

# Dialogue

### **Treating Pain Pharmacologically**

Every person's pain threshold and tolerance is different and is influenced by a number of factors including previous pain experience and the ability to cope. This article reviews pharmaceuticals used in the treatment of pain, current tools available to measure pain level, processes that can monitor the management of pain and the obstacles and challenges workers' compensation claims administrators face.

Pain can be acute, chronic, neuropathic or psychogenic. Acute pain generally lasts less than six weeks and in occupational injuries is typically associated with tissue injury and inflammation; chronic pain usually lasts more than three months and is less common than acute pain; neuropathic pain is associated with damage to nerves; psychogenic pain is associated with psychological factors.

Pain can be defined as "a highly unpleasant physical sensation occurring in varying degrees of severity as a consequence of injury, illness, or emotional disorder."



Treating pain pharmacologically for both occupational and non-occupational injuries and illnesses generally starts with the following drug groups:

•Non-Narcotic Analgesics: Acetaminophen (aka Paracetamol) is generally used to treat mild to moderate pain and is available as both an over-the-counter ("OTC") medication and in prescription strength. Common OTCs are Tylenol, Panadol and Panamax;

•Anti-Inflammatories - Analgesics: Like non-narcotic analgesics, these drugs are used to treat mild to moderate pain associated with inflammation and are generally grouped into two sub-classes as non-steroidal anti-inflammatory (NSAIDs)

and COX-2 inhibitors. Popular NSAIDs are Ibuprofen and Meloxicam and a common COX-2 inhibitor is Celecoxib.

• Opioid Analgesics: Treating with opioid analgesics generally commences with drugs such as Tramadol and Hydrocodone for moderate pain progressing to Morphine, Oxycodone and Fentanyl for severe pain.

Other medications used to control pain include muscle relaxants with physical therapy as adjunctive treatment, anticonvulsants for neuropathic pain and at times antidepressants for neuropathic pain.

Some of the drugs which fall into these drug groups were identified in the National Council on Compensation Insurance (NCCI) September 2013 report titled "Workers Compensation Prescription Drug Study: 2013 Update" and the Workers' Compensation Research Institute (WCRI) September 2013 report titled "The Prevalence and Costs of Physician-Dispensed Drugs".

The chart below separates the medications into <u>three dispensing groups</u>, (1) medications dispensed by a pharmacy, pharmacy benefit manager (PBM) or a physician from their office, (2) medications dispensed by a pharmacy or PBM only and (3) medications dispensed by a physician from their office.

#### **Pharmaceutical Dispensing Source**

Pain	Pharmacy, PBM or Physician dispensed	Pharmacy or PBM Dispensed only	Physician Dispensed only
Mild	Meloxicam, Celecoxib, Ibuprofen	Flector (NSAID patch)	
Moderate	Tramadol, Hydrocodone- Acetaminophen		
Severe		OxyContin (Oxycodone), Opana ER (Oxymorphone), Fentanyl, Oxycodone- Acetaminophen, Oxycodone HCl, Kadian (Morphine Sulphate), Percocet (Oxycodone- Acetaminophen)	
Neurophathic	Gabapentin (anticonvulsant), Lyrica (anticonvulsant)		
Other	Litoderm (local anesthetic), Cyclobenzaprine (muscle relaxant), Carisoprodol (muscle relaxant)	Metaxalone (muscle relaxant), Zolpidem Tartrate (sedative- hypnotic), Cymbalta (anti- depressant)	Carisoprodol (muscle relaxant)
Concomitant Medications			Omeprazole (Ulcer Drug group - blocks the production of acid in the stomach)

In responding to the treatment of pain, it is important to firstly **believe the pain that the person is experiencing,** secondly to assess their pain promptly both at rest and in motion, and thirdly to check their functional capacity and degree of disability.

Tools that assist in determining a person's pain level include the visual analogue scale, the numerical rating scale and the faces pain scale questionnaires. For a person who has difficulty in communicating their pain (i.e. self reporting), the treating physician may use the behavioral pain assessment scale questionnaire to determine the individual's scores relating to face, restlessness, muscle tone, vocalization and consolability (called the "Face, Leg, Activity, Cry, Consolability behavioral scale [FLACC]"). Factors such as a person's cultural practices, beliefs, language, cognitive abilities and emotions may play an important role in influencing the pain measurement tools used.

The results from these tools however, are not able to be represented using International Classification of Diseases codes ("ICD"), which link medical conditions to treatment patterns. For instance, ICD-9-CM lists 29 codes specifically associated with the word "pain". Examples include, 719.41 Joint Pain-Shoulder Region, 307.80 Psychogenic Pain-Site Unspecified. Although ICD-10-CMs have expanded the number of codes associated with the word "pain" to 183, they do not record the severity of pain (e.g. mild pain score of 1 to 3, medium pain score of 4 to 6 and severe pain score 7 to 10) instead, specific body regions are listed, for example, M54.5 Low Back Pain, M25.512 Pain in Left Shoulder, M79.641 Pain in Right Hand. Also, pain associated with medical conditions such as Carpal Tunnel Syndrome cannot be established using ICD codes, for example, the ICD-9-CM code for Carpal Tunnel Syndrome is 354.0 and the ICD-10-CM codes for Carpal Tunnel consist of G56.0 Carpal Tunnel Syndrome, G56.00 Carpal Tunnel Syndrome-Unspecified Upper Limb, G56.01 Carpal Tunnel Syndrome-Right Upper Limb, G56.02 Carpal Tunnel Syndrome-Left Upper Limb.

Some form of pharmaceutical progressive plan or step therapy is often encouraged when controlling pain pharmacologically. Ethical medical practice mandates the prevention of unnecessary pain and suffering, as lack of treatment can have adverse psychological and physiological effects, including the development of clinical depression. The World Heath Organization ("WHO") has developed the concept of a Pain Ladder or Analgesic Ladder, which recommends starting with first rung drugs such as non-narcotic analgesics and progressing to higher rung drugs only when pain is still present. However, WHO also recommends that if the initial diagnosis shows severe pain, then progressive or step therapy should be skipped and a stronger medication such as an opioid analgesic in combination with a non-opioid analgesic should be used.

#### Terminology used when treating with narcotics

The American Pain Society, the American Academy of Pain Medicine and the American Society of Addiction Medicine has adopted the following definitions:

**Tolerance (pharmacological).** A predictable physiological decrease in the effect of a drug over time so that a progressive increase in the amount of that drug is required to achieve the same effect. Tolerance develops to desired (e.g. analgesia) and undesired (e.g. euphoria, opioid-related sedation, nausea or constipation) effects at different rates.

**Physical dependence.** A physiological adaptation to a drug where abrupt discontinuation or reversal of that drug, or a sudden reduction in its dose, leads to withdrawal (abstinence) syndrome. Withdrawal can be terminated by administration of the same or similar drug.

**Addiction.** A disease that is characterized by aberrant drug-seeking and maladaptive drug-taking behavior that may include cravings, compulsive drug use and loss of control over drug use, despite the risk of physical, social or psychological harm. While psychoactive drugs have an addiction liability, psychological, social, environmental and genetic factors play an important role in the development of addiction. Unlike tolerance and physical dependence, addiction is not a predictable effect of a drug.

**Pseudo-addiction.** Behavior that may seem inappropriately drug seeking, but is the result of under treatment of pain and resolve where pain relief is adequate.

In addition to this list, **Opioid-Induced Hyperalgesia (OIH).** Opioids given to treat pain can paradoxically lead to increased pain levels.

Although one type of opioid is not superior to another, it has been stated by various sources that using opioids to treat pain can vary with individuals as the drug moves through the body (pharmacokinetics) and the effect it has on the body (pharmacodynamics) can result in some opioids being better than others in controlling pain. In addition, genetic testing in a form of personalized medicine is now being used to assist in determining a person's pain threshold as well as determining if a person is more susceptible to becoming addicted to narcotic prescriptions.

At **The American Pain Society's 33rd Annual Scientific meeting** held in early May, 2014, Researchers presented clinical data on how genetic analysis can assist in determining a person's tolerance to pain. Four genes have been identified by the researchers, COMT, DRD1, DRD2 and OPRK1, which they believe could help a physician to better understand a patient's perception of pain.

However, in the October 2013 edition of the British Journal of Pain, an article titled, "Pharmacogenetics of analgesic drugs [Roman Cregg]", stated the following in the article's summary:

- Individual variability in pain perception and differences in the efficacy of analgesic drugs are complex phenomena and are partially genetically predetermined.
- Analgesics act in various ways on the peripheral and central pain pathways and are regarded as one of the most valuable but equally dangerous groups of medications.
- While pharmacokinetic properties of drugs, metabolism in particular, have been scrutinized by geno-type-phenotype correlation studies, the clinical significance of inherited variants in genes governing pharmacodynamics of analgesics remains largely unexplored (apart for the µ-opioid receptor).
- Lack of replication of the findings from one study to another makes meaningful personalized analgesic regime still a distant future.

Although the risk of becoming addicted to opioids is very small when used to treat acute pain, much has been written recently about dependence and overdose from prescription narcotics. This equally applies to Acetaminophen (Paracetamol) with concerns of hepatotoxicity (liver damage) and NSAIDs with gastrointestinal-related events. Statistics relating to deaths associated with Acetaminophen (Paracetamol), including suicides, accidental overdoses and cases of unknown intent vary significantly from different sources, with estimates ranging from 450 to 16,000 per year in the United States and in the vicinity of 56,000 emergency room visits and 26,000 hospitalizations. This emphasizes the fact that regardless of the pharmaceutical used to control pain, there is an essential need to find the right balance between a drug's benefit and a drug's risk. This can be achieved through the prospective, concurrent and retrospective assessment of pain severity, the analgesic response and the incidence of side effects based on titration.

As classic analgesics are not able to control all types of pain, assessments need to consider both medications and adjunctive treatments to ensure a person obtains maximum possible relief from pain with tolerable side effects. Alternative medications may include traditional herbal Chinese medicines and homeopathic medicines, as well as dietary supplements. Adjunctive therapies may include treatments using laser, acupuncture, acupressure, transcutaneous

electrical nerve stimulation (TENS), hypnosis, myotherapy, physical therapy and as a last resort, surgery. Since the passing of Assembly Bill 227 (AB227) and Senate Bill 228 (SB228) in 2003, the use of physical therapy to treat pain in California's workers' compensation has been reduced.

#### **American Medical Association**

#### Acute Pain Treatment may consist of the following:

- resting the affected part of the body
- application of heat and ice
- acetaminophen (paracetamol)
- non-steroidal anti-inflammatory drugs (NSAIDs)
- physical therapy
- Bioelectric therapy (using local electrical stimulation to moderate pain)
- exercise
- stress reduction
- opioids (narcotics) medication such as codeine or morphine
- muscle relaxant medications

#### A secondary tier of treatments may include:

- anti-convulsants
- anti-depressant medications
- nerve blocks (use of local anesthetics to block nerve activity)
- trigger point injections to treat muscle spasm
- steroid injections to reduce tissue inflammation
- acupuncture

#### Symptoms to look out for include:

• ongoing depression, anxiety and substance abuse

#### Additional diagnosis tests may include:

- blood tests
- imaging studies (x-ray, CT, MRI, nuclear scans, ultrasound)
- Dye-injection studies, such as a diskogram to identify painful disks in the spine or myelogram to identify areas of spinal nerve compression
- Electromyography and nerve conduction studies to identify nerve abnormalities

In the California workers' compensation system, prospective, concurrent and retrospective assessment of the physician's pain management plan can <u>by default</u> be achieved through the following administrative processes:

- (1) the initial examination report of the individual by the physician,
- (2) the processing of payment requests from the medical profession for treatments, medications and supplies and
- (3) the physician's progress report.
  - The initial examination of an individual must follow either the 1995 or 1997 guidelines established for evaluation and management services by the Centers for Medicare & Medicaid Services ("CMS") and involves: (a) a comprehensive medical history, (b) a comprehensive examination of the body system and (c) the medical decisions. Following the guidelines ensures that the physician has complete and accurate information including an understanding of the person's pain threshold and their pain tolerance. This is the claims administrator's initial prospective assessment which after assessing available pain care options, defines the most appropriate and effective pain management strategies. It also initiates a number of other claims administrative processes: (i) establishing whether the cause of the injury/illness

is work related, (ii) whether the injury/illness is solely work related and (iii) the extent and complexity of the injury/illness, all of which directly influence the financial funds set aside (i.e. reserves) by the claims administrator. These funds provide the necessary medical treatment and compensation for lost time offwork and loss of future earnings based on the level of impairment and/or loss of function to perform work.

- · Request for payment by the medical profession requires the submission of an itemized account to the claims administrator using the HealthCare Common Procedure Coding System (HCPCS) including their dates of service. HCPCS includes the American Medical Association's (AMA's) Current Procedural Terminology (CPT) coding system. In addition to medical procedure codes, payment requests need to list the ICDs identifying the medical conditions being treated. For products, such as pharmaceuticals and durable medical equipment, details are itemized using coding systems such as the National Drug Code (NDC) along with their dispensing dates, quantities dispensed and the prescriber's name. Collecting this data from all providers in addition to the pain severity score identified during initial and subsequent medical examinations, provides the claims administrator with a means to perform both a concurrent utilization review as well as a retrospective utilization review. Most technologies used in developing workers' compensation claims systems should have the ability to aggregate these details providing the ability to identify deviations from what was proposed in the medical reports, automatically perform retrospective drug utilization reviews and generate recently dispensed medication alerts, all without the need for any human intervention.
- A Primary Treating Physician's Progress report (PR-2) must be submitted to the claims administrator if a person's medical condition has changed or more than 45 days have passed since the submission of a progress report. Some reasons for submitting the report earlier than 45 days may include, (a) change in the treatment plan, (b) change in a person's condition or (c) need for surgery or hospitalization. The submission of this report triggers both a retrospective and a prospective utilization review by the claims administrator, providing an opportunity to review the pharmaceutical plan along with the adjunctive treatment plan. This also initiates claims administrative processes such as (i) reviewing whether the physician has prepared a cohesive and effective treatment plan, (ii) determining whether estimated duration of incapacity requires reviewing as well as return-towork opportunities, (iii) revisiting any psychosocial issues that may be influencing the outcome of the claim and (iv) reviewing reserves to ensure they are adequate to cover ongoing costs associated with the claim.

In summary, by using the administrative medical data to perform prospective, concurrent and retrospective assessments, the claims administrator can determine "<a href="how">how</a>" to get the injured worker back to sustainable employment, rather than just focusing on "<a href="when">when</a>" they may return to work.

While controlling pain associated with an occupational injury/illness is a complex issue on its own, the complexity of addressing pain control increases exponentially when the workers' compensation physician is

#### Pharmaceuticals for controlling pain

To assist claims administrators in prospectively, concurrently and retrospectively assessing the physician's pain control plan, automated yellow and red flags associated with pharmacological edits (aka rules) can in most cases be easily added to a claims administrator's workers' compensation computer system utilizing their existing technologies. Examples of the types of edits that can be added are shown below.

(Note: these are <u>examples only</u> and it is the reader's responsibility to identify their own edits and verifications for pharmaceuticals. The edits listed have been researched through various sources, but <u>have not been confirmed</u> as to their accuracy):

- Acetaminophen (aka Paracetamol) is an effective analgesic for acute pain.
- Acetaminophen combined with tramadol is more effective than either drug alone and shows a dose-response effect.
- Acetaminophen combined with an opioid (codeine, hydrocodone, oxycodone) is more effective than either drug alone and shows a dose-response effect.
- Non-selective NSAIDs (such as Ibuprofen, Asprin and Naproxen) are effective in the treatment of lower back pain.
- Non-selective NSAIDs given in addition to acetaminophen improve analgesia compared with acetaminophen alone.
- Non-selective NSAIDs and coxibs (COX-2 selective inhibitor such as celecoxib) are effective analgesics of similar efficacy for acute pain.
- Adverse effects of NSAIDs are significant and may limit their use.
- Coxibs and non-selective NSAIDs have similar adverse effects on renal function.
- Immediate-release opioids should be used for breakthrough pain and for titration of controlled-release-opioids.
- Dosage strength of opioids is based on whether the person is opioid naive or opioid tolerant.
- During progressive plan or step therapy, medications should be dispensed in small quantities.
- Controlled-release-opioids for the early management of acute pain is discouraged because of difficulties in short-term dose adjustments.
- Transdermal Fentanyl should not be used to manage acute pain because of short-term dose adjustments.
- Adjuvant agents such as anticonvulsants, antidepressants and muscle relaxants are generally not recommended for the routine treatment of acute musculoskeletal pain.
- Anticonvulsant drugs like Gabapentin are effective in the treatment of chronic neuropathic pain.
- Antidepressants may not be effective in the treatment of chronic lower back pain.

not the sole care provider and the person is also receiving medical treatment and medications for non-work related injuries/illnesses elsewhere (pre-existing conditions). It is estimated that approximately 58% of the U.S. adult working population rely on prescription medications on a regular basis. It is also estimated that over 70% of men and over 60% of women in the U.S. suffer from being overweight, which carries health risks such as diabetes, cancer, asthma, rheumatoid arthritis, carpal tunnel syndrome, chronic back pain and cardiovascular diseases to name a few.

In a 2014 publication of "The Scientist", it was stated that the U.S. accounts for 13% of the world's obese people, yet it is less than 5% of the world's population.

Further, it reported that the total number of overweight and obese people in the world has climbed from 857 million in 1980 to 2.1 billion in 2013.

With the passing of Senate Bill 899 (SB899) in 2005, Californian employers who had established a Medical Provider Network ("MPN") became <u>fully accountable</u> for the total rehabilitation of their employees, from the physical recovery following an occupational injury/illness to returning to gainful employment. The legislation's intention was to primarily curtail the adversarial relationship between the medical profession and the claims administrator, generally caused by differences relating to utilization of medical treatment and the accusation by claims administrators of medical professions' bill practice of "upcoding" or "unbundling" services to increase their revenue for medical treatments. The California Workers' Compensation Institute (CWCI) made the following statement in their March 2013 report, titled "California Workers' Compensation Medical Network Utilization", regarding the use of MPNs, "..., the use of network providers for treatment beyond 30 days from the date of injury clearly offered the greatest opportunity to affect the course of treatment and produce savings.".

Is it practicable for the workers' compensation physician treating a person's occupational injury/illness to communicate and collaborate effectively with a person's personal physician concurrently treating their non-occupational medical conditions?

A review of the U.S. top 100 drugs by revenue (\$ amount) for the 4th quarter of 2013 (<a href="www.drugs.com">www.drugs.com</a>) identified that drugs fall into the following groups. The chart below lists the drug groups, the number of drugs within each group and some of the drugs reported in each group.

#### U.S. Top 100 Drugs by Revenue for 4th Quarter 2013

Drug Group	Cnt	Sample of drugs
Cancer	15	Avastin, Gleevec, Herceptin, Xeloda
Diabetes	12	Janumet, Homolog, Victoza
Mental Health	12	Abilify, Amphetamine-dextroamphetamine, Cymbalta, Divalproex Sodium, Lunesta, Lyrica, Seroquel XR
Cardiovascular	11	Crestor, Diovan, Enoxaparin, Metoprolol
Asthma	10	Advair Diskus, Symbicort, Xolair
HIV/AIDS	8	Atripia, Isentress, Prezista
Multiple Sclerosis	7	Betaseron, Copaxone, Gilenya
Pain	4	Celebrex (Celecoxib [COX-2 inhibitor]), Suboxone (Opioid [DEA Schedule III]), Acetaminophen-Hydrocodone (Opioid [DEA Schedule III] to be reclassed as a Schedule II),OxyContin (Opioid [DEA Schedule II])
Joint/Rheumatoid Arthritis	4	Humira (Biologic), Enbrel (Biologic), Remicade (Biologic), Orencia (Biologic)
Other	17	Nexium, Budesonide, Evista, Stelara, Xylocaine

The top five drugs were:

- Abilify anti-psychotic drug taken as an add-on treatment in addition to an antidepressant, not as a replacement.
- Nexium decreases the amount of acid produced in the stomach.
- Humira Biologic drug. Used to treat rheumatoid arthritis.
- Crestor reduces the level of 'bad' cholesterol, while increasing the level of 'good' cholesterol.
- Advair Diskus prevents asthma attacks.

Funding by the U.S. government for medical research is distributed by the National Institute of Health (NIH). Distribution of the funds by the NIH generally is a reflection of scientific opportunity, the burden of disease, and both national and global health needs. In the May 2014 publication of Science magazine, the 2013 NIH funding levels for the top 10 causes of deaths during 2011 in the U.S. were identified. Heart disease was identified with the highest deaths (596,339) and the 10<sup>th</sup> highest was suicide (38,285). As pain is generally not defined as a medical condition in its own right but a consequence of a medical condition, such as heart disease, cancer, chronic respiratory disease and diabetes, funding for research into pain management is limited. Pain medications such as oxycodone have been in clinical use since 1917 (98 years) and acetaminophen since the 1950s (60 years) with its toxicity recognized since the 1960s. There are no indications that these medications for controlling pain with be discontinued in the foreseeable future.

Most health care in the U.S. is provided under a fee-for-service model that may at times encourage over utilization of medical treatment (i.e. quantity rather than quality). To reduce the opportunity for over utilization and associated disputes between the medical provider, claims administrator and the injured person, legislation was also enacted for California workers' compensation physicians to use "evidence-based medicine".

Evidence-based medical guidelines are based on things such as Randomized Controlled Trials (RCTs) and systematic reviews. The intention of this legislation was to ensure that, (1) the injured worker received the appropriate treatment as defined by the guidelines and (2) the employer only incurred medical costs that were reasonably necessary to cure or relieve the effects of the work related injury/illness.

A recent article published in the Journal of the American Medical Association (JAMA) referred to the 20<sup>th</sup> century as the century of the doctor and the 21<sup>st</sup> century as the century of the patient. Today, more than ever, a person has access to vast information via the internet on

the treatment of medical conditions including pharmaceutical advice through to adjunctive treatments. The website MedLinePLUS, a service of the U.S. National Library of Medicine (NIM) and National Library of Health (NIH) (www.nim.nih.gov) provides data on pharmaceuticals as well as treatments for various medical conditions. The National Institute of Arthritis and Musculoskeletal and Skin Disease (NIAMS) (www.niams.nih.gov) is another site providing information and the website nervepain.com provided by Pfizer Australia describes nerve pain with the promotional slogan "more than medications, take control of your health". Studies have shown that a person's decision on health matters can be influenced 70-80% by word-of-mouth, from family and friends who may have taken the same medications and received similar treatments to those participating in internet social network forums, where individuals openly discuss the pros and cons of their experiences, all of which can play a role in a final decision being made.

A number of U.S. jurisdictions have elected to use the Work Loss Data Institute's product for establishing evidence-based medicine guidelines for their workers' compensation schemes. The online "ODG (Official Disability Guidelines) Evidence-Based Decision Support" product from Work Loss Data Institute ("ODG") has collated evidence from a number of sources, including published articles from RCTs. Claims Administrators are able to reference these guidelines to determine whether medical treatments recommended by a physician to treat carpal tunnel syndrome for example, are necessary or effective. Access to the ODG is by subscription only, which leaves an injured person to perform their own research using sources such as the website MedlinePLUS. As shown in the example for carpal tunnel, the medications referenced by web sites all differed in opinion. Claims administrators who use only one source or product to determine appropriate medical treatment may find differences between the injured person's expectations and their own goals and objectives, possibly straining an already adversarial relationship, further delaying the recovery period and accelerating the possibility of the injured person developing clinical depression - a "snowball effect".

A problem in strictly adhering to evidence-based medicine is not so much the lack of evidence, but rather its <u>surplus</u> and <u>determining the quality</u> of the evidence, which at times may be biased or skewed, <u>influenced by research funding or specific interest groups</u>. A physician may be forced to follow a treatment plan against their better judgement and against the treatment desired by the injured person, just to appease the claims administrator enforcing evidence-based medical guidelines from one source only.

Reviewing the medications used for the treatment of **carpal tunnel syndrome** showed a diversity of information from different websites some of which included ODG Evidence-Based Decision Support (Work Loss Data Institute, Official Disability Guidelines), MedLinePLUS (U.S. National Library of Medicine), NHS Choices (United Kingdom National Health System), East Kent Hospitals University - Carpal Tunnel Net, U.S.

Department of Health & Human Services and National Institute of Health - Office of Dietary Supplements as well as others.

All sites suggested the use of corticosteroid (steroidal anti-inflammatory) injections, while only some advised using Prednisone, a corticosteroid tablet. Few mentioned the difficulty for diabetics regulating insulin with prolonged steroid use. Most failed to mention adverse effects such as insomnia, fluid retention and weight gain with use of corticosteroids. Some suggested injecting lidocaine solution, a local anesthetic whereas others identified a lidocaine transdermal patch, which until September 2013, was only available in the U.S. as the trademarked name "Litoderm". Some mentioned taking vitamin B6 (Pyridoxine HCl) when taking NSAIDs, citing that vitamin B6 increased pain tolerance levels, while others stated there was a lack of evidence to support taking either NSAIDs or vitamin B6. Others suggested taking the analgesic acetaminophen instead of NSAIDs. Some suggested taking diuretics to help relieve fluid retention whereas others didn't, quoting that there was also a lack of evidence.

All recommended the use of wrist splints. As alternatives to medications, some sites stated that acupuncture and chiropractic

care could benefit some people, whereas others suggested against both. Yoga was identified by one site as a useful treatment to reduce pain and improve grip strength.

All identified decompression surgery or release surgery for severe cases where symptoms lasted more than six months or where other treatments had not been effective. The surgery fail rate reported by sites differed however, from 4% through to 25%, with a further 25% only being partially successful. The definition of success or failure was not provided by the sites.

#### jokay57 said on 16 October 2013

I had a right CTR done 2 months ago as an open procedure and it has healed well. I hadn't realised how much feeling I had lost until it started to return. I had the left hand done last week by keyhole procedure. At first it felt really good, but over the last 2 days the discomfort in my fingers is getting worse as the week goes on. I was not expecting this at all. I cannot find any information as to whether this is normal or not.

#### DWINTH said on 28 December 2013

SURGERY 23 NOV 2013

I had open release surgery with local anthestic at Park Royal and i can say the needle hurt, never again will I have this.

10th December stitches out after which i have suffered with various pains in the wrist and burning in the area of the wound, i am right handed and work as an electrician or should i say did. I presently feel as if a 6inch nail is sticking through the base of the palm of my hand, i can only hope this will get better

#### jpbrooky said on 01 January 2014

I had open release surgery on my right hand nine days ago at Oswestry orthopedic.

The surgery was pain free and only lasted about ten minutes, my hand was bandaged but i was able to use it to get dressed afterwards and was on my way home within ninety minutes. I only used pain relief (paracetemol) on the day of surgery. The symptoms from which i was suffering have gone. My hand feels weak but getting stronger every day. The stitches are being removed tomorrow. This has been a positive experience for me and would advise anybody not to suffer with CTS and go for it!

#### annechar said on 16 March 2014

I had surgery on the 15th of January on my right hand. NCVT said I was moderate to severe in the right and mild to moderate in the left. The pain before surgery was about a 5/10 with numbness,tingling and swelling in my thumb area. Surgery took 15mins. I watched it all! It is now March and the area around the stitches is rock hard, I cannot put thumb to finger, lost my grip, cannot hold a pen or knife and I walk on crutches and this is becoming impossible. I am having a re-test and they want to operate again. No thanks, hand to sore to take another injection.

Claims administrators need to be conscious of the possibility of inappropriately restricting the range of therapeutic options in using a single evidence informed approach and applying the myth that a "one size fits all" rule for medical treatment.

When treating pharmacologically, the principles of Pharmaceutical Medicine state that every prescription written in ordinary clinical practice is a clinical trial because <a href="https://human.beings.are.genetically.different">human.beings.are.genetically.different (i.e. "aniso-genetic")</a>.

As the ODG has not approved either acupuncture or Carbamazepine to control pain directly associated with carpal tunnel syndrome, should the claims administrator be able to approve their use if the injured person requests these treatments and they have been known to work in a clinical setting?

Although adversarial relationships are not as prevalent in non-occupational medical treatment as in occupational medical treatment, they still exist, but are being positively addressed by placing more emphasis on <u>best practice</u> using "evidence-based medicine", which includes the treated person's values and preferences (patient-centered approach). Using the patient-centered approach in establishing a pain control plan, the patient's values and preferences play a very important role in deciding the medical treatments to be rendered.

Studies in the United Kingdom reported that a person's belief that a drug will not work can become a self-fulfilling prophecy and showed that the benefits of pain medications could be boosted or completely reduced by manipulating a person's expectations (Science Translation Medicine, Professor Irene Tracey, Oxford University).

The shift to "evidence-based practice" has come about because "evidence-based medicine" has often been based on RCTs conducted under tightly controlled conditions, which at times has made it difficult to integrate the evidence produced into everyday clinical practice. There is also a growing interest in using guidelines based on "practicebased evidence" as an alternative to "evidence-based practice" in nonoccupational medical treatment. This approach aggregates evidence based on individuals' medical history in their own environment (i.e. clinical setting as opposed to research). For example, treatments such as acupuncture to relieve pain from carpal tunnel syndrome may not be supported in evidence-based medicine due to a lack of RCTs or studies proving that it works, but in a clinical setting, may provide relief for some. Drugs such as the anticonvulsant Carbamazepine may also provide relief from pain associated with carpal tunnel syndrome in a clinical setting, yet there may not be evidence through RCTs or studies to support this.

Claims administrators accumulate large quantities of administrative medical data and hence have their very own practice-based evidence database, reflecting the collective practices of medical providers in treating injured persons. Their data's strengths and weaknesses can be determined based on elements such as, (1) the availability and accuracy of a provider's itemized service payment requests, (2) details relating to the injured person including gender, culture, age, co-morbidities (such as obesity, diabetes, hypertension, coronary heart disease and depression) and their related treatments (including pharmaceuticals), severity of work related injuries/illnesses, social and role functioning in everyday living and perception of their general health and well-being and (3) profiles on the medical providers such as their specialty training, years of experience, gender, age, culture, beliefs and attitudes, preferences, job satisfaction and financial motivation.

Combining "evidence-based practice" with "practice-based evidence" provides an opportunity for the claims administrator to establish their own protocols in assessing optimal care by helping to avoid ineffective treatment paths, yet allowing deviations based on a physician's judgement and experience and the injured person's expectations.



Claims administrator's databases containing prior rendered medical treatments can serve as a means to perform provider profiling (often referred to as a "Predictive Analysis Model") to reduce the possibility of waste, fraud and abuse.

Medical providers can be monitored on a number of fronts, such as their billing and medical necessity (utilization) patterns, which automatically highlights providers with unfavorable patterns so that they undergo greater scrutiny of their invoices prior to making a payment.

Claims administrators incur significant costs associated with performing reviews of providers' medical bills prior to making a payment, which in many cases is performed by bill review companies contracted by the claims administrators. Bill review companies generally charge either by line item or by bill. Fees ranging from 70 cents through to \$1.25 per invoice line item or from \$9 through to \$15 per bill are not uncommon.

Provider profiling also allows claims administrators to be selective as to which provider payment requests need to be submitted to a bill review company as well as providing incentives to providers who take greater care in submitting correct payment requests.

Even though there are laws, regulations and medical guidelines which govern and control the processes addressing workers' injuries and illnesses, with some jurisdictions enforcing transparency by collecting claims data through electronic data interchange (EDI), there is still an important factor that cannot be controlled and that is, an individual's ethical or moral dilemma.

Whether they be an examiner, adjuster, a nurse case manager, a pharmacist dispensing medications through a pharmacy or PBM, or the physician treating the injured person, all are challenged at some time with making ethical and moral decisions for the injured person, which are often influenced by economic incentives and the claims administrator's unique culture.

Much has been written about how claims administrators can improve on providing "good service", including how to identify administrative inefficiencies and implement optimum processes and systems. Examiners, adjusters, nurse case managers and other staff performances are often monitored through a dashboard feature within the claims administrators claims system. In many cases, this approach focuses on timelines associated with administrative tasks such as, making claims adjudication decisions and when penalties are likely to apply etc. Efficiencies are measured in cycle times such as the closing of a claim file or the time taken to complete a task such as a claim intake. However, primarily focusing on these dashboards to measure work performance, may strongly influence the ethical behavior of a person. Some examples of possible ethical dilemmas are:

- (1) The examiner or adjuster may not approve treatment for carpal tunnel syndrome with the conservative approach of wearing a splint, prescribing certain medications and taking work breaks or working reduced hours, which can take more effort to administer, but instead insist on surgery to reduce the administrative effort and close the claim sooner, but increase the claim cost, with surgery for carpal tunnel syndrome averaging as much as \$38,000;
- (2) A physician knowing that regular assessment for the efficacy and safety of prescribed drugs leads to better pain control, ignores this and just prescribes a high strength opioid in large quantities, reducing the possibility of a claims administrator's accusations of over utilization of medical treatment with potential threats of non-payment for services;

Payment terms negotiated between medical providers and claims administrators have been known to affect the quality of the services performed by the physicians. The electronic billing company, DaisyBill (<a href="www.daisybill.com">www.daisybill.com</a>) list the following claims administrators on their website, showing the average number of working days from bill submission until payment:

- TheZenith 9 days
- Sentry Insurance 11 days
- Hortica Florist Mutual Insurance 12 days
- Care West 14 days
- Liberty Mutual Insurance 16 days
- Hanover Insurance (CorVel) 16 days
- Berkshire Hathaway Homestate Companies (BHHC) 17 days
- Gallagher Bassett 18 days
- Travelers 18 days
- Sedgwick Claims Management Services (Sedgwick CMS) 18 days

(3) A nurse may request urine and blood tests for the detection of prescription narcotics, cocaine and heroin on each claim, regardless of whether the person has a history of abuse, increasing claims costs, but saving the nurse time by not having to investigate individual claims;

Source: Reuters, May 2014

Medicare paid medical providers \$457 million in 2012 for 16 million urine and blood tests, with three doctors paid a total of \$1.4 million for nearly 24,000 drug tests on just 145 patients.

Bill Mahon, former executive director of the National Health Care Anti-Fraud Association stated, "In some parts of the country every doctor and his cousin is hanging out a shingle to do (addiction) treatment. There's a tailor-made opportunity for ordering a profusion of tests instead of one. It's like turning on a spigot of money".

Reuter's reported that urine and blood tests are potential areas of fraud and abuse because guidelines for drug testing are vague, leaving the frequency of treating to the discretion of the provider.

(4) A claims administrator deciding how much effort should be devoted to performing due diligence on a medical provider before inclusion into their MPN, placing emphasis on the quantity of physicians rather than on the quality of the physician in their MPN. Some claims administrators boast that they have over 500,000 healthcare providers and over 50,000 pharmacies in their medical network.

In February 2013, the California Workers' Compensation Institute (CWCI), published a research study titled "Differences in Outcomes for Injured Workers Receiving Physician-Dispensed Repackaged Drugs in the California Workers' Compensation System". The study claims that physicians who dispense medications have an overall worse claim outcome than physicians who prescribe medications that are dispensed through a pharmacy. The study measured claim outcome based on medical treatment and indemnity costs and return-to-work, with payments of temporary disability benefits determining the duration the injured worker was not at work. The report did not separate results based on network physicians versus non-network physicians. A provider network can be a Preferred Provider Organization (PPO), Health Care Organization (HCO) or an MPN. However, a further article by the CWCI published March 2013, titled, "California Workers' Compensation Medical Network Utilization" made the following statement, "... MPNs have become the dominant means of workers' compensation medical delivery in California.". Both these articles are available from the website www.cwci.org.

It was also recently reported in California, that Michael D. Drobot, owner of Pacific Hospital in Long Beach between 1997 and 2013, was charged by the U.S. Attorney's office for paying kickbacks to doctors, chiropractors and others who referred patients to his hospital for surgery. Drobot paid kickbacks of \$15,000 per lumber fusion surgery and \$10,000 per cervical fusion surgery, which he financed by inflating the price of implanted devices used during spinal surgeries. In addition, California State Senator Ron Calderon (Democrat - Montebello) was charged for accepting \$28,000 in bribes from Drobot to support legislation delaying or limiting changes in workers' compensation laws that would have directly impacted Drobot's scheme.

It has been reported that Pacific Hospital submitted more than \$500 million in fraudulent bills between 2008 and 2013, with a large portion paid by the California workers' compensation system. The State Compensation Insurance Fund (SCIF) has a pending civil suit against Pacific Hospital relating to California workers' compensation claims.

Following the exposure of medical clinics such as "South Florida Pain" and "American Pain", owned by building contractor Christopher George and members of his family, the Florida Legislature enacted Florida House Bill 7095 (HB7095) effective July 1, 2011, prohibiting Florida physicians from dispensing controlled substances, such as hydrocodone, oxycodone, morphine, codeine and related drugs.

Physicians employed by George's "Pill Mills" routinely prescribed 180 to 240 30mg oxycodone tablets along with other pain medications as well as anti-anxiety medications. George operated four clinics in Florida, each earning \$50,000 per day. It was reported that the clinics owned by George, who along with members of his family are now serving jail sentences in Federal prisons, were connected with at least 56 overdose deaths.

Two physicians are also serving jail sentences, Cynthia Cadet, age 43 in connection to contributing to the death of seven patients, and Dr. Joseph Castronuova, age 74 in the death of two patients. Cadet was paid more than \$1 million and distributed 2.4 million pills over a period of 18 months. It is estimated that at least 18 million oxycodone medications were dispensed through the clinics operated by George.

In addition to the Drug Enforcement Administration (DEA) targeting Florida "pill mills", they have also focused on pharmacists and pharmacies who have, willingly or not, contributed to the abuse and fraud associated with dispensing of controlled substances. The pharmacy chain Walgreens agreed to pay \$80 million in fines to resolve federal charges associated with record-keeping and dispensing violations.

These examples would suggest that processes used by claims administrators to monitor their vendors' relationship such as performing due diligence before medical providers are included in their MPN, as well as medical providers' ongoing reviews including provider ranking are in need of urgent reappraisal. Further, reappraisal regarding scrutiny pertaining to the processes and controls in performing provider medical bill reviews and early fraud detection is also required.

As countries such as the United States, the United Kingdom and Australia continue to advance from a manufacturing economy towards a service-based economy, the frequency of traumatic injuries such as fractures and contusions, common in a manufacturing environment are declining. Cumulative (gradual onset) illnesses associated with pain are now on the increase especially as employees in the service-based industry are required to do more work under more demanding conditions. In Japan, "power harassment", such as verbal abuse or intimidation is regarded as a work-related disease because the employer has failed to provide a safe work environment.

Source: Japan Press Weekly, December 2013

A former female worker of Sumitomo Life Insurance Company on December 11 won about 40 million yen (approx US\$390,000) in compensation from her employer over power harassment by her supervisor.

The worker fell into a state of severe depression in 2007 because her boss frequently criticized her job performance by using harsh and abusive language. She quit her job in 2009 as she could not cope with the emotional stress and turmoil.

In 2010, she achieved recognition of her mental distress as work-related by labor authorities which confirmed that **power harassment by her boss badly affected her mental health**.

Besides the increased complexity of determining work-relatedness and compensability associated with cumulative illnesses, focus is also changing from dealing with an administrative event such as the most cost effective way to complete a process such as claim intake to responding to a human event and efficiently establishing a pathway for the injured worker to resume safe, gainful and sustained employment, which if not managed correctly, could result in long-term care and overall higher claim and administrative costs.

For some claims administrators, the transformation to a pathway approach to claims handling has already begun with the application of a multi-disciplinary and multi-professional approach. Some claims administrators may say this has existed since the 1990s, quoting such examples as:,

- 1. nurses deciding on and monitoring medical treatments,
- 2. a paralegal or attorney determining a compensability decision,
- external medical bill review companies determining appropriate pricing for services and performing medical utilization reviews and,
- pharmacy benefit managers (PBMs) monitoring and controlling pharmaceuticals by applying formularies, step therapies and therapeutic interchange expertise in addition to offering lower prices.

On the surface these examples may be regarded as providing a multi-disciplinary and multi-professional approach, but what is lacking is the implementation of a collaborative "team approach". It seems that each participant operates as an autonomous unit, resulting in an overall lack of synergy within the claims process caused by process discontinuity, exacerbated by a lack of accountability and transparency.

Examples of this are evident in the study conducted by Navigant Consulting for the State of California titled, "Workers' Compensation Medical Payment Accuracy Study, June 17, 2008" and more recently in the WCRI study titled, "The prevalence and costs of physician dispensed drugs, September 2013", which stated when commenting on the quality of pharmaceutical data available from medical bill review and payment systems of payers and their pharmacy benefit managers, "..., compared with data on other medical services, the data provided to WCRI on workers' compensation prescriptions, although improving, were less complete for a few data sources in some areas (e.g. NDC data in the earlier years and the number of pills per prescription.)". Information such as an NDC and the quantity of drugs dispensed are rudimentary when providing treatment involving pharmaceuticals. When this information is not readily available, the claims administrator's monitoring abilities and their understanding of the treatment plan by physicians becomes questionable.

The principles on which workers' compensation were originally orchestrated in 1884 by Prince Bismarck-Schonhausen in Germany were very simply - the employer is responsible for all costs associated in rehabilitating an employee who has experienced a work-related harmful change in their human condition regardless of who's at fault. Most countries around the world have a workers' compensation scheme with their own rules regarding the interpretation of "a change in the employee's human condition" as well as their own interpretation of what is meant by "rehabilitation", but, what every jurisdiction

responsible for a workers' compensation scheme has in common, is its concern with the efficiency and effectiveness of returning the injured worker back to safe, gainful and sustainable employment. A review of injured workers' forums and discussion groups on the internet however, suggests that claims administrators are only concerned with closing claims with as little cost as possible, regardless of the outcome to the injured worker. No unbiased studies have been conducted to date to either confirm or dispute this allegation.

In workers' compensation, the number of claims assigned to an examiner by a claims administrator varies, but generally falls into the vicinity of 150 claims per examiner. After adjusting the number of working days in a month (which can vary from 20 to 23) accounting for vacation time, sick and personal days, attendance of training days and adjusting the 8 hour working day to include lunch breaks, personal breaks and attending to non-claim related administration tasks, it can

be conservatively estimated that an examiner spends <u>less than 40</u> <u>minutes per month on each claim file</u>, which may result in dereliction of their duties.

In recent times, there has also been an increased interest in settling claims that may require more examiner attention by "compromise and release". Although a compromise and release lump sum settlement may appear to the injured worker to be in their immediate best interest, by accepting it, they give up their rights to future benefits. This ultimately shifts the burden of treatment from occupational to non-occupational, through either the injured person's own health insurance coverage, state medical coverage such as Medical or Federal coverage such as Medicaid or Medicare as well as other community services for the needy.

Source: Workers Compensation Institute and Workers' Compensation Appeal Board, Case No: ADJ1372133 (VNO 0488219), The Romano Trust on behalf of Charles Romano deceased (Applicant) vs The Kroger Co. dba Ralph's Grocery Co., permissibly self-insured, administered by Sedgwick CMS (Defendants), Opinion and Decision After Reconsideration.

## California Workers' Compensation Administrative Law Judge (WCJ) finds Sedgwick CMS egregious behavior increased the suffering of a horrifically ill individual

The Appeals Board identified 11 separate instances of unreasonably delaying medical care, ending in Romano seeking medical treatment through Medi-Cal (California's version of Medicaid, the federal health insurance program for the poor) and self-procuring additional treatment.

Jill Singer, President of the Central Coast chapter of the California Applicants' Attorneys Association (CAAA) stated, "This is just ridiculous. For every one story we know, there are thousands out there that may not quite rise to this level, but are close."

Extracts from the Appeal Board document follow:

Page 1, line 15. Defendant's repeated efforts to avoid or postpone its statutory duty to provide medical care, egregious behavior which increased the suffering of a horrifically ill individual.

Page 2, line 21. We have rarely encountered a case in which a defendant has exhibited such blithe disregard for its legal and ethical obligation to provider medical care to a critically injured worker. Sedgwick CMS, acting as claims administer for The Kroger Company/Ralph's Grocery Company, demonstrated a callous indifference to the catastrophic consequences of its delays, inaction, and outright neglect.

Page 4, line 7. Several times, defendant's claims adjuster, Theresa McDivitt, denied treatment (or withheld authorization) without consulting with a medical professional and without referring the request for treatment to utilization review.

Page 4, line 12. Payment for various medical services were delayed or never made at all.

Page 4, line 14. Defendant continued to deny or delay care through the end of applicant's life, <u>failing to authorize his final hospitalization at Community Memorial Hospital</u>, where he died on May 2, 2008 from cardiorespiratory arrest, respiratory failure and pneumonia brought on by him contracting methicillin-resistent staphylococcus aureus (the antibiotic-resistant staph infection know as MRSA infection) following surgery to his left shoulder on August 29, 2005 as well as other related medical conditions.

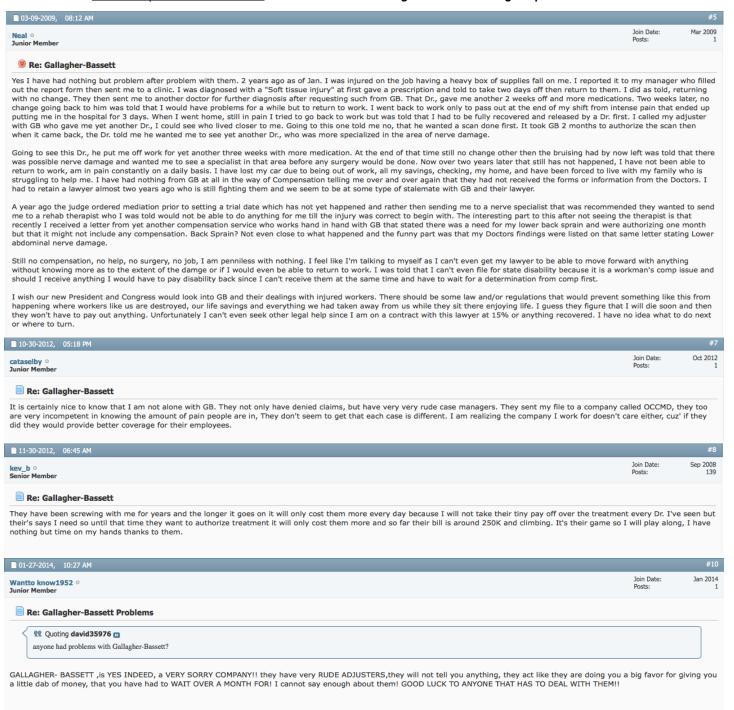
Page 9, line 23. Ms. McDivitt testified that she did not authorize this hospitalization because "they didn't know what was wrong with him."

Page 11, line 1. Medi-Cal submitted liens of \$7,807.85 and \$375,439.14 for various medical services provided to applicant from November 2005 through February 2007, with the majority of the services being rendered by Ventura County Medical Center, St.John's Regional Medical Center, Evergreen Pharmaceutical, and Country Villa Oxnard. It is undisputed that defendant never directly paid for these medical providers for treatment that occurred either before or after the October 25, 2006 award.

Page 14, line 24. The WCJ's Report makes it clear that he imposed the harshest penalties possible under section 5814 because of <u>defendant's extensive history of delay in the provision of medical treatment</u>; the effects of those delays on a paralyzed, catastrophically ill employee; the lengths of the various delays; and defendant's repeated failure to act when the delays were brought to its attention. Indeed, defendant's broad and extended pattern of unreasonable delays rises to the level of "**institutional neglect**".

A number of workers' compensation claims administrators promote themselves with expressions such as "honesty, integrity and a passion for doing things right", essentially establishing a harmonious group environment in addressing a work related injury/illness, yet some say the workers' compensation system continues to operate in an animus and adversarial environment resulting in an untrusting relationship between the claims administrator, the medical profession, the injured worker and the employer. This environment has been known to impact negatively on the injured worker's quality of life, their physical recovery and return to gainful employment.

Source: workerscompensationinsurance.com forum. Forum discuss Gallagher Bassett covering the period from 2009 to 2014.



When looking at treatments available to control pain, or measuring pain threshold and tolerance, there appear to be few differences between the treatment of occupational and non-occupational injuries/illnesses allowing all medical professionals to provide treatment. The application of "cook book" claims handling including claim reserving may have been possible for traumatic injuries in the past, but its current application to work-related illnesses is questionable. However, with a proper methodology, a claims administrator's own administrative medical data can provide valuable insight into the specificity of medical treatments, including their risk consequences in managing pain.

This article has looked at a variety of areas influencing treatments associated with pain control, and posed a number of issues that can only be answered by clearly focusing on the claims administrator's practices.

The benefit of intelligent and responsible assessment within claims handling is the hallmark to providing genuinely positive outcomes and the return to normal function for those with an injury/illness ensuring correct diagnosis, expedient treatment and best of all returning to the workforce with a healthy attitude having gained maximum work capacity, benefiting not only the injured person but all those associated as well.

