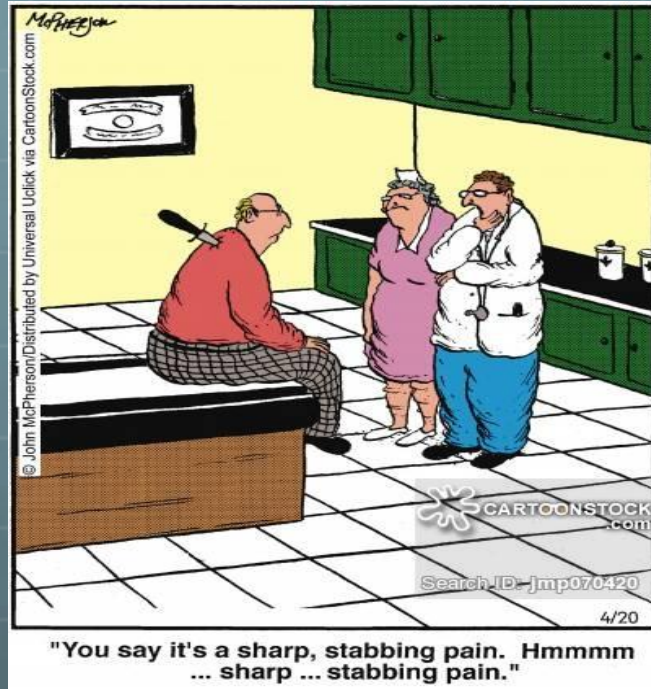


Pain Management in the Elderly

Martha Watson, MS, APRN, GCNS
Christie Bowser, RN-BC, RN

Objectives



So How Much Do You Really Know?

www.geriatricpain.org

Geriatric Pain Knowledge Assessment

- The Geriatric Pain Knowledge Assessment is designed to test your baseline knowledge of important concepts related to pain in older adults who reside in nursing homes. The assessment will help identify your nursing knowledge strengths and additional learning you may need to increase your clinical knowledge and improve the quality of care you provide.
- The 46 true/false and multiple choice questions in this assessment are based on **19 evidence-based competencies and resources** developed by the [web site authors](#).
- The questions are based on case studies of older adults with acute pain, persistent pain and neuropathic pain. An additional case study addresses pain in a cognitively impaired individual.
- This assessment is appropriate for both LPN/LVNs and RNs and is available online.

So How Much Does Everyone Else Really Know?

WELL – THIS ABOUT SUMS IT ALL UP.....

****Rastogi, R & Meek B.**
Management of chronic pain in elderly, frail patients: finding a suitable, personalized method of control. *Clinical Interventions in Aging.* 2013; 8: 37-46

- Minimal research on age specific studies for the elderly
- No standardized management outcomes for many health problems
- Pain management is inconsistent and suboptimal
- Studies are now being directed toward pain control in the elderly

Older adult: age 65 and older...

- 🌐 **Medicine has increased life expectancy**
- 🌐 **More chronic illness & disability**
 - 🌐 30-50% of older adults have 2 or more health problems
 - 🌐 >85 years rises to 50-75%
- 🌐 **Increase in aging population (projected to be 20% by 2030)**
 - 🌐 **Health care system failure**
 - 🌐 physical, social, economic stress

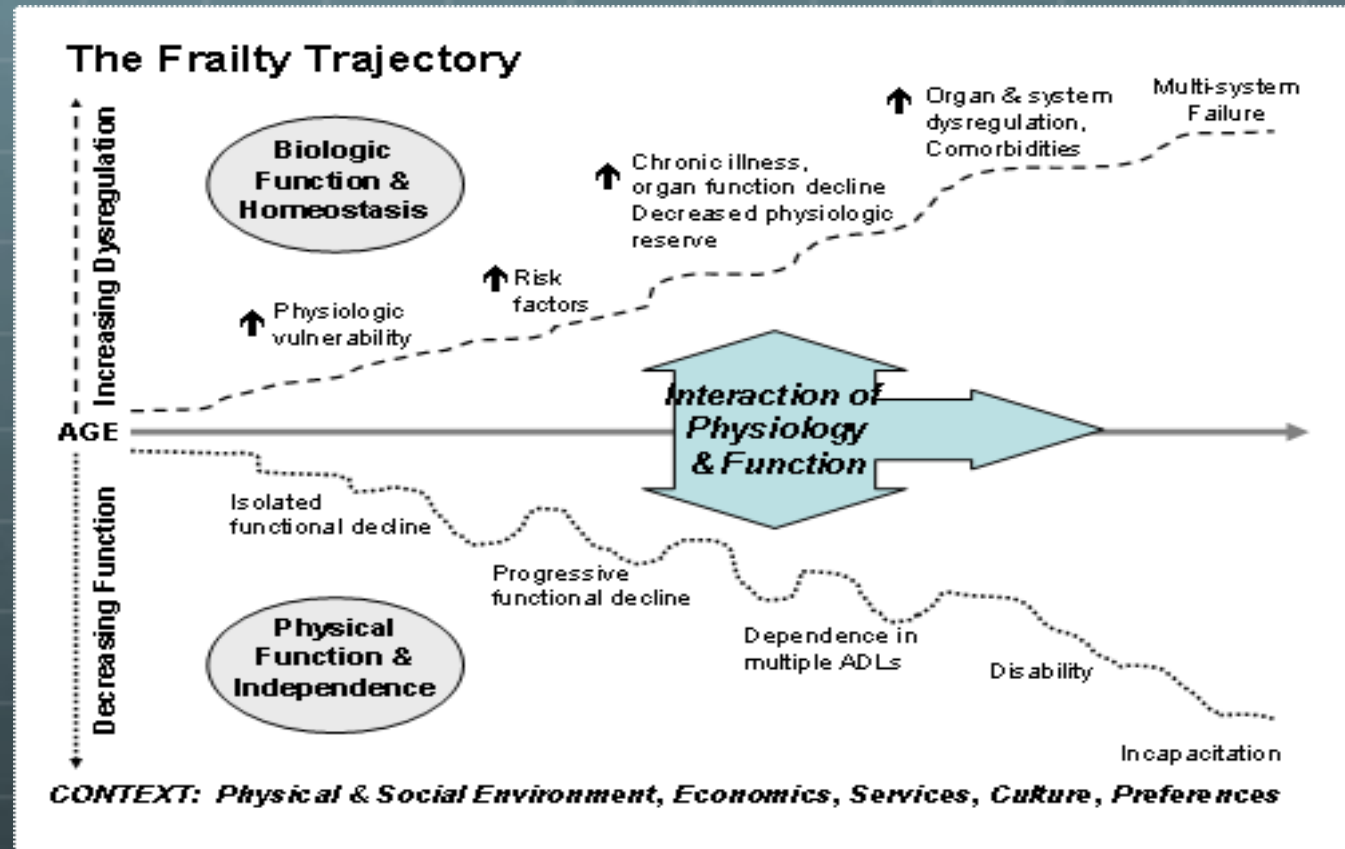
**SO –we are living longer, and in
general healthier... BUT....**

Older, and with MORE chronic illness and more comorbidities....

Frailty

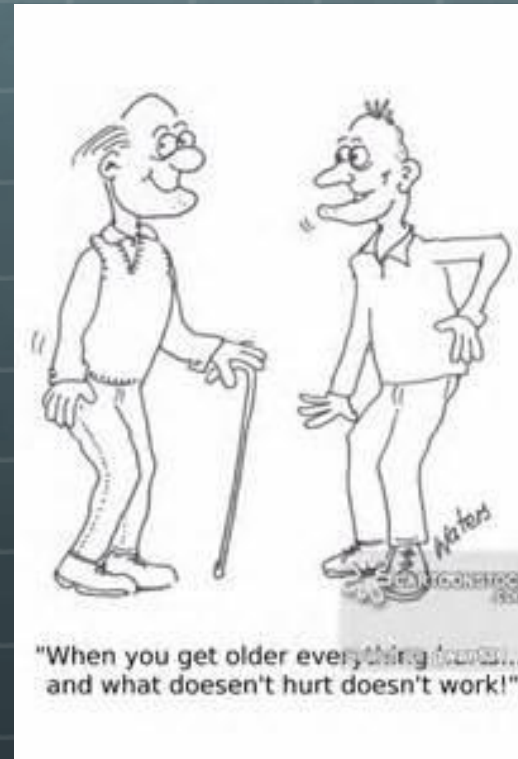
- Vulnerability to adverse health outcomes due to physiologic change characterized by decreased ability to respond to stressors
- Frailty is diagnosed by presence of 3/5 factors:
 - Weight loss
 - Extreme fatigue
 - Weakness in hand grip
 - Slow walking speed
 - Low physical activity
- Common: altered cognition, depression, loss of muscle mass

Frailty



Geriatric Pain

- Prevalence: 50-75%, yet underdiagnosed & undertreated
- Downward spiral of pain:
 - Impaired ADLs
 - Mood disturbances
 - Decreased ambulation
 - Cognitive alteration
- Which then leads to...
 - DVT
 - PE
 - Fractures
 - Poor quality of life



View of Overall State of Pain

- 🌐 Pain is unpleasant, subjective, multifaceted, biopsychosocial experience.
- 🌐 It encompasses sensory-discriminative, affective-motivational, and cognitive-interpretive dimensions.
- 🌐 Each of these components is influenced by physical, psychological, social and spiritual factors.
- 🌐 To achieve effective pain control, all of these factors should be addressed.

Challenges in Geriatric Pain Management



Pain Process

- 🌐 No different in older adults
- 🌐 Nociception – stimulation of peripheral pain receptors
- 🌐 Pain transmission – traveling of pain signals through C- and A-delta fibers from the periphery to the dorsal horn and ascending in the spinal tracts to the central level
- 🌐 Pain Modulation – modulation of pain signals along the neuroaxial pain pathway
- 🌐 Pain perception – projection of the pain signal onto the somatosensory cortex

Physiologic changes with aging that alter pharmacodynamics and pharmacokinetics



System	Changes	Effect	Effect of drug use
GI	Altered secretions, < blood flow, altered motility & absorptive surfaces	Altered drug absorption, bioavailability, transit time	Altered oral bioavailability
Liver	Small liver mass, < hepatic blood flow, < hepatic enzymes, protein synthesis, regeneration rate	< serum albumin & metabolism of drugs (by 30-40%)	Increased bioavailability, higher toxicity risk
Cardiac	< cardiac index	Rapid & high drug peak	Higher toxicity risk
Renal	<size, renal blood flow, renal function (<1% per year after age 50)	< renal elimination	Required dose adjustment
General	>body fat, <body water	>volume of distribution for lipophilic medication, >plasma concentration of hydrophilic drugs	Delayed elimination & onset of drug action, higher frequency of side effects

Barriers

Patient

- 🌐 Misconceptions
- 🌐 Fear
- 🌐 Personality
- 🌐 Personal
- 🌐 Comorbidities



Barriers

Medical Professional

- 🌐 Lack of knowledge/training
- 🌐 Lack of standardized guidelines
- 🌐 Personal biases
- 🌐 Time constraints

BOX 18-2 The PQRST pain assessment

P—presence of pain “Are you hurting today?”

Q—quality “What words describe your pain?” (i.e., sharp, burning, tingling ...)

R—radiation/location “Where is your pain? Does it shoot or radiate anywhere else?”

S—severity “Give me a number between 0–10 for your pain.”

T—timing “How long have you had this pain? How long does it last when the pain comes?”

Barriers

Health care system

- 🌐 Accessibility
- 🌐 Facility and health care deficiencies

Medications/interventions

- 🌐 Insurance coverage
- 🌐 Geographic availability
- 🌐 Off-label usage
- 🌐 Medicine



Adverse Effects

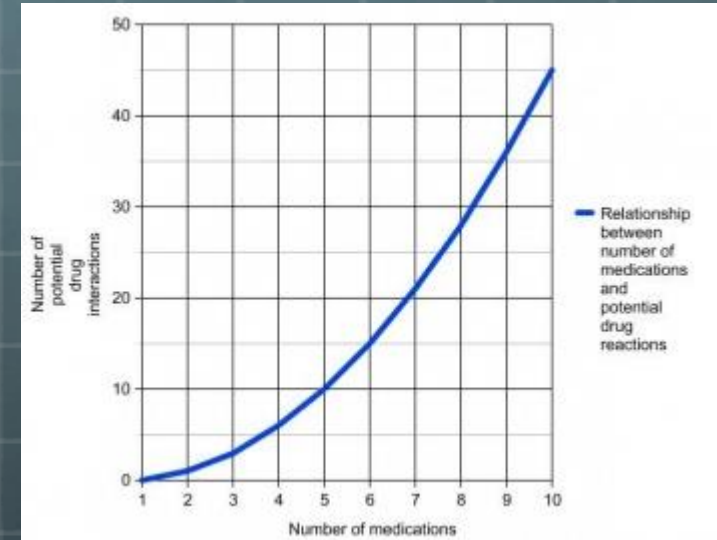
🌐 Incidence 6-30%

🌐 Polypharmacy

🌐 Compliance

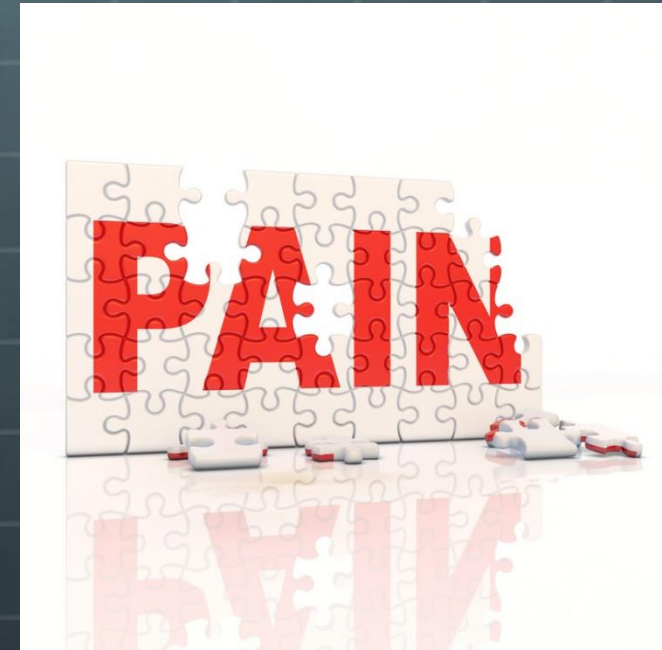
🌐 Variances related to age-related drug metabolism

🌐 Refer to Beers Criteria for appropriate medication for the elderly



Therapeutic Failure

- 🌐 “given medication, but unable to achieve goal of therapy”
 - 🌐 Therapeutic failure
 - 🌐 Poor adherence to medication
 - 🌐 Inadequate dosing
 - 🌐 Drug interactions
 - 🌐 Unaffordable medications



So..how are we really going to manage this

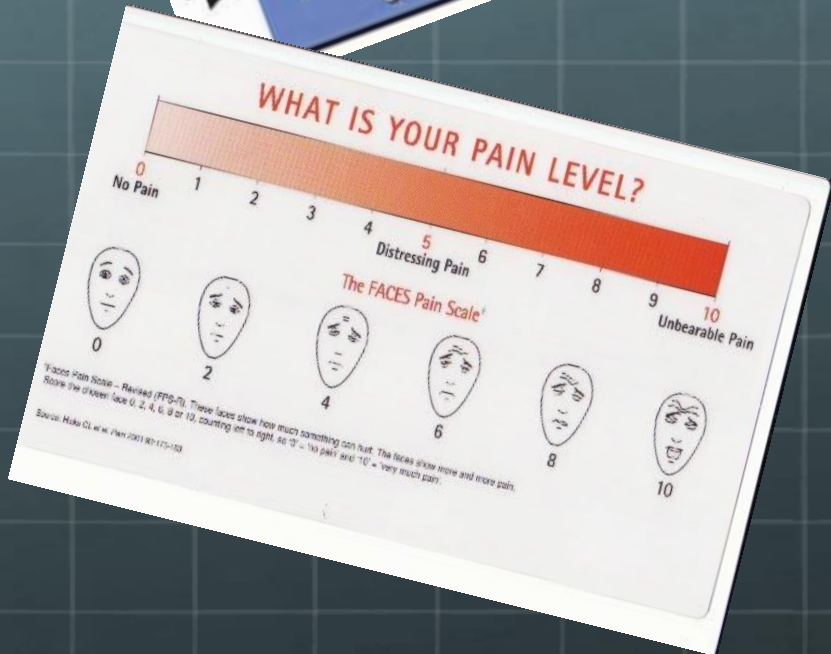


Pain Assessment

- Self reporting is the most reliable source
 - When unavailable due to cognitive impairment, observation of patient's behavior becomes assessment tool
- Ongoing comprehensive pain assessments
- Comparing repeated interactions with healthcare providers
- Thorough physical exam
- Pain scales
- Impact of pain on the patient
 - Mood, coping skills, ability to perform ADLs, use of aids, social and family interactions, etc. should be evaluated before pain management plan is developed

Pain Assessment.....

How To
try this



FORM 3.2 Brief Pain Inventory

Date: / / Time: /

Name: Last First Middle Initial

1) Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?
1. Yes 2. No

2) On the diagram shade in the areas where you feel pain. Put an X on the area that hurts the most.

3) Please rate your pain by circling the one number that best describes your pain at its **worst** in the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
No pain Completely interferes

4) Please rate your pain by circling the one number that best describes your pain during the past 24 hours.

0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

5) What treatments or medications are you receiving for your pain?

6) In the Past 24 hours, how much relief have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received

0% 10 20 30 40 50 60 70 80 90 100%
No relief Complete relief

7) Circle the one number that describes how, during the past 24 hours, pain has **interfered** with you:

A. General activity
0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

B. Mood
0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

C. Walking ability
0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

D. Includes both work outside the home and work at home
0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

E. Interferes with other people
0 1 2 3 4 5 6 7 8 9 10
Does not interfere Completely interferes

Table 4 Common Pain-Associated Behaviors

Body movements	0	1	2	3	4	5	6	7	8	9	10
Fidgeting, restlessness											
Gait changes, rigid body posture											
Guarding											
Repetitive movements (e.g., pacing, rocking)											
Restrictive movement											
Facial expressions	0	1	2	3	4	5	6	7	8	9	10
Facial distortion											
Frowning, frightened face, grimacing											
Rapid blinking or tightly closed eyes											
Changes in:	0	1	2	3	4	5	6	7	8	9	10
Activity: Increased sleep, changes in sleep pattern, decreased appetite, refusal of food, cessation of common routines											
Personal interactions: Aggressive, agitated, combative, disruptive, or socially inappropriate and withdrawn behaviors											
Mental status: Crying, tearfulness, depression, distress, increased confusion											
Verbalizations, vocalizations	0	1	2	3	4	5	6	7	8	9	10
Asking for help											
Calling out											
Chanting, grunting, groaning, moaning											
Noisy breathing, sighing											
Verbal abuse											

Source: Adapted from references 8, 9.

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, Shaking out.	
Consolability	No need to console	Distraught or reassured by voice or touch.	Unable to console, distract or reassure.	
				Total**

Table 1 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

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?

Source: References 8, 9.

Hierarchy of Pain Assessment

- 1.) Patient report
- 2.) Behavioral assessment tool
- 3.) Caregiver's assessment report
- 4.) Listing of pharmacological and nonpharmacological interventions & outcomes

Pain Management

- 🌐 **Must be individualized**
- 🌐 **Control pain**
- 🌐 **Improve function**
 - 🌐 **What can you do now?**
 - 🌐 **Is there anything you don't do now?**
 - 🌐 **What is your daily routine like?**



Non-Pharmacological Treatment

General Principles

- Coping
- Improvement Daily Function
- Multimodal treatment always needs to be considered
 - Physical Therapy
 - Occupational Therapy
 - Psychobehavioral Therapies
 - Pastoral Consultation
 - Social Work Consultation
 - Nutrition Consult

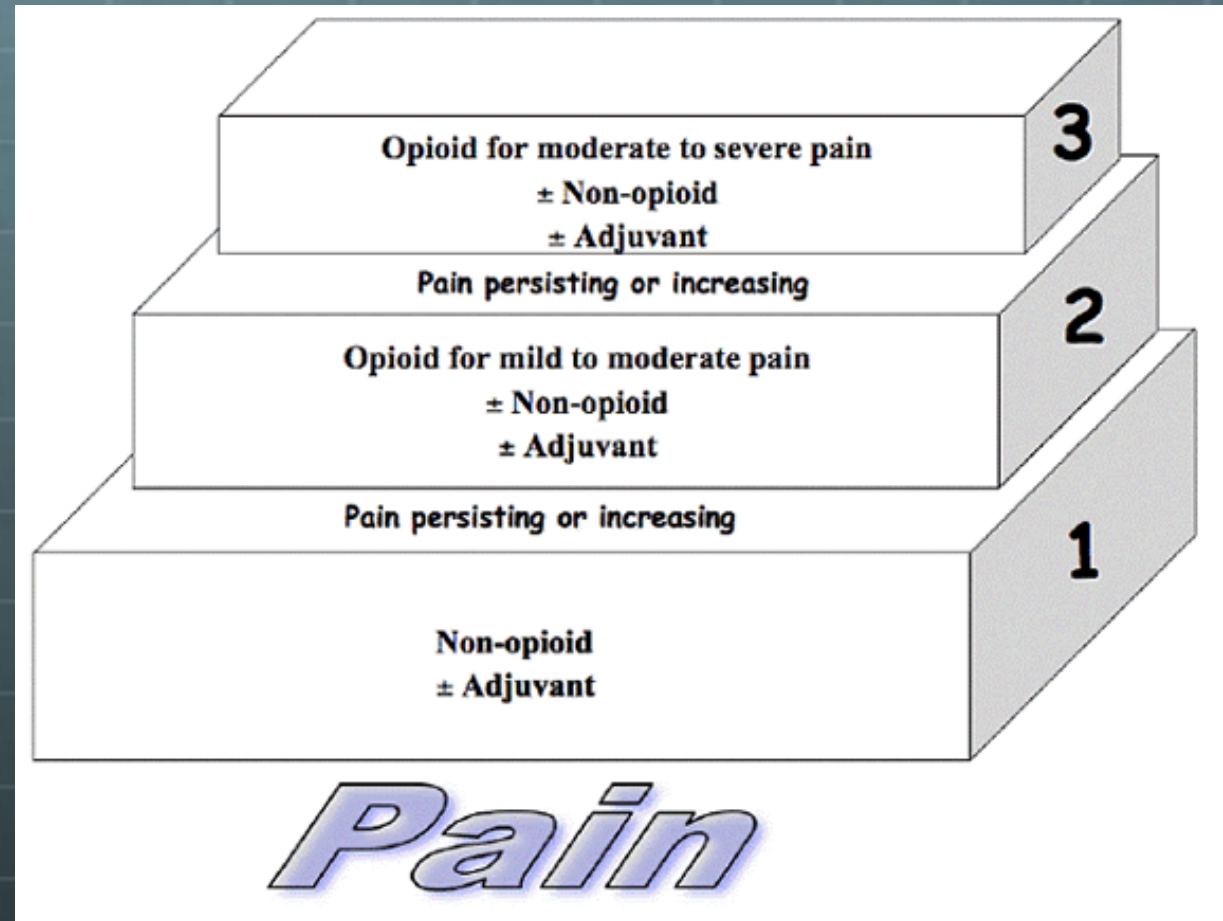
Pharmacological Treatment

General Principles

The first line treatment should be determined by the particular type of pain

- 🌐 Use the least invasive delivery route should be the priority
- 🌐 Start at lowest effective dose, with gradual and slow titration
- 🌐 Consider “Around the Clock” treatment instead of PRN dosing as part of a closely monitored therapeutic trial

The WHO Analgesic Ladder



START LOW AND GO SLOW!!!!



Avoid in the Elderly

- 🌐 Strong opioids
- 🌐 NSAIDS
- 🌐 Tricyclic antidepressants



Nonopioid Analgesics

- Acetaminophen – initial analgesic for mild or persistent pain
 - Coanalgesic – potentiates the effect of opioids
 - Limit to 2,000mg(3000mg)/day due to liver or renal impairment
 - Ceiling effect
- NSAIDS – avoid due to GI effects, renal & cardiac dysfunction
 - Recommend a PPI
 - Topical is safer
- Steroids





Opioids

- Moderate to severe pain or pain related to frailty
- Mild: hydrocodone, oxycodone, and tramadol
- Stronger: morphine, oxycodone, oxymorphone, hydromorphone, fentanyl, methadone
 - Short acting 2-6 hours, long acting 8-12 (methadone is exception)
- Avoid propoxyphene, meperidine, pentazocine, & high dose tramadol

Common Opioid Side Effects

- Side effects can be managed with dose alteration, change in route of administration, change to another opioid formulation

Constipation

-  Sedation
-  Nausea
-  Endocrine dysfunction
-  Altered cognition

Adjuvants

- Pharmacological agents that were primarily developed for indications other than analgesia
- Commonly used in conjunction with other analgesics for persistent and refractory pain
- Some are drug of choice for neuropathic pain
- Commonly used: Gabapentin, Lyrica...
- **TO BE AVOIDED: Tricyclic Antidepressants**
 - Side effects: anticholinergic, cognitive impairment, cardiac dysfunction










Interventional Modalities

- 🌐 Interventions targeted to the pain pathways – either to obliterate or modulate pain signals through chemical, electrical or ablative means
 - 🌐 Usually done by an interventional anesthesiologist specially trained
- 🌐 Analgesia can also be delivered peripherally around the nerves or by delivering medication continuously with an implantable pump

Wrapping it up...

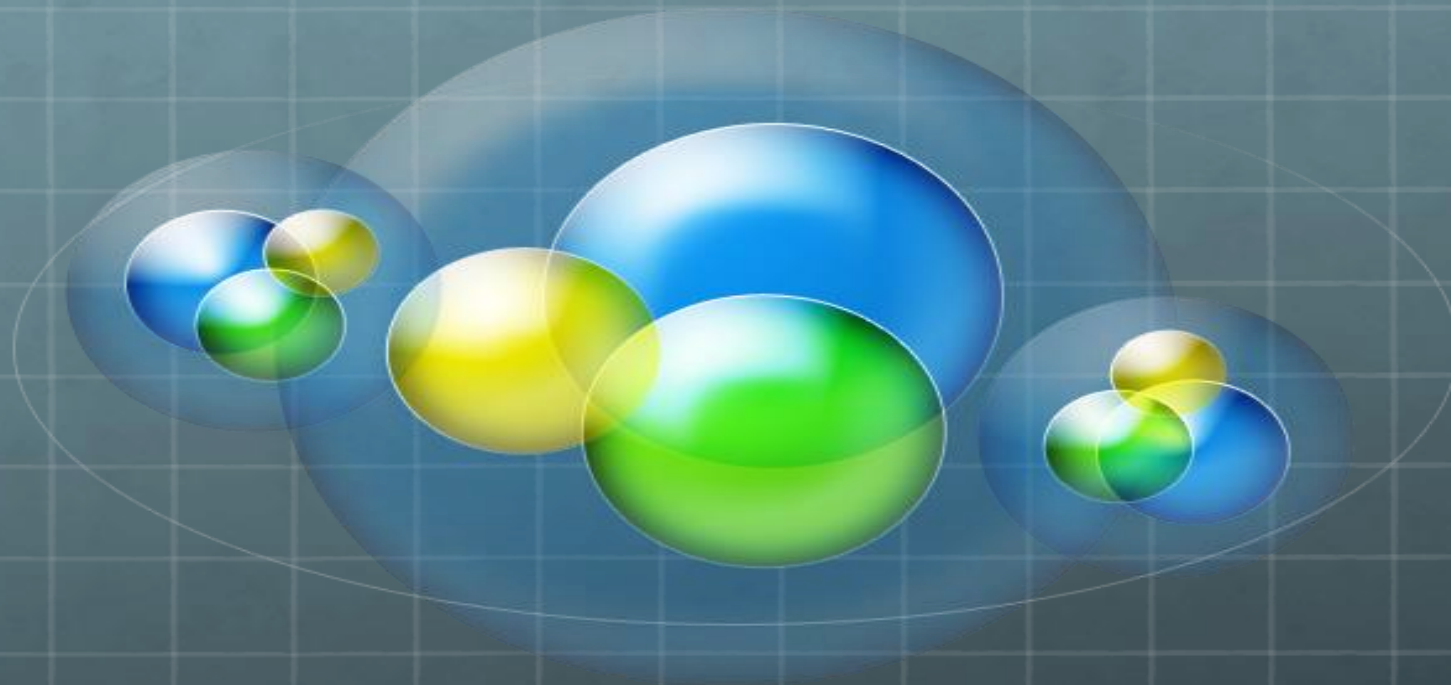
- Provide a comprehensive pain assessment
- Provide an individualized plan of care
- Use Physical and Occupational therapy
- Avoid high risk medications – see BEERS Criteria
- Avoid polypharmacy if possible
- Use least invasive drug route
- Adjust one medication at a time
- Use lowest effective dose by starting at a low dose and titrating slowly
- Allow for adequate time to evaluate the dose response
- Use multimodal treatments to get the most effective results with the least side effects
- Reevaluate after each change in plan, monitor side effects, drug-drug interactions and drug efficacy

Other Resources for Pain

-  National Guideline Clearinghouse
-  American Geriatrics Society
-  NICHE
-  Portal of Geriatrics Online Education (POGOE)
-  End of Life Nursing Consortium- Geriatric (ELNEC-Geriatric)
-  How to Try This Series (Hartford Geriatric)
-  IOM Reports: “Relieving Pain in America”
-  GeriatricPain.org
-  American Society of Pain Management Nursing (ASPMN)

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Questions?

Thank you!

