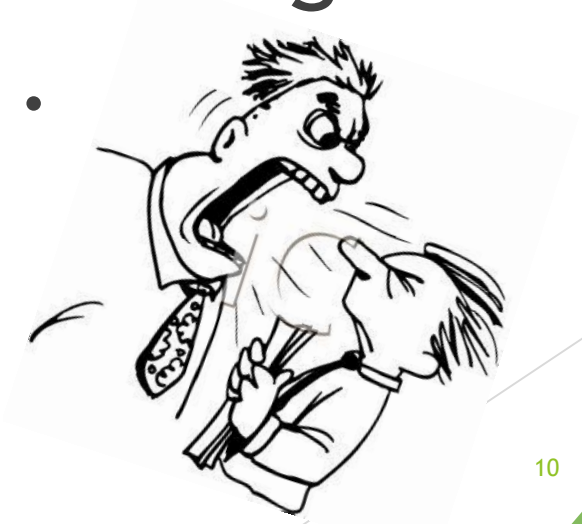
- Unpleasant
- Subjective
- Pain is what the resident says that it is
  - But in facilities, residents are notorious for not verbalizing their pain
  - Actions speak louder than words

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
  - 3rd party rules
- Effects on the health care center
  - Reputation
  - Referrals

Impacts of pain

- Physical
- Spiritual
- Social
- Psychological

Physical Impact

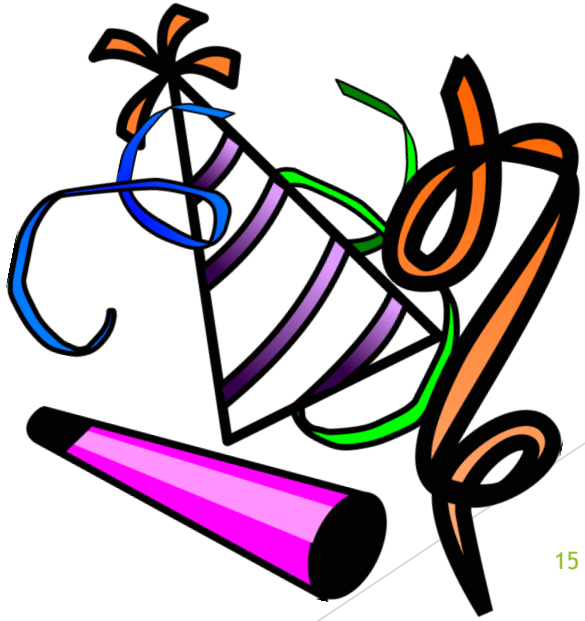
- Decrease in functional capabilities
  - ROM limitations
- Strength and endurance declines
- Nausea
- Appetite declines
  - Weight loss
- Sleep
  - Sleep cycle
- Skin
  - Breakdown

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

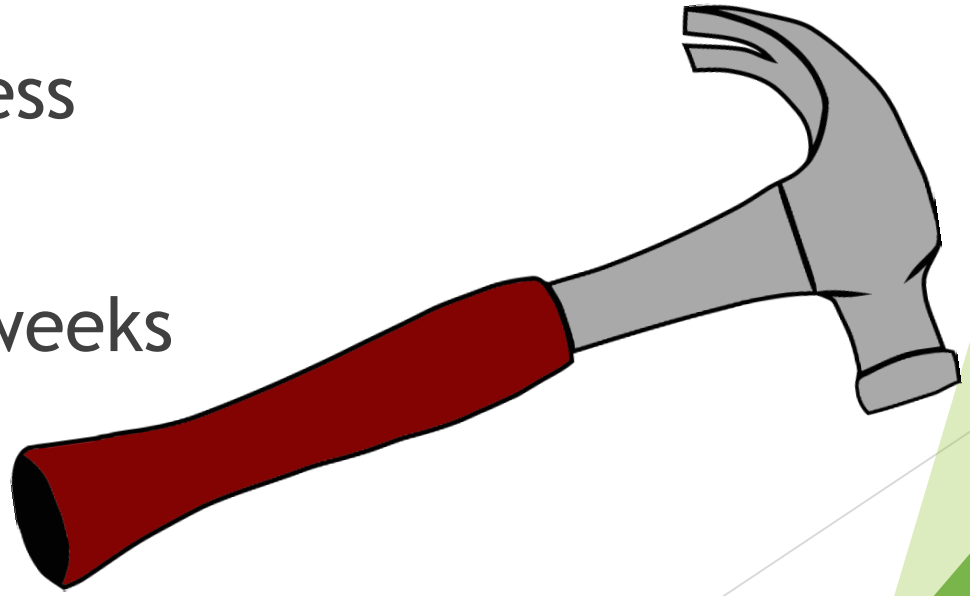
Newland, P. K., Wipke-Tevis, D. D., Williams, D. A., Rantz, M. J. and Petroski, G. F. (2005), Impact of Pain on Outcomes in Long-Term Care Residents with and without Multiple Sclerosis. Journal of the American Geriatrics Society, 53: 1490–1496. doi:10.1111/j.1532-5415.2005.53465.x

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



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 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…)”[1]
- 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

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."***

F697

§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.

F697

- **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

F697

- **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.

F697

- **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;

F697

- **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.

F697

- 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.

F697

- **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.

F697

- **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;

F697

- **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.

F697

- ***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 . . .

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 - Dementia

Pain Assessment in Advanced Dementia (PAINAD) Scale

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

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

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?

Results

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

Pain Assessment – FLACC Scale

Table 2

The FLACC Scale

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

Source: Reference 20.

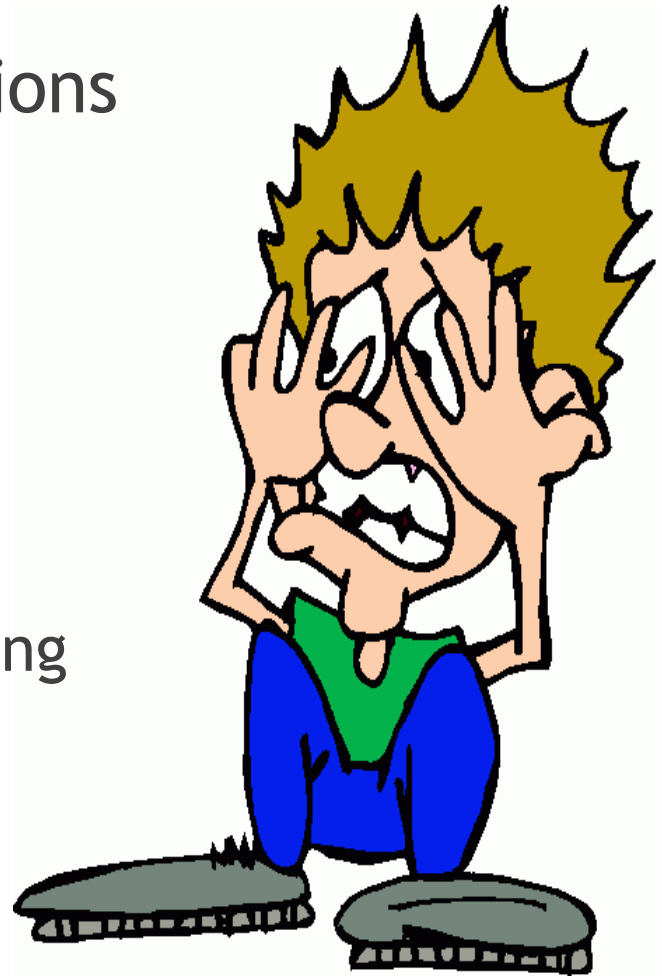
https://www.uspharmacist.com/article/pain-assessment-in-the-elderly

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

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
- Parental – 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

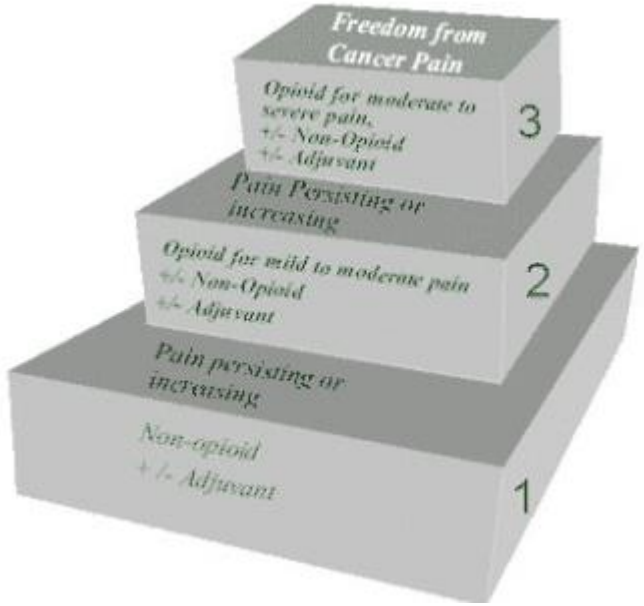
- Talwin – low activity, hallucinations, delirium, agitation
- Meperidine (Demerol) – short duration of action, seizures, erratic and variable absorption orally

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 throught 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

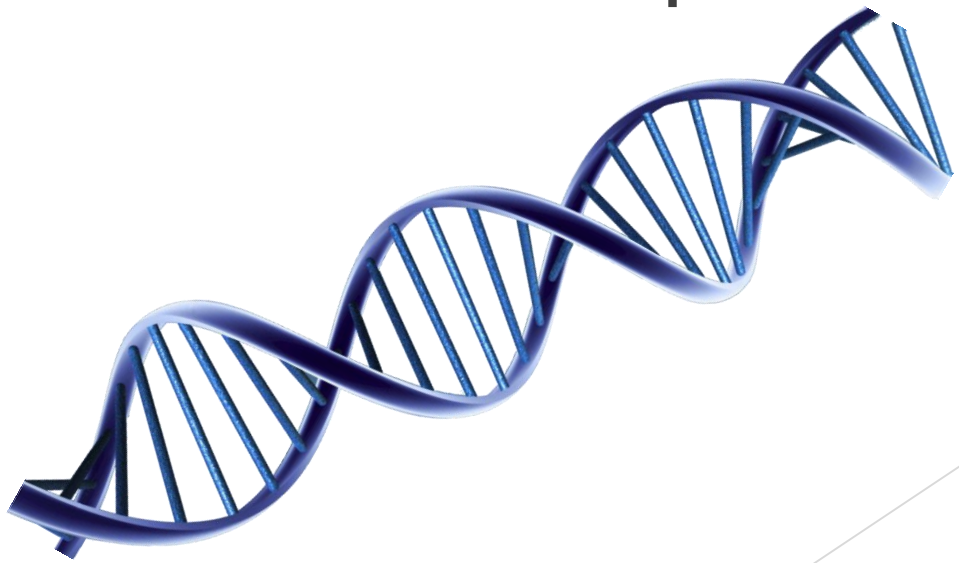
- Ice/Heat
- Massage
- PT
- Acupuncture
- Chiropractor
- Relaxation
- Music
- Aromatherapy
- TENS
- Repositioning
- Distraction

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?