



**2017 CLM Workers Compensation Conference
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“POLYPHARMACY AND OPIATES: WHAT DOES SCIENCE SAY?”

I. Polypharmacy

Polypharmacy is quite simply, the prescription and/or taking of many different medications. This is often the result of a medical approach known as “Semiotics”, which is the medical treatment of symptoms. Generally, in the workers’ compensation arena there is a work-related accident and injury regarding which the claimant complains to his medical providers of symptoms and in order to treat the symptoms the physicians prescribe medications. Prescription medications often produce side effects and, polypharmacy may occur when the patient complains to their doctor of additional symptoms or side effects, often caused by the initial medication, for which additional symptoms the physician prescribe additional medications. This process can build upon itself as the claimant is given additional medication to address additional symptoms in a repeated process of symptom complaints for which medications are provided, which medications produce more side effects, for which more medication is provided,, you get the point. The situation can become even more problematic in situations where the employee/claimant is receiving medication from more than one physician, who may be unaware of the other physician’s involvement and prescriptions being provided. Another difficult variation on this situation arises where the employee/claimant is taking additional drugs from non-medical sources such as family members or friends. These may be prescription drugs or illegal drugs. In any event, the authorized treating physician is generally not notified by the patient of the additional drug use.

Commonly used terms include:

- Opiates, opioids, narcotics
- “Adjuvants” Medications provided to improve opiate effect, address other symptoms (i.e. muscle relaxers, antidepressants, anxiolytics, neuroleptics)
- Chronic benign pain: Pain not due to cancer lasting over 90 days (more on this later)
- Drug combinations and drug-drug interaction (DDI) potential (mild/moderate/major)

- Objective information which is measurable and repeatable include: Blood Pressure; Pulse; Diagnostic studies such as X-ray, MRI, CT
- Subjective: An un-measurable complaints such as Headache, Pain, Fatigue
- Validity
- Reliability
- Other information include tenderness and spasms

II. Recent Trends

1. “Syndromes”

Complex Regional Pain Syndrome

Neuropathic Pain

2. Center for Disease Control (CDC)

According to the CDC website, more people died from drug overdoses in 2014 than in any year on record. The majority of drug overdose deaths (more than six out of ten) involve an opioid. And since 1999, the rate of overdose deaths involving opioids (including prescription opioid pain relievers and heroin) nearly quadrupled. From 2000 to 2014 nearly half a million people died from drug overdoses. Seventy-eight (78) Americans die every day from an opioid overdose. There were approximately 47,000 deaths in 2014 from narcotics, which is approximately 130 each day. Half of these deaths are due to prescription opiates.

We now know that overdoses from prescription opioid pain relievers are a driving factor in the 15-year increase in opioid overdose deaths. Since 1999, the amount of prescription opioids sold in the U.S. nearly quadrupled, yet there has not been an overall change in the amount of pain that Americans report. Deaths from prescription opioids—drugs like oxycodone, hydrocodone, and methadone—have also quadrupled since 1999.

3. Substance Abuse and Mental Health Services Administration (SAMHSA)

SAMHSA figures show that in 2014 the rate of past year nonmedical pain reliever use among youth aged 12 to 17 was 6.2%. For young adults ages 18 to 25, the rate was 11.8%. In 2014, youths aged 12 to 17, or young adults aged 18 to 25, were more likely to misuse prescription drugs in the past year than adults aged 26 or older. The percentage of current abusers/misusers of prescription drugs significantly increased for those aged 12-17 from 2.2% in 2013 to 2.6% in 2014. On an average day during the past year, an average of 5,784 adolescents used prescription pain relievers non-medically for the first time.

III. Pain as a Diagnosis

Pain is generally defined as “An Unpleasant Subjective Experience....” Efforts to quantify or objectify pain include the analog pain scale (i.e. reported pain on a scale of 1 to 10). Pain can be associated with some generally objective indicators such as blood pressure and heart rate. We do know certain things about efforts to confirm the presence of pain and to quantify the level of pain:

- Pain cannot be measured;

- We can measure BP, pulse, pulmonary/cardiac function, which may provide more objective indicators regarding the presence or absence of pain and the degree of pain;
- The Visual analogue pain scale (VAS) and Oswestry are all simply self reports of pain by the patient and are unreliable;
- The VAS undertakes to quantify pain by rating: mild (1-3), mod (4-6), severe (7-10);
- “Severe pain” inconsistent with the ability to perform activities of daily living (drive, dress yourself, eat, etc.) AMA 4th Ed. Guides, pg. 315)
- Severe pain and normal BP, pulse, resp. rate reflect a physiologic inconsistency.

IV. Opiate Risk Factors and Common Pitfalls

The use of opioids has increased without rational explanation. As use has increased, the unintended death rate has also increased. However, outcomes for opioid users and survivors are not better.

The typical path to polypharmacy involves a relatively minor accident and injury followed by unusually high reports of pain. The health care provider seeks to address and diminish the pain complaints and prescribes medications to address symptoms. The patient’s pain complaints escalate for reasons which most often cannot be rationally explain or objectively diagnosed. More often than not the medical providers fail to properly and thoroughly investigate the complaints. These lapses often include either no physical examination of the patient or only a cursory exam which failed to measure and record relevant physical information which could confirm or exclude possible causes. Most common are situations where the subsequent medical visits and corresponding records continue reflect subjective complaints without identifying or recording relevant physical information. Side effects, additional symptoms and increasing levels of pain are reported by the claimant, which results in additional prescriptions and increasing quantities of medication to address the blossoming complaints. The frustrated medical provider often hands off the patient to “Pain management”. The claimant has become another victim of Polypharmacy.

1. Typical causes for the cascading course of medical treatment which becomes polypharmacy often include a combination of the following:

- Historic inaccuracy (information incomplete or “modified”;
- Incomplete exam, workup of complaints and/or complications;
- Treatment of symptoms, rather than an objectively identified underlying disease process;

- Lack Of Objective Findings;
- Urinary Drug Screens/Testing (UDS/T - incorrectly interpreted, or not reviewed; Note a distinction between screening and testing urine for drugs.
- Pill counts – effective in concert with UDS/T but often not done
- Diminished physician involvement through the use of Physician Assistants, Nurse Practitioner, Medical Assistants)
- Ignorance of DDI and co-morbidities
- Low index of suspicion for substance abuse/misuse
- Opioid use disorder

2. Opiates – what they do and why:

- Analgesic (pain relief)
- Euphoria (elevated mood), drowsiness, mental clouding, apathy, lessened physical activity (“psychomotor slowing”)
- Anti-emetic (anti-nausea)
- Cough suppressant
- Anti-diarrheal/anti-spasmodic
- Respiratory depression (primary cause of morbidity with opiate use) *[Goodman/Gilman 2011 pg 492].*
- Central sleep apnea
- Addiction/tolerance

3. Why Patients Die From Narcotics

The most common causes of death are respiratory suppression and cardiac issues. Many narcotics, especially at higher doses and in combination with anxiolytic/sedative hypnotic drugs such as Ambien, Xanax, and Valium, suppress the respiratory drive in the brain stem. Unless a thorough post mortem exam is done (including toxicology) a drug related death could be easily missed and Coroners may sign off on cause of death due to “natural causes”. For this reason, drug related deaths are likely under reported.

4. Opiate complications

Complications from use of opioids include:

- Opiate hyperalgesia (increase in pain due to the opiate)
- Tolerance
- Opiate use disorder (“addiction”)
- Multi-system involvement is possible with adverse effect on the cardiac, endocrine, neurologic, gastro-intestinal, systems.
- Other adverse consequences include: osteoporosis, fractures, immune suppression, myocardial infarction, sleep apnea, bowel obstruction. (ODG)

- Polypharmacy may result from efforts to address side effects such as somnolence, arousal disturbance, GI hypo motility, Impotence, etc.
- Drug-drug interactions
- Death

Drug-drug interactions (DDI) are at the heart of polypharmacy. There are three types of potential drug to drug interactions:

- “Mild” ...slight irritation, not harmful
- “Moderate”noticeable irritation potential harms but manageable
- “SEVERE” Mixing these 2 drugs together is potentially lethal and cannot be justified.

5. Opioid Use Disorder

A problematic pattern of opioid use that causes clinically significant impairment or distress. A diagnosis is based on specific criteria such as unsuccessful efforts to cut down or control use, as well as use resulting in social problems and a failure to fulfill obligations at work, school, or home. Opioid use disorder has also been referred to as “opioid abuse or dependence” or “opioid addiction.” The *Diagnostic and Statistical Manual for Mental Health Disorders*, Fifth Edition, (DSM V) classifies this under the heading” SUBSTANCE USE DISORDER”

IV. Intervention

A. Intervention Opportunities

1. Pain Management
2. Pre-surgery
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B. Intervention by the Claims Handler

1. Physician Selection
2. Utilization Review/Peer Review
3. Medical Records Review
4. IME
5. Detox
6. Drug Testing

C. Intervention by the Employer (10 minutes)

1. Accident/Injury Response
2. Drug Testing
3. Selection of Physician
4. Return to Work

D. Intervention by the Lawyer (5 minutes)

1. Utilization Review
2. Motion Practice