Acetaminophen Use for Pain Control

Opioid Use, Red Flags in Opioid Use Disorder and 'Number Needed to Treat'

CompAlliance™

urac ACCREDITED Case Management Expires 12/01/2018

Introduction

› Pain Management in the Insurance/Workers' Compensation population is a common issue for the medical case manager and adjuster handling claims.

› Treating pain and pain management is often the most difficult diagnosis/case to move through the curriculum of care and progress toward reinstatement to work or case closure.

Key Points of Discussion

› Review the Maximum Daily Dosage requirements of Acetaminophen and Acetaminophen Combination Medicines

› Understand how Acetaminophen works to control pain and is metabolized

› Definition of Terms and how quickly a patient becomes dependent on opioids

› CDC Guidelines Update for prescribing Controlled Prescription Drugs

› Need for Use of Best Practices and Research when developing a Comprehensive Controlled Prescription Drug protocol

› Understand the concept of 'Number Needed to Treat'

› Discussing Sensitive Topics

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  - From employer, insurance and provider perspectives
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In honor of…

Your family or your friends that have been affected by this epidemic

Definition of Terms

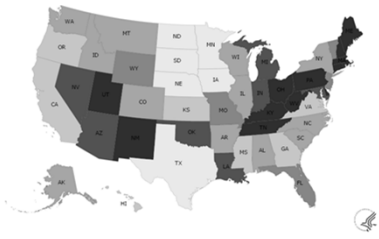
› Tolerance

› Physical dependence

› Addiction

Quick Stats – The U.S. Opioid Crisis

Number of Drug OD Deaths by State, US 2015



Kansas
Number of deaths - 329

Iowa
Number of deaths - 309

Nebraska
Number of deaths - 126

South Dakota
Number of deaths - 65

Abusers Switching from Controlled Prescription Drugs to Heroin

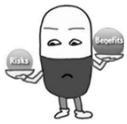
What is Chronic Pain?

When to Use Opioids? (Function over Pain)

- The American College of Occupational and Environmental Medicine (ACOEM) guidelines sanction opioid therapy:
  - ✓Acute pain
  - ✓Short-term use in chronic pain
  - ✓Continued use?
- CDC Guidelines

Points to Consider when Prescribing Opioids for Pain Relief

› Reasonable alternatives?
› Alternatives Tried?
› Risks vs. benefits?



SO ASK YOURSELF – ON YOUR CLAIMS CURRENTLY ON LONG-TERM NARCOTICS, ARE THE INJURED WORKERS TOLERATING THERAPY AND WORKING TO GET BACK TO WORK? IF NOT, THERE IS NO BENEFIT TO THEIR NARCOTIC THERAPY. REBOUND PAIN OR HYPERALGESIA, CAN ALSO BE AN ISSUE.

Recommended Dosage/Type – CDC Guidelines

› *"When opioids are used for acute pain, clinicians should prescribe the lowest effective dose"*
  – Three days or less will often be sufficient; more than seven days will rarely be needed.
  – Physical dependence
  – Holding dosages < 50 MED/day
  – Increasing dosages to 50 or more MED/day increases overdose risk

› Nonjudgmental attitude

› "Just in case"

Initiating Realistic Goals – CDC Guidelines

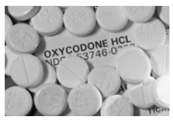
"Before starting opioid therapy for chronic pain, clinicians should establish treatment goals with all patients, including realistic goals for pain and function, and should consider how therapy will be discontinued if benefits do not outweigh risks."

› PEG assessment tool

› Primary Goal

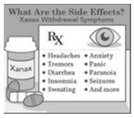
Opioid Side Effects and Considerations

- **Opioid** – OxyContin (oxycodone), 1.5 MED
- Drug Interactions
- What else are they taking?
- DO NOT use alcohol or medications that contain alcohol while receiving treatment with oxycodone!
- **On-label uses**



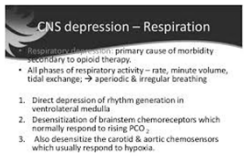
Benzodiazepine Side Effects and Considerations

- **Benzodiazepine** – Xanax (Alprazolam)
- 17 major drug interactions, 728 moderate, 102 minor
- Potentially major interactions
- Potentially moderate interactions
- Part of the "Houston Cocktail" / "The Holy Trinity"
  - Vicodin (Acetaminophen and Hydrocodone) for pain
  - Alprazolam (Xanax) to deal with anxiety
  - Carisoprodol (Soma) as a muscle relaxant
- **On-label uses**



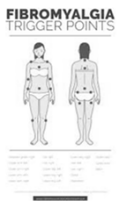
Soma Side Effects and Considerations

- **Muscle Relaxant** – Soma (Carisoprodol)
- 7 major drug interactions, 676 moderate, 1 minor
- MAJOR
- Central respiratory depression
- **On-label uses**



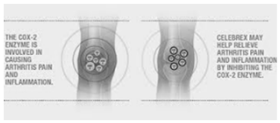
Cymbalta Side Effects and Considerations

- **Anti-Depressant** – Cymbalta (duloxetine)
- 218 major drug interactions, 759 moderate, 62 minor
- Potentially major interactions
- Potentially moderate interactions
- Moderate concerns
- FDA approved to treat
- **On-label uses**



NSAID Side Effects and Considerations

- **NSAID** – Celebrex (celecoxib)
- 31 major drug interactions, 558 moderate, 5 minor
- Be sure you check if they're also taking
- Kidney and liver toxicity testing
- **On-label uses**



Acetaminophen Side Effects and Considerations

- **Acetaminophen** – Tylenol, Anacin, Adprin B, ED-APAP, Bromo Seltzer
- Side Effects
- Be sure you check if they're also taking
- Cautions
- **On-label uses**

Maximum Daily Dosages - Acetaminophen

› **Parenteral (IV):**
Weight 50 kg or greater: 1000 mg IV every 6 hours
OR 650 mg IV every 4 hours
Maximum Single Dose: 1000 mg
Minimum Dosing Interval: every 4 hours
Maximum Dose: 4000 mg per 24 hours

› **Oral:**
Immediate-release: 325 mg to 1 g orally every 4 to 6 hours
Minimum Dosing Interval: every 4 hours
Maximum Single Dose: 1000 mg
Maximum Dose: 4 g per 24 hours

› **Comments:**
Maximum daily dose is based on
Maximum daily dose and dosing recommendations may differ by product

How does Acetaminophen Work?

› We don't fully understand how acetaminophen works

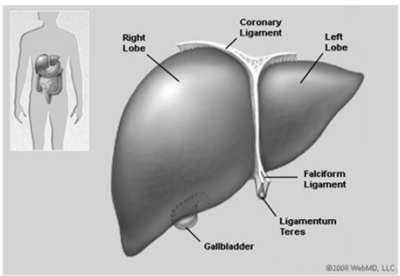
› Non-opioid analgesics work by inhibiting an enzyme known as cyclooxygenase (COX)

› Acetaminophen, however, differs from the other non-opioids in that it does not block COX in the peripheral nervous system

› Serotonin neurotransmission in the CNS and possibly activating ion channels in the brain and spinal cord

› Analgesic but not anti-inflammatory

Metabolism of Acetaminophen



Examples of Combination Drugs with Acetaminophen for pain

› Vicodin, Lortab, Lorcet, Norco, Xodol, Hycet, Zamicet – Hydrocodone/acetaminophen

› Endocet, Percocet, Roxicet, Xartemis XR, Primlev, Tylox – Oxycodone/Acetaminophen

› Tylenol with Codeine – Acetaminophen/Codeine

› Ultracet – Tramadol/acetaminophen

› Trezix, panlor DC- Acetaminophen/caffeine/dihydrocodeine

› In 2011, the FDA asked manufacturers to limit the amount of acetaminophen in prescription combination drugs to 325 mg per capsule or tablet by January 2014. "Acetaminophen overdose is one of the most common poisonings worldwide," according to the National Institutes of Health.

Hydrocodone Fun Facts

› According to the DEA, hydrocodone is the most commonly prescribed (and the most abused) opioid drug in the United States, and the National Institute on Drug Abuse (NIDA) reports that the US consumes nearly 100% of the world's supply of this drug. The following key statistics illustrate the extent of hydrocodone abuse:
- According to the National Survey on Drug Use and Health and Health (NSDUH), **4 million people** over the age of 12 reported using hydrocodone for nonmedical purposes in 2013.
- Over **29,000 hydrocodone-related exposures** and 36 deaths were reported in the U.S. in 2012, according to the American Association of Poison Control Centers.
- The Drug Abuse Warning Network (DAWN) estimated that there were more than **82,000 emergency room incidents** in 2011 related to non-medical abuse of hydrocodone.
- The number of prescriptions for hydrocodone written in the United States has increased dramatically in the last 25 years.

Red Flags of Opioid Use Disorder (Addiction)

› Individuals gripped by opioid dependence and addiction frequently show **telltale signs and behaviors** indicative of active substance abuse:
- Exaggerating pain symptoms or lying about injury to receive prescriptions.
- Requesting frequent refills for the drug.
- Seeing two or more doctors for additional prescriptions.
- Social isolation, or spending more time away from other people.
- Going through money quickly.
- Focusing more on obtaining and using hydrocodone than taking part in formerly enjoyable or valued activities.
- Marked mood changes.

Effects of Abusing Opioids

› Tolerance
› Overdose
› Potential for acetaminophen toxicity if they abuse a combination drug containing an opioid and acetaminophen

Symptoms of Overdose

› Generalized muscle weakness
› Slowed breathing
› Slowed heartbeat
› Cold or clammy skin
› Profound drowsiness
› Loss of consciousness
› Coma
› Death

Drug OD Treatment

› Call 911
› Begin CPR if necessary
› Evzio (Naloxone HCL) rapidly delivers a single dose via a hand-held auto-injector or nasal spray.
› Bring the drugs or pills to the ER or doctor's office
› Hospital treatment
› This individual should not just be discharged.

Do Opioids Work Better than Acetaminophen?

› The choice as to which pain medication to recommend is usually made by perceptions of what works or is dictated by a preexisting medical condition, right?
- If you have advanced liver damage - no acetaminophen.
- NSAIDs should not be given to an individual with advanced kidney disease or stomach ulcers.
- Opioids pose a potential risk for anyone with a personal or family history of addiction.
- We also may choose an opioid because we perceive this class of pain medication is the strongest and is most appropriate for significant injuries, surgery, etc., right?

Evidence-Based Reviews re: Pain Rx Effectiveness

- I believe if we took a poll of doctors, nurses, claims professionals, employers, and injured workers most would state their belief that opioids are stronger than other classes of pain medications (NSAIDs or acetaminophen).
- Several organizations have reviewed the comparative effectiveness of oral pain medications.
  - The Oxford League Table of Analgesics
  - Another organization that has performed an evidence based review of oral pain medications is the Cochrane Collaboration. The Cochrane Collaboration states on their website: *"Cochrane exists so that healthcare decisions get better. During the past 20 years, Cochrane has helped to transform the way health decisions are made. We gather and summarize the best evidence from research to help you make informed choices about treatment."*

Number Needed to Treat (NNT)

- When considering the effectiveness or strength of pain medication, it is important to understand this clinical measure, the Number Needed to Treat.
- In regards to pain medication
- What were the findings?

Oxford League Table of Analgesics in Acute Pain

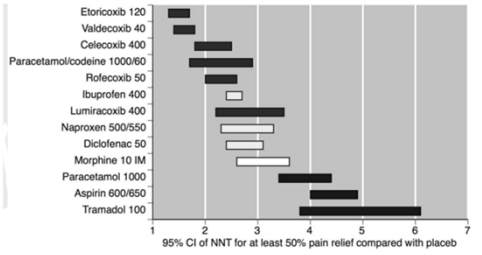


Table 1: The Oxford league table of analgesic efficacy (commonly used and newer analgesic doses)

What is the goal of pain relief?

- 50% relief of pain is considered effective treatment
- A NNT of 1 means that the medicine is 100% effective at reducing pain by 50% - everyone who takes the medicine has effective pain relief.
- The most effective drugs have a low NNT
- If the NNT is 2.0 it would mean that for every two patients who receive the drug one patient will get at least 50% relief because of the treatment (the other patient may or may not obtain relief but it does not reach the 50% level).
- For oral medications, an NNT of 1.5 is very good and an NNT of 2.5 would be considered good.

So what is the rationale for ongoing opioid use?

It is apparent the pharmaceutical companies have done such a great job at marketing opioids that many of us have come to believe opioids are actually stronger than other medications. The facts do not bear out that belief.

An Integrated Controlled Prescription Drug Protocol

- Research "Best Practices"
- As a result of this research, set up protocols
- The Registered Nurse should work collaboratively with all stakeholders
  - Employee, Prescribing Physician, Pharmacy Benefit Manager, Peer to Peer or Utilization Reviewer, Urine Drug Monitoring Vendor, and Claims Handler

The question the RN should ask: "If the opioid is not facilitating decreased pain and increased function, then why is the patient receiving an opioid?"

An Integrated Controlled Prescription Drug Protocol

1. What number best describes your pain on average in the past week:

0 1 2 3 4 5 6 7 8 9 10

No pain — Pain as bad as you can imagine

2. What number best describes how, during the past week, pain has interfered with your enjoyment of life?

0 1 2 3 4 5 6 7 8 9 10

Does not interfere — Completely interferes

3. What number best describes how, during the past week, pain has interfered with your general activity?

0 1 2 3 4 5 6 7 8 9 10

Does not interfere — Completely interferes

Morphine Equivalency Calculator

The link to this calculator: http://agencymeddirectors.wa.gov/mobile.html. This calculator will allow you to quickly calculate the morphine dosages of opiates.

Opioid Dose Calculator

Patient's Name:

Today's Date: April 2, 2014

Use as an app: This calculator can be used as an app on mobile devices. Please refer to your device's instructions (or refer here: Android or iPhone/iPad) on how to add this calculator to your home screen for quick and easy access.

Instructions: Fill in the mg per day* for whichever opioids your patient is taking. The web page will automatically calculate the total morphine equivalents per day.

Opioid (oral or transdermal):	mg per day: *	Morphine equivalents:
Codeine		0
Fentanyl transdermal (in mcg/hr)		0
Hydrocodone		0
Hydromorphone		0
Methadone		0
Morphine		0
Oxycodone		0
Oxymorphone		0
Tapentadol		0
Tramadol		0

TOTAL daily morphine equivalent dose (MED) = 0

*NOTE: All doses expressed in mg per day with exception of fentanyl transdermal, which is expressed in mcg per hour

Calculate Print Reset

Screening Tools

› Opioid Risk Tool
  - Takes less than 1 minute, 5 item test.
  - Screens for aberrant behavior
  - Brief, simple

OPIOID RISK TOOL PATIENT FORM

Name:____________________

Age:_______

		Mark Each Box That Applies	Score if Female	Score if Male
1. Family History of Substance Abuse	• Alcohol	☐	1	3
	• Illegal Drugs	☐	2	3
	• Prescription Drugs	☐	4	4
2. Personal History of Substance Abuse	• Alcohol	☐	3	3
	• Illegal Drugs	☐	4	4
	• Prescription Drugs	☐	5	5
3. Age (Mark Box if 16-45 years)		☐	1	1
4. History of Preadolescence Sexual Abuse		☐	3	0
5. Psychological Disease	• Attention-Deficit/Hyperactivity Disorder; Obsessive Compulsive Disorder; Bipolar Disorder; Schizophrenia	☐	2	2
	• Depression	☐	1	1

Total Score ______Risk Category_______

Low Risk 0-3

Moderate Risk 4-7

High Risk >7

Screening Tools

› Two-Item Dependency Screen
  - Have you ever used more ____________ then you meant to?
  - Have you ever felt you needed to cut down on your ______ in the last year?

› CAGE-AID
  - Expanded from alcohol alone to other drugs
  - Potential advantage is to screen for alcohol and drug problems conjointly rather than separately
  - One or more positive responses is a positive screen

CAGE-AID Questionnaire

Patient Name ____________________ Date of Visit __________

When thinking about drug use, include illegal drug use and the use of prescription drug use other than prescribed.

Questions:	YES	NO
1. Have you ever felt that you ought to cut down on your drinking or drug use?	☐	☐
2. Have people annoyed you by criticizing your drinking or drug use?	☐	☐
3. Have you ever felt bad or guilty about your drinking or drug use?	☐	☐
4. Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover?	☐	☐

Screening Tools

› PHQ-9 (Patient Health Questionnaire)
  - Multipurpose instrument for screening, diagnosing, monitoring and measuring the severity of depression
  - Score of 5-9 minimal
  - Score of 10-14 minor depression
  - Score of 15-19 major depression, moderately severe
  - Score >20 Major depression

Over the last 2 weeks, how often have you been bothered by any of the following problems? *(use "✓" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
add columns		+	+	

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems, how difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all ______

Somewhat difficult ______

Very difficult ______

Extremely difficult ______

Screening Tools

› DIRE (Diagnosis, Intractibility, Risk, Efficacy) assesses risk of opioid abuse and suitability of candidates for long term opioid therapy

› 7 items, less than 2 minutes to administer and score

For each factor, rate the patient's score from 1-3 based on the explanations in the right hand column.

Score	Factor	Explanation
	Diagnosis	1 = Benign chronic condition with minimal objective findings or no definite medical diagnosis. Examples: fibromyalgia, migraine headaches, nonspecific back pain. 2 = Slowly progressive condition concordant with moderate pain, or fixed condition with moderate objective findings. Examples: failed back surgery syndrome, back pain with moderate degenerative changes, neuropathic pain. 3 = Advanced condition concordant with severe pain with objective findings. Examples: severe ischemic vascular disease, advanced neuropathy, severe spinal stenosis.
	Intractability	1 = Few therapies have been tried and the patient takes a passive role in his/her pain management process. 2 = Most customary treatments have been tried but the patient is not fully engaged in the pain management process, or barriers prevent (insurance, transportation, medical illness). 3 = Patient fully engaged in a spectrum of appropriate treatments but with inadequate response.
	Risk	(R = Total of P + C + R + S below)
	Psychological:	1 = Serious personality dysfunction or mental illness interfering with care. Example: personality disorder, severe affective disorder, significant personality issues. 2 = Personality or mental health interferes moderately. Example: depression or anxiety disorder. 3 = Good communication with clinic. No significant personality dysfunction or mental illness.
	Chemical Health:	1 = Active or very recent use of illicit drugs, excessive alcohol, or prescription drug abuse. 2 = Chemical coper (uses medications to cope with stress) or history of CD in remission. 3 = No CD history. Not drug-focused or chemically reliant.
	Reliability:	1 = History of numerous problems: medication misuse, missed appointments, rarely follows through. 2 = Occasional difficulties with compliance, but generally reliable. 3 = Highly reliable patient with meds, appointments & treatment.
	Social Support:	1 = Life in chaos. Little family support and few close relationships. Loss of most normal life roles. 2 = Reduction in some relationships and life roles. 3 = Supportive family/close relationships. Involved in work or school and no social isolation.
	Efficacy score	1 = Poor function or minimal pain relief despite moderate to high doses. 2 = Moderate benefit with function improved in a number of ways (or insufficient info – hasn't tried opioid yet or very low doses or too short of a trial). 3 = Good improvement in pain and function and quality of life with stable doses over time.

___ Total score = D + I + R + E

Score 7-13: Not a suitable candidate for long-term opioid analgesia

Score 14-21: May be a candidate for long-term opioid analgesia

An Integrated Controlled Prescription Drug Protocol

- Reviewing Information provided by the PBM with the prescriber
- Peer to Peer Review and/or Drug Utilization Review
- Urine Drug Screen with the drug-specific Confirmatory Testing
- Pill Counts (mandatory in some states)
- Patient Education - Information regarding safe handling, usage and storage of the opioid is provided, ask questions
  - Don't focus as much on "what" to ask, but the "how" of asking questions

Discussing Sensitive Topics

- Three factors that affect reliability and validity of patient self-report:
  1. Your own anxiety to talk about certain topics
  2. The patient's anxiety to talk about certain topics
  3. The "how" of asking questions – wording, order and form asking for specific data (facts) rather than opinions (judgments), the order of the questions (developing rapport) and the form (open vs. closed ended)
- Decrease anxiety by:
  - Preparing the patient or setting the context
  - Normalizing by making the problem or anxiety a somewhat universal experience
  - Using transparency (why you need to ask about certain info)
  - Asking permission
  - Option of not answering question if it makes them uncomfortable
  - Addressing confidentiality concerns
  - Careful, mindful wording of questions

Using all Three Techniques Together

› Helpful to use all three together
  - "I ask all my patients about their use of prescription and street drug use as part of gaining their medical history (normalizing)
  - Because it can have an important impact on their overall health. (transparency)
  - Would it be OK if I asked you some questions about your use of prescription and street drugs?" (asking permission)

› Confidentiality concerns: Not a black and white issue. Cannot promise patient 100% confidentiality—patients have a right to be informed about this

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