

## A Clinicians Approach to Prescribing Pain Medication

Christopher Dietrich MD

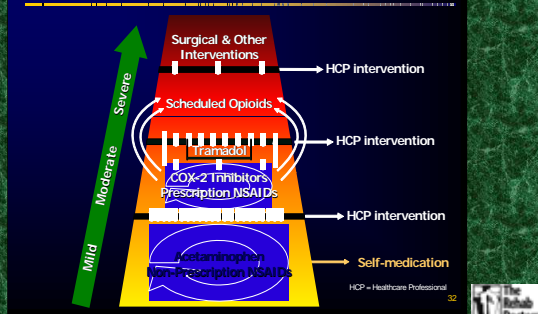


## Approach to Patient with Pain

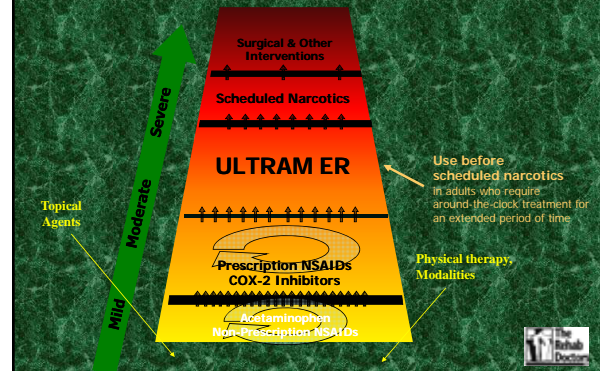
- Identify type of pain
  - Nociceptive, Neuropathic
  - Acute vs Chronic
  - Peripheral vs Central Sensitization
- Identify pain generator
- Review aggravating/ameliorating factors
- Develop initial treatment plan
- Review/modify treatment if necessary



## Persistent Pain Treatment Ladder



## Modified Pain Treatment Ladder



## Topical Agents

- Lidoderm Patch
- NSAID Patch
  - Flector
- Neuropathic Pain Compound
  - Gabapentin 6%
  - Clonidine 0.2%
  - Ketamine 10%
- Capsaicin Cream



## NSAIDS/Acetaminophen

- Acetaminophen (Tylenol):
  - Max dose 4 grams/day
  - Use caution with opioid/acetaminophen combinations
- NSAIDS
  - Inhibit cyclooxygenase (COX) and reduces synthesis of prostaglandins
  - GI, renal, and cardiovascular side effects



## FDA-required "Boxed" Warning For All NSAIDs and COX-2s to Highlight Increased Risk of CV and GI Events<sup>1</sup>

Boxed Warning for NSAID Class<sup>2</sup>

### Cardiovascular Risk

NSAIDs may cause an increased risk of serious cardiovascular thrombotic events, myocardial infarction, and stroke, which can be fatal. This risk may increase with duration of use. Patients with cardiovascular disease or risk factors for cardiovascular disease may be at greater risk. (See WARNINGS and CLINICAL TRIALS). Naproxen... is contraindicated for the treatment of peri-operative pain in the setting of coronary artery bypass graft (CABG) surgery (see WARNINGS).

### Gastrointestinal Risk

NSAIDs cause an increased risk of serious gastrointestinal adverse events including bleeding, ulceration, and perforation of the stomach or intestines, which can be fatal. These events can occur at any time during use and without warning symptoms. Elderly patients are at greater risk for serious gastrointestinal events. (See WARNINGS).

1. FDA Patient Information Sheet, Celebrex, 2005. Available at: <http://www.fda.gov/CDER/drug/infopage/celebrex/Celebrex-risk.pdf>. 2. Naproxen Prescribing Information, 2005.

## Neuropathic Pain Medications

- Gabapentin (Neurontin)
  - Start 100-300mg/day, titrate to desired effect
  - Max 3600mg/day
  - Blocks Ca<sup>2+</sup>/presynaptic neurotransmitter release
- Pregabalin (Lyrica)
  - 50 TID or 75 BID start, can increase to 300-500 daily
  - Side Effects: Dizziness, peripheral edema
  - New FDA approval for Fibromyalgia
- Duloxetine (Cymbalta)
  - SSRI, NE reuptake inhibitor
  - Start 30mg for 1 wk, then titrate to 60,90, or 120mg



## Neuropathic Pain Medications

- Amitriptyline/Nortriptyline
  - Urinary retention, dry mouth, blurred vision, constipation, somnolence
- Lamotrigine (Lamictal)
  - Severe skin rashes reported
- Carbamazepine (Tegretol)
  - Monitor CBC for blood dyscrasias, also Stevens Johnson
- Zonisamide (Zonegran)
  - Sulfonamide reactions, Stevens Johnson syndrome



## Tramadol

- Equianalgesic ratio 5:1 (Opioid to Oral Morphine)
- Tramadol 50mg q 4-6 hr
- Ultracet (Tramadol/Acetaminophen) 37.5/325
- Ultram ER 100-300mg/day
- Max 400mg/day
- Mu receptor agonist, serotonin and NE reuptake inhibitor
- Risks:
  - Lowers seizure threshold
  - Serotonin syndrome



## Opiates

- Decision to use:
  - 1. What is the conventional practice/guidelines?
    - Ex: Cancer pain, Fibromyalgia
  - 2. Are there reasonable alternative analgesic therapies?
  - 3. Is the risk for toxicity excessive?
  - 4. Is the patient likely to be a reasonable drug taker?



## Opiates

- Hydrocodone
  - Vicodin
  - Combined with acetaminophen, ASA, Ibuprofen
  - #1 Most Abused
  - Equianalgesic Ratio: 1:1 (Opioid to Oral Morphine)
- Hydromorphone
  - Dilaudid
  - Equianalgesic Ratio: 1:4



## Oxycodone

- Oxycodone
- Percocet (Oxycodone + Acetaminophen)
  - #3 Most Abused
- Oxycontin
  - Also Oxycodone SR (generic)
  - Q12hr dosing
  - #2 Most Abused
- Equianalgesic ratio: 1:1.5 (Opioid to Oral Morphine)
- To drug screen – need synthetic oxycodone panel



## Morphine

- Equianalgesic ratio (1:1)
- Short Acting
  - MSIR
- Long Acting
  - MS Contin – q12hr dosing
  - Kadian – qd, BID, ?TID dosing
  - Avinza qd/24hr dosing
- Side Effects
  - Respiratory depression, itching, nausea



## Oxymorphone

- Opana ER
- Opana IR
- Equianalgesic Ratio (1:3) (Opioid to Oral Morphine)
- Take on empty stomach, 1 hr before or 2 hr after meal
- Avoid Alcohol – risk of increased plasma levels



## Opana ER – Black Box

- **Important Safety Information**
- **OPANA® ER has a boxed warning as follows:**
  - **WARNING:** OPANA ER contains oxymorphone, which is a morphine-like opioid agonist and a Schedule II controlled substance, with an abuse liability similar to other opioid analgesics.
  - Oxymorphone can be abused in a manner similar to other opioid agonists, legal or illicit. This should be considered when prescribing or dispensing OPANA ER in situations where the physician or pharmacist is concerned about an increased risk of misuse, abuse, or diversion.
  - OPANA ER is an extended-release oral formulation of oxymorphone indicated for the management of moderate to severe pain when a continuous, around-the-clock opioid analgesic is needed for an extended period of time.
  - OPANA ER is NOT intended for use as a prn analgesic.
  - OPANA ER TABLETS are to be swallowed whole and are not to be broken, chewed, dissolved, or crushed. Taking broken, chewed, dissolved, or crushed OPANA ER TABLETS leads to rapid release and absorption of a potentially fatal dose of oxymorphone.
  - Patients must not consume alcoholic beverages, or prescription or nonprescription medications containing alcohol, while on OPANA ER therapy. The co-ingestion of alcohol with OPANA ER may result in increased plasma levels and a potentially fatal overdose of oxymorphone.

## Fentanyl

- Actiq, Buccal tablets indicated only for patients with cancer pain who are opioid tolerant, contraindicated in acute or post-op pain
- Fentanyl Patch (Duragesic)
  - Remove patch if fever
  - Avoid direct exposure to sun/heat
- Equianalgesic Ratio: 25mcg = morphine 60 mg/day



## Fentanyl Black Box Warning

The image shows two pages of the Fentanyl Black Box Warning. The text is small and partially illegible but contains critical safety information regarding the risks of respiratory depression, overdose, and death associated with fentanyl use. The warning is presented in a standard regulatory format with bolded headings and bullet points.



## Methadone

- Pros:
  - NMDA receptor antagonist (Neuropathic pain relief)
  - Cheap
- Cons:
  - Increasing Accidental Deaths reported – 1/3 prescription overdose deaths despite used 1/10 as often
  - QT prolongation
  - Pharmacology – half life 8-59 hrs, analgesic action 4-8 hrs
  - Numerous drug interactions

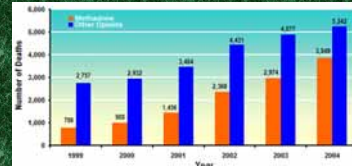


**FDA**  
Information for Healthcare Professionals  
**Methadone Hydrochloride**

**FDA ALERT (11/2006): Death, Narcotic Overdose, and Serious Cardiac Arrhythmias**

FDA has reviewed reports of death and life-threatening adverse events such as respiratory depression and cardiac arrhythmias in patients receiving methadone. These adverse events are the possible result of unintentional methadone overdoses, drug interactions, and methadone's cardiac toxicity (QT prolongation and Torsades de Pointes). Physicians prescribing methadone should be familiar with methadone's toxicity and unique pharmacologic properties. Methadone's elimination half-life (8-59 hours) is longer than its duration of analgesic action (4-8 hours). Methadone doses for pain should be carefully selected and slowly titrated to analgesic effect even in patients who are opioid-tolerant. Physicians should closely monitor patients when converting them from other opioids and changing the methadone dose, and thoroughly instruct patients how to take methadone. Healthcare professionals should tell patients to take no more methadone than has been prescribed without first talking to their physician.

The information on this label is based on data submitted to FDA concerning this drug. FDA cannot guarantee the data or additional information or product features available.



## How to Identify/Prevent Problems



## Tools

- Agreement to Treat with Narcotics
  - ICD-9 = V58.69 Chronic Med Use
- Drug screens
  - ICD-9 = V58.69 Chronic Med Use
- Adequately treat pain & identify patients at risk for abuse/diversion
  - SOAPP-R (Screener and Opioid Assessment for Patients with Pain – Revised)
  - Determine how often to monitor, who to monitor



## SOAPP-R

**Screener and Opioid Assessment for Patients with Pain- Revised (SOAPP-R)**

The Screener and Opioid Assessment for Patients with Pain- Revised (SOAPP-R) is a brief, objective tool for identifying patients at risk for opioid abuse. It is based on data from a large, multi-center study of patients with chronic pain. The SOAPP-R is a brief, objective tool for identifying patients at risk for opioid abuse. It is based on data from a large, multi-center study of patients with chronic pain.

**SOAPP-R is a guide and does not replace clinical judgment.**

**SOAPP-R is a guide and does not replace clinical judgment.**

**SOAPP-R is a guide and does not replace clinical judgment.**



## SOAPP-R Scoring

49 24 questions contained in the SOAPP-R have been empirically identified as predicting abnormal medication-related behavior six months after initial testing.

To score the SOAPP-R, add the ratings of all the questions. A score of 10 or higher is considered positive.

Sum of Questions	SOAPP-R Indication
< 10 = 10	=
= 10	=
> 10	=

- High Risk = 22 or greater
- Moderate Risk = 10 – 21
- Low Risk = < 9



### Case #1

- 57 yr old male rancher
- Several month history of bilateral knee pain
- Not Sleeping well, limiting work, limited recreation
- X-rays show moderate to severe DJD
- Ortho – offered TKA
- Has to wait for surgery due to harvest and calving seasons
- Currently takes OTC Acetaminophen or Ibuprofen PRN



- SOAPP-R score = 8

#### Plan:

More regular use of NSAID

Topical Agents

Physical Therapy/Modalities

Trial Ultram ER –

- long acting pain medication
- improved sleep
- improved compliance (only need to take 1x/day)

Possible Intra-articular injection



### Case #2

- 38 yr old male
- History of two previous work comp injuries
- Three Lumbar Surgeries
- Recently moved to South Dakota
- Chief Complaint Severe back and leg pain
- Exam: Midline scar, limited ROM, Neuro intact
- No outside records/imaging to review
- Was taking “a few” Vicodin a day that took the edge off, Valium or Xanax for “muscle spasms”



- SOAPP-R score = 32

#### Plan:

Initial Drug Screen – before scripts that day

Acquire old records, imaging studies

Question adequate rehabilitation/therapy after surgeries

Consider Neuropathic pain medication

? Opiates

- If prescribing, needs long acting and short acting for breakthrough

No more Benzodiazepines

