



# Pain Management in the Aging Population

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# Disclosure

- Clinical Pharmacist at Wellive Pharmacy Services in Saskatoon
- Specialty in Seniors Medicine
- I disclose that I am on salary while speaking at the conference today



# Definitions

- Pharmacist -- dispenser of medication. Provide medication information to patients.
- Clinical Pharmacist -- review patient medical information, make recommendations to patients, prescribers and drug plans to ensure clinical appropriateness of medication.





# Definitions continued

- Pain -- an unpleasant sensory and emotional experience arising from tissue damage



# Three Main Pain Types

- Classifications:
  - Acute
  - **Chronic**
  - Palliative



# Acute Pain

- Caused by injury, surgery or sudden illness
- Often intense pain that goes away -- with or without treatment
- could be osteoporosis / fracture pain
- could be stomach pain / GI pain / liver / kidney / gout
- Acute pain has its own treatment protocol



# Palliative Pain

- End of Life Care
- Comfort is the focus of treatment
- Preserve quality of life
- No concern about addiction
- Palliative Pain has its own treatment algorithm





# Chronic Pain

- Everyday Pain
- Sometimes worse sometimes better
- Present for 6 months or longer
- Common in the older population
  - Reported in 20% - 50% of patients





# Common Causes of Chronic Pain

- Joint Pain or Bone Pain
- Muscle / Tendon Pain
- Nerve Pain
- Headache
- Lower Back Pain



# Prescribing Guidelines

- Are people falling through the cracks in our healthcare system?
  - Why?
  - Are we treating people? The whole person?
- Or are we treating disease?
  - clinical trials vs. complex lives of real people
  - Lets treat the patient, not the pain



# Adjusting the Mind-Set

- I suffer (in these ways) because I have pain almost all of the time
  - or
- I want to live well despite my (background) pain
  - complete pain resolution is unrealistic in chronic pain





# Multimodal Approach

- Goal Orientation (what would success look like to you?)
- Oral Medications
- Topical Medications
- Pain Journal
- Exercise | Pacing Techniques | Relaxation Techniques (anxiety increases pain) | Stress Management (worry increases pain) | Behavior Therapy | Breathing Techniques



# Aging Organs Affect

• how we Process

• Drugs

• liver

• kidney

• GI tract

• heart

• lungs

Increasing side effects



# Our Focus for Today

- Relatively healthy older adult
- Experiencing symptoms of Chronic Pain
- Lets talk about options and solutions





# Oral Medications

- have a place in pain therapy
- adverse effects
- evaluate risks vs. benefits
- adverse effects increase with age



# Narcotics (Opioids)

- can induce a slow heart rate, weak pulse, dizziness
- increased risk of falls / fractures
- can cause confusion, hallucinations (dementia)
- increased risk of bowel obstruction & constipation
- can be habit forming people will do anything, to cure dementia...except stop taking their narcotic) (sweetest person turns into a monster- try taking away)
- can cause problems with urination



# Acetaminophen

- most popular over the counter pain medication
- commonly used for osteoarthritis of the knee or hip
- very safe for people who do not consume alcohol
- toxic if taken in quantities greater than recommended on the package
- avoid in patients with decreased liver function (reduce dose in senior population [1/2])
- #1 cause of liver failure in the USA





# NSAIDS

## Non-Steroidal Anti-Inflammatory Drug

Aspirin, Ibuprofen, diclofenac, naproxen,  
indomethacin

- Great anti-inflammatory properties
- Risk of:
  - Gastro Intestinal Upset and Bleeding
  - Cardiovascular Complications
  - Renal Impairment



# Not all Topical Medications are Equal

- Base
- Active Ingredient
- Qualified Personnel, Regulated Facility
- emerging evidence
- under-utilized
- misunderstood



# Technologically Advanced Base

- not available in all pharmacies
- how deep does it carry medication into the tissue?
- how well does it absorb into the skin?
- will patients use it? Is it pharmaceutically elegant?





# Ingredients of the Highest Quality

- are medication powders manufactured in a facility that is regulated by the FDA or Health Canada? (molecules from China cost less, but hold no guarantees)
- compounder must know how best to design a custom medication that incorporates the ingredients required
- does the pharmacy send samples away to a lab for quality assurance testing?



# Certified Compounding Personnel

- Does the compounding pharmacy require that compounding specialists be specially trained?
- Does the pharmacy have specialized equipment to ensure all molecules properly are incorporated into the cream in exact amounts?



# Benefits of Transdermal

- less adverse events
  - dizziness
  - stomach upset
  - liver
  - kidney
- less medical condition interactions
  - high blood pressure
  - heart disease
  - stomach ulcers





# Transdermal Options

- gabapentin -- nerve pain
- ketoprofen -- affinity for synovial joint space
- amitriptyline--nerve pain
- baclofen-muscle relaxant
- lidocaine -- anesthetic
- Cetyl Myristoleate -- osteoarthritis
- glutathione -- supports cartilage
- magnesium -- supports cartilage, and muscle function



# Alternative Therapies

- chiropractor
- physiotherapy
- massage
- Hot water bottle / heating pad
- Puzzles



# Supplements for Pain

- Magnesium Glycinate (less diarrhea)
- Fish Oil (small fish contain less heavy metal contamination)
- Glucosamine Sulfate
- Vitamin D
- good Multi Vitamin





# Before we move on: Summarize

- we've talked about
  - differences in processing meds as we age
  - different types of pain
  - different pain treatment options



# now lets talk about

- Money
  - cost to the patient
  - cost to society



# Two Reasons to Take Medications

- Medications that keep us well **now**
  - improve daily quality of life
    - reduce pain
    - increase energy
- Medications that prevent **future** illness
  - consider ones life expectancy
  - consider an individuals risks and benefits





# There is a Move to Reduce Medications in the Elderly

- Improve Quality of Life
- Maintain Kidney and Liver Function
- Reduce the Chance of Falls
- Reduce the Risk of Adverse Events



# The road to -- Too many meds

- knee pain
- ibuprofen added (1)
- time passes
- dr visit
- high blood pressure
- diuretic added (2)
- time passes
- gout (3,4)
- stomach pill (5)
- sleep (6)



# the cost of too many meds

- topical cream  
~\$95/m
- ibuprofen (\$10)
- diuretic (20/3=\$7)
- gout (20/3=\$7) + (\$20)
- stomach pill (\$20)
- sleep pill (\$20-\$46)
- \$84- \$100/m





# De-Prescribing

- more pills = more drug interactions (a single pill may be beneficial on its own, but added to other medications and conditions could cause more problems than it solves)
- evaluate benefits vs. risk of continuing med
  - is this a no benefit seen for 10y med?
- stop or decrease only one medication a month



# Reassess Treatment Often

- when a drug does more ***to you*** than ***for you***
  - it is time to re-assess therapy



# Everything in Moderation

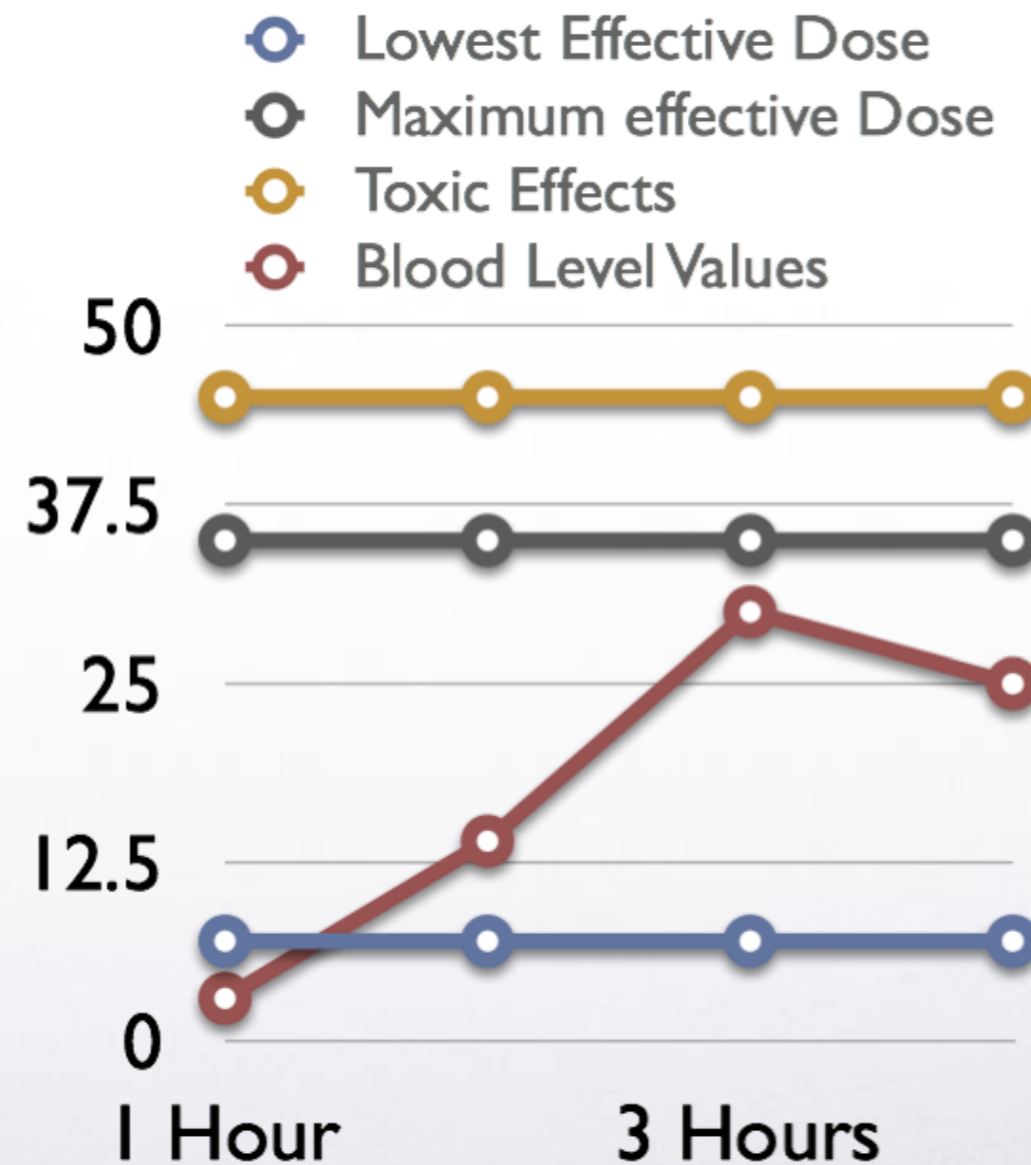
- a) more is better -- may increase side effects without improving benefit
  
- b) less is more -- must take lowest effective dose to receive benefit
  
- c) balance-- key to quality of life





# Blood Levels

- lower limit
- upper limit
- toxic levels





# Choosing the Right Treatment for You

- understand that you have lots of options
- understand that every option has good and bad
- rely on a healthcare team that you trust



# Regular Medication Reviews

- Make an appointment to speak to a pharmacist annually
- What was best for you last year, may not be best for you this year
- Sask Health will pay for 1 x15minute review once yearly, and 2 x 5 minute followups (improving safety)
- Complex consults take up to 1 hour, and are associated with extra costs (improving QOL)





# Not all Medications Qualify for the Seniors Drug Plan

- over-the-counter medications not covered
- topical compounds-- not covered if active ingredient is available in oral form
- new medications are not on the benefit list



# What You Can Do

- Talk to your legislators
- Recognize that topical meds cost \$
  - but, Global Savings to be Realized
    - < drug interactions
    - < organ damage
    - = < hospitalization \$\$



# Questions?