



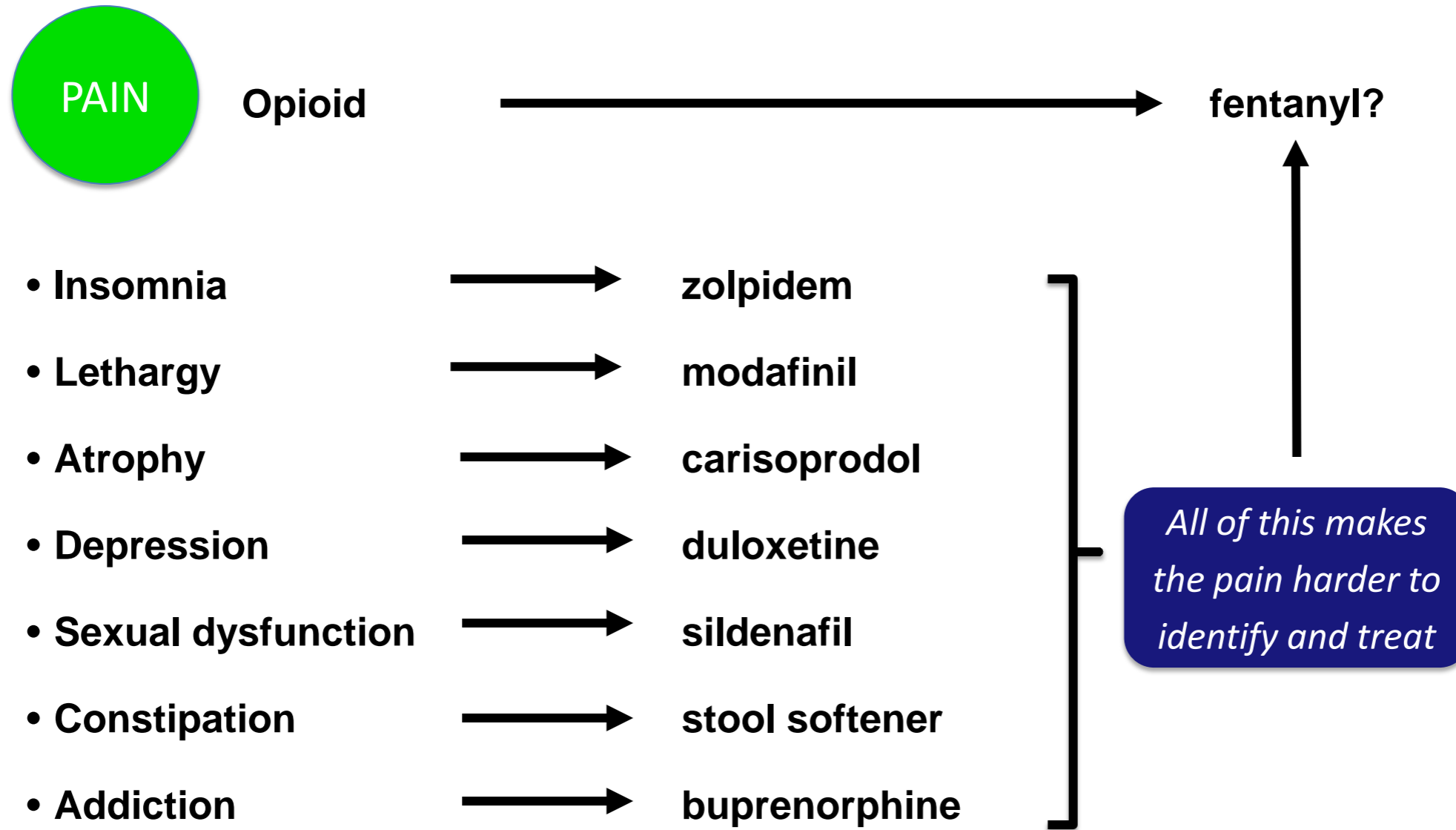
Tapering Injured Workers off Prescription Drugs

Learning Objectives

1. Define polypharmacy complexities
2. Explain the biopsychosocial model
3. Outline the weaning process
4. Examine real life examples – Good and Bad

Polypharmacy Complexities

Polypharmacy The Enemy of Function



Polypharmacy Opioid (narcotic)

- **Pain Purpose:** Relieve pain by acting directly on the central nervous system (oral, topical). Refills are generally prohibited without new script
- **Possible Side Effects:** Sedation, drowsiness, impairments, constipation, respiratory depression, nausea, headache, stomach pain. Extremely high potential for abuse, dependence, addiction and diversion
- **On-label Uses:** Before/during/immediately after surgery, cancer and AIDS patients
- **Red Flags:** Used more than 6 contiguous months, DOI of more than 3 years, no change in levels of pain or function, aggregate dosage exceeds 120mg MED/day
 - ACOEM's new guidelines establish **50mg MED/day**
- **Examples:** Actiq (Fentanyl lollipop), Exalgo (Hydromorphone ER), Avinza / Kadian (Morphine ER), OxyContin (Oxycodone ER), Nucynta (Tapentadol), Duragesic (Fentanyl transdermal), Ultram (Tramadol)

Polypharmacy

Morphine Equivalent Dosage (MED)

- A method developed to adjust for the various potency of opioids into a common measurement (morphine, which would be a 1:1 ratio)
- Per ODG, the Factor to be used when calculating MED
 - Codeine - 0.15
 - Fentanyl (Actiq) oral transmucosal - 10-100
 - Hydrocodone - 1
 - Hydromorphone (Exalgo) - 4
 - Methadone, 41 to 60mg per day - 10, > 60mg per day - 12
 - Oxycodone (OxyContin) - 1.5
 - Oxymorphone (Opana) - 3
- **(Quantity / Day Supply) = Daily Pill Count * Dosage * MED Factor = MED**

Polypharmacy

NSAID (non-steroidal anti-inflammatory drug)

- **Pain Purpose:** Relieve pain and inflammation by reducing enzymes and hormones that cause inflammation and pain in the body (oral, topical)
- **Possible Side Effects:** Nausea, vomiting, diarrhea, constipation, decreased appetite, rash, dizziness, headache, and drowsiness, fluid retention. The most serious side effects are kidney failure, liver failure, ulcers and prolonged bleeding after an injury or surgery
- **On-label Uses:** Acute musculoskeletal pain conditions, rheumatoid and osteoarthritis
- **Red Flags:** Used more than 6 contiguous months, aggregate dosage exceeds 3200mg/day, DOI of more than 3 years, prescriptions when OTC would suffice
- **Examples:** Flector patches, Voltaren (Diclofenac Sodium), Celebrex (Celecoxib), Ketoprofen, Mobic (Meloxicam), Relafen (Nabumetone)

Polypharmacy Skeletal Muscle Relaxant

- **Pain Purpose:** Relax muscles that control the skeleton
- **Possible Side Effects:** Sedation, drowsiness, dizziness. Others include central nervous system depression (Baclofen), hepatotoxicity (Dantrolene), dependence and withdrawal symptoms (Carisoprodol), toxicity in overdose and in combination with other substances (Cyclobenzaprine), low blood pressure (Tizanidine)
- **On-label Uses:** For spasticity (multiple sclerosis, spinal cord injury, traumatic brain injury, cerebral palsy, and post-stroke syndrome). For muscle spasms (fibromyalgia, tension headaches, myofascial pain syndrome, and mechanical low back pain or neck pain)
- **Red Flags:** Used more than 2 contiguous months, DOI of more than 3 years, no rehab program with active treatment
- **Examples:** Soma (Carisoprodol), Amrix (Cyclobenzaprine), Valium (Diazepam), Lioresal (Baclofen), Skelaxin (Metaxalone), Zanaflex (Tizanidine)

Polypharmacy

Skeletal Muscle Relaxant

- **Soma (Carisoprodol)**
 - Muscle relaxer that works by blocking pain sensations between the nerves and the brain. **The drug is intended to cause sedation, muscle relaxation and relief from structural pain.**
 - Interactions:
 - 662 drug interactions, 3 disease interactions, **alcohol**
 - Central respiratory depression may occur, particularly at high doses
- Stop using carisoprodol and call your doctor at once if you have any of these serious side effects:
 - paralysis (loss of feeling);
 - extreme weakness or lack of coordination;
 - feeling light-headed, fainting;
 - fast heartbeat;
 - seizure (convulsions);
 - vision loss ; or
 - agitation, confusion.

Polypharmacy Anti-Depressant

- **Pain Purpose:** Relieve symptoms of depressive disorders that can negatively affect the healing process
- **Possible Side Effects:** Upset stomach, dry mouth/eyes, increase in skin sensitivity, insomnia, drowsiness, changes in sex drive, changes in appetite and confusion. Serious side effects that require medical attention include constipation, difficulty in speaking, irregular heartbeat, trembling, stiffness of limbs, hallucinations and thoughts of suicide
- **On-label Uses:** Diagnosis of depression or anxiety
- **Red Flags:** Lack of objective findings supporting continued use, psych not accepted as compensable or pre-existing
- **Examples:** Wellbutrin (Bupropion), Lexapro (Escitalopram), Zoloft (Sertraline), Elavil (Amitriptyline), Effexor (Venlafaxine)

Polypharmacy Benzodiazepine

- **Pain Purpose:** Do not have any pain-relieving properties themselves, and are generally recommended to avoid in individuals with pain
- **Possible Side Effects:** Sedation, dizziness, weakness, unsteadiness, feeling of depression, loss of orientation, headache, sleep disturbance, physical dependence, withdrawal symptoms upon disuse
- **On-label Uses:** Anxiety and seizure disorders, insomnia, anesthesia, muscle relaxation, alcohol withdrawal
- **Red Flags:** Use for more than 2-4 weeks, excessive sedation, combination with opioids and/or Soma, alcohol consumption
- **Examples:** Xanax (Alprazolam), Valium (Diazepam), Ativan (Lorazepam), Klonopin (Clonazepam), Restoril (Temazepam)

Polypharmacy Treatment Red Flags

- Opioid dosage exceeding 50-120mg MED per day
- Acetaminophen dosage exceeding 4000mg per day
- NSAID dosage exceeding 3200mg per day

- Opioids used for more than 2 contiguous months after surgery
- Muscle relaxants used for more than 2 contiguous months
- NSAIDs used for more than 6 contiguous months
- Benzodiazepines used for more than 4 contiguous weeks

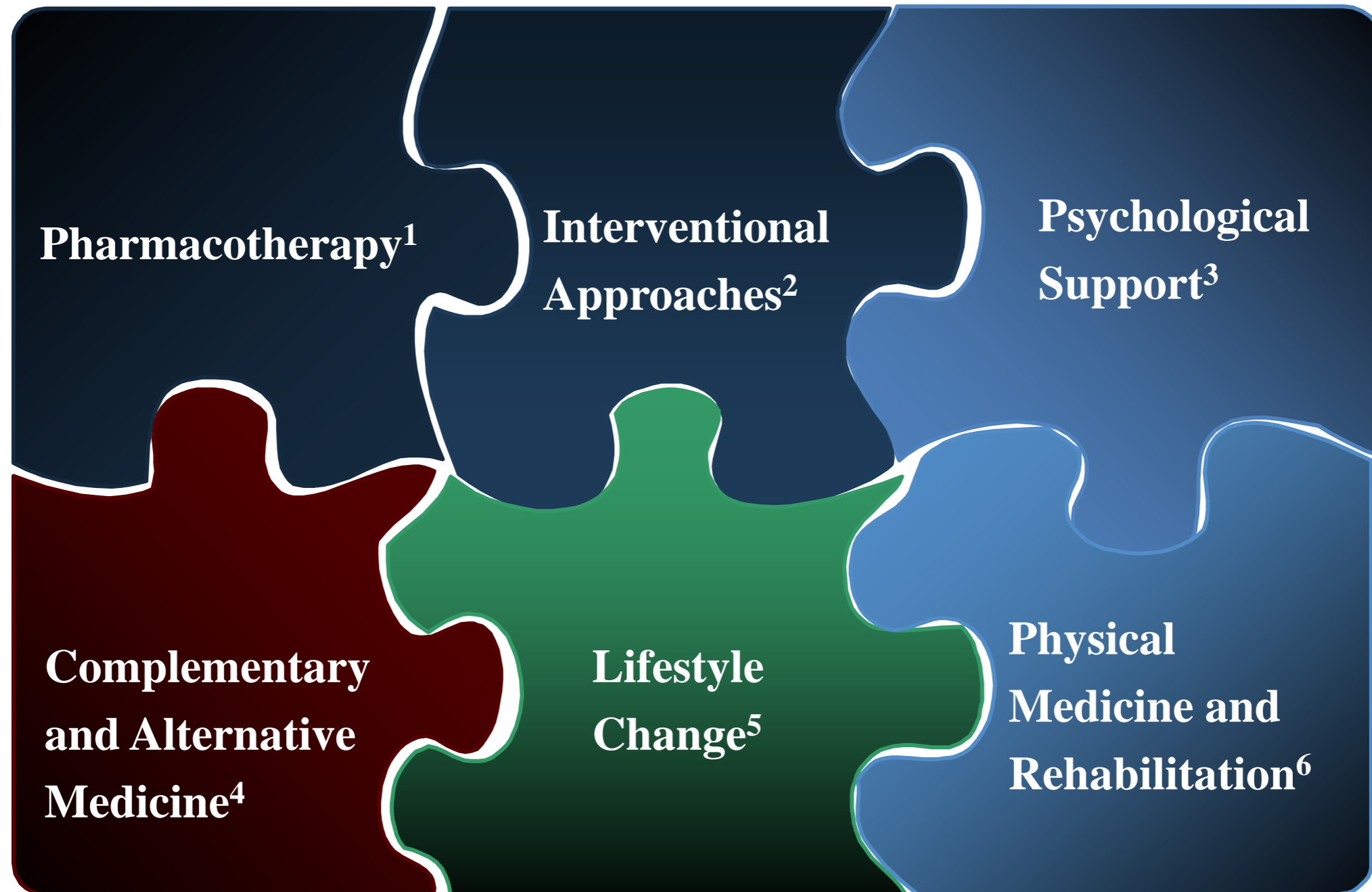
- No exit strategy by the prescriber
- Prescriber not utilizing the state's PDMP

Polypharmacy Treatment Red Flags

- Topical analgesics
 - Anti-narcoleptic drugs (Provigil, Nuvigil)
 - Hormonal supplements
 - Spinal Cord Stimulator / Intrathecal Pump and topical / oral analgesics
 - Drug regimen that has automatic refills
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- More than one prescribing physician involved in the overall drug regimen
 - No opioid treatment agreement
 - No urine drug monitoring or inconsistent results
 - No liver / kidney toxicity tests where applicable
 - Rx refills without doctor visits
-
- The “Future Medical” desk
 - \$10,000 Rx costs per year

The BioPsychoSocial Model

Treating Pain Multi-Modal Therapy



1. Krenzischek DA et al. *J Perianesth Nurs*. 2008;23(Suppl 1):S28-S42. 2. Lordon SP. *Curr Pain Headache Rep*. 2002;6(3):202-206. 3. Townsend CO et al. *J Clin Psychol*. 2006;62(11):1433-1443. 4. Patel G et al. *Med Clin N Am*. 2007;91(1):141-167. 5. Freedman MK et al. *Arch Phys Med Rehabil*. 2008;89(3 suppl 1):S56-S60. 6. Stanos SP et al. *Anesthesiol Clin*. 2007;25(4):721-759.

Bio-psycho-social

- What happens
 - ... between the ears
 - ... and at home
- is as important as what is physically wrong with the body

BioPsychoSocial Complications

1. Psychological makeup

- Catastrophic thinking
- Fear / pain / movement avoidance
- Perceived injustice
- Personality disorders
- Predisposition to addictive behaviors

2. Social environment

- Ethnic or cultural differences
- Family life
- Socio-economic circumstances

3. Co-morbidities

- Diabetes, hypertension, obesity, smoking, osteoarthritis
- All of this increases as the patient ages

BioPsychoSocial Due Diligence

Risk management before prescribing

- **Prior substance abuse**
 - Personal or family substance abuse history
 - **Tool:** DAST (Drug Abuse Screening Test)

- **Potential addiction/dependence issues**
 - Adverse childhood experiences (ACE), www.cdc.gov/ace
 - Neglect
 - Physical, emotional, sexual abuse
 - **Tools Before:** Diagnosis, Intractability, Risk, Efficacy (DIRE)
Opioid Risk Tool (ORT), Screener and Opioid Assessment for Patients with Pain (SOAPP)
 - **Tools During:** Current Opioid Misuse Monitor (COMM)

BioPsychoSocial Due Diligence

- **Psychological makeup**
 - Mental illness
 - Psychological stress
 - Coping skills
 - **Tool:** Patient Health Questionnaire (PHQ-9)

The Weaning Process

The Weaning Process Patient

More Art than Science

1. **Motivation** of the patient

- The patient must make a life change
- Evaluate ...
 - Psychological and/or physical dependence
 - Anxiety and/or depression
 - Family and other interpersonal factors
- Explain risks and potential benefits

The Weaning Process Patient

- Identify how patient will manage pain with less/no dosage
 - Recovery lifestyle
 - Coping skills
 - Function

Per the AMA Guides March/April 2011 Newsletter, “**21 of 23 patients** in the study reported a **significant decrease in pain** after detoxification”

Functional Restoration is a natural consequence of Weaning!

The Weaning Process Physician

More Art than Science

2. Competence of the provider

- Is the current drug regimen appropriate?
- Can the treating physician facilitate the weaning?
- In-patient / out-patient?
- Is CBT / MI required first?
- Is the goal reduction in dosage or removal of drugs?

The Weaning Process Physician

- Manage the withdrawal symptoms
- Assess co-morbidities and complicating factors
- Separate pain management from disease management
- Create a tapering strategy
 - “An Analysis of Drug Therapy Tapering Guidelines”, whitepaper co-authored by Mark Pew and Dr. Kimberly Vernachio
 - Started with 257 guidelines, only 18 met selection criteria
 - **ZERO** addressed how to taper polypharmacy regimens
 - Physicians have little guidance for how to taper complicated drug regimens

The Weaning Process

Standard of Care

Per Official Disability Guidelines (ODG)

- For patients that are not addicted and on relatively low dosage ...
 - Taper by 20-50% per week
- Otherwise a slower process is suggested ...
 - 10% every 2-4 weeks, down to 5% once $\frac{1}{3}$ the original dosage
- **Each patient is different in response and duration**

The Good, Bad and Indecipherable

Real Examples from the front lines