

3rd Annual Drug Abuse Symposium

The Specialty of Pain
Management
Pharmacologic Tools of the Trade

T E King MD
APACGroupe.com

Snake Oil & Patented Poisons

2004.043

DR. KING'S
NEW DISCOVERY
FOR
COUGHS COLDS
AND
ALL LUNG TROUBLES
ELECTRIC BRAND
BITTERS
DR. KING'S
NEW LIFE PILLS
FOR SALE BY

GEORGE EBERLY,
...DEALER IN...

GENERAL MERCHANDISE.

PERSONALLY GUARANTEES
...DR. KING'S NEW DISCOVERY...
ELECTRIC BITTERS,
NEW LIFE PILLS
AND BUCKLEN'S ARNICA SALVE.
AT OLIVE, VA.

BUCKLEN'S ARNICA SALVE
COMPOUND
THE SALVE
FOR ALL THE
WORLD

ARNICA PLANT

**DR. KING'S
NEW LIFE PILLS**
Be careful when you take in advertising
and DR. KING'S NEW DISCOVERY,
bearing the famous "snake" trademark.

THE ONLY PILLS
THAT GIVE
PERFECT SATISFACTION
IN ALL CASES.

Hagley Museum and Library

DEFINITIONS



Papaver Somniferum
"Poppy Plant"

- Opium
 - Fluid obtained from the poppy plant
- Opiate
 - A substance derived from opium
- Opioid
 - A substance with morphine-like actions, but not derived directly from the poppy plant

DERIVING OPIUM FROM THE POPPY



Papaver somniferum Pod
Photo by Eric Clausen, © 2000 Erowid.org



- After flowering, the petals drop in a few days leaving bulbous green capsules atop the stalks. These are the seed pods.

PAPAVER SOMNIFERUM



- Incisions are made in the pods and the milky fluid that oozes out is air dried. This must be done while the pods are still green.

OPIATES ARE DERIVED FROM THE POPPY POD

CONTENTS OF THE POPPY POD FLUID:

- Morphine 4 - 21 %
- Codeine 1 – 25%
- Plus 20 other alkaloids



Opium Availability

- Non-prescriptive in the 1700's and 1800's
 - Opium powder (relatively insoluble)
 - Laudanum (dissolved in alcohol)
 - Paragoric (dissolved in camphor)

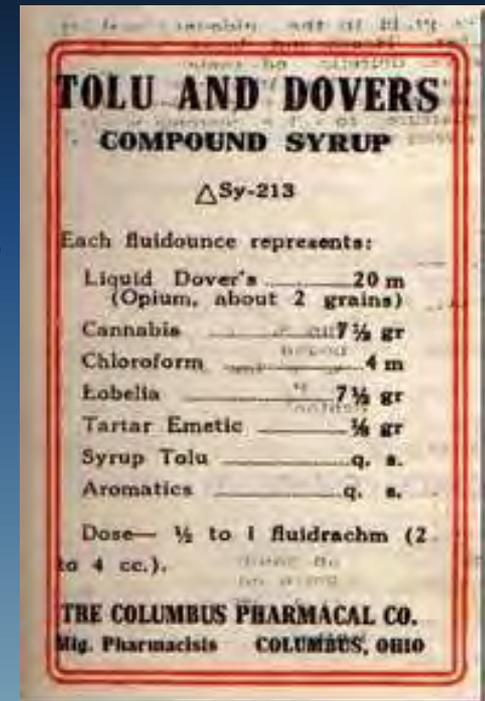
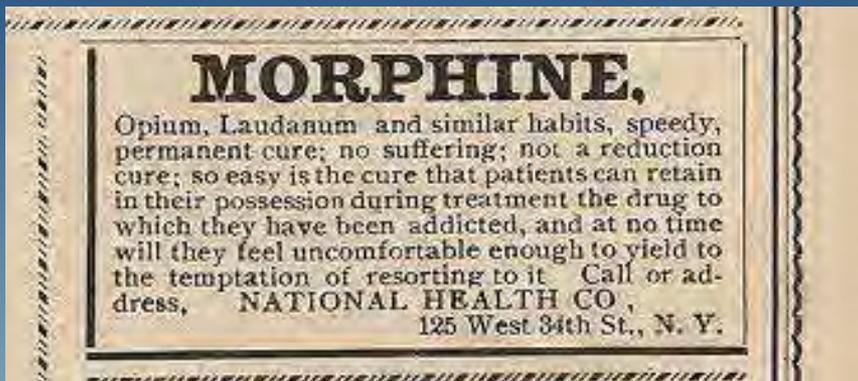


“Laudanum.- Best Turkey brand opium, 1 oz.; slice, and pour upon it boiling water, 1 gill, and work it in a bowl or mortar until it is dissolved; then pour it into the bottle, and with alcohol of 76 per cent, 1/2 pt., rinse the dish, adding the alcohol to the preparation, shaking well, and in 24 hours it will be ready for use. Dose -- 10 to 30 drops for adults, according to the strength of the patient, or severity of the pain.”

Dr Chase's Recipe's 1874

Commercial Opiate Availability

- Morphine isolated 1804 (5-21% of the opium latex)
- Merck began marketing morphine 1827
 - Civil War soldier dependency: “the soldier’s disease”
- Patent medicines gained popularity 1880’s
 - Alcohol (10-60%), morphine, cannabis, cocaine
 - Rx: Colds, cardiac disease, teething, hunger pains



Then along came Heroin...

- First synthesized in 1874
- Sold commercially in 1898 by Bayer
 - “non-addictive substitute for morphine”
 - Available in grocery stores and Sears and Wards catalogues



- Heroin again spiked 1960's



Oxycontin joins the ranks

- 1991 -1994: Pain Management Training, Certification, chronic/cancer pain concepts
- MS Contin 1984 Purdue Frederick
- Oxycontin 1995 "...addictiveness much less than 1%)

In 2007, Purdue Pharma pleaded guilty in federal court in Virginia to criminal charges of misbranding the drug with the intent to defraud and mislead the public about its addictive qualities.



300 years of lessons learned...

Our society still suffers from:

- Fundamental misunderstanding of opiate pharmacology
 - Opiate receptors
 - Tolerance, drug interactions
- Fundamental misunderstanding of pain physiology
 - Chronic pain/ acute pain/ cancer pain/ nerve pain
- Ignorance of opiate/psychology interactions
 - Psychiatric diagnoses (depression, anxiety, PTSD)
 - Escape from social/financial stressors (seeking alternate reality)



“Drugs ...an everyday safeguard against pain, poverty, and boredom.”

Summary Goal

- The 600-1000 % increase (since 1999) of prescription drug morbidity and mortality is mainly due to a stunning increase in societal permissiveness with respect to drug sharing.
- Since 90% of total opiate supply is via direct prescribing, our role is to address the providers.



Sought After Opioid Effects

- Analgesia
- Euphoria
- Anxiolysis
- Disassociation



But you may get respiratory depression, loss of judgment, hallucinations and endocrine changes as part of the transaction.

Morphine – The Gold Standard

- Multiple dosage forms available
 - extended-release cap/tab
 - Avinza: daily dosing
 - Kadian: q12h dosing
 - MSContin: q12h dosing
 - Immediate-release tab
 - oral suspension (Roxanol)
 - suppository (RMS)
 - parenteral injection (Duramorph, Infumorph)



“I would definitely say Oxy is better than Morphine. I got the MS Contin a few times and I didn't really feel much until I smoked but when I did oh man it was great. But nothing beats OC.”



Codeine Derivatives

(the most commonly abused opiates)

- Used in moderate-severe pain
- Hydrocodone
 - combined with acetaminophen (Lorcet, Lortab, Norco, Vicodin, Zydone)
 - watch amount of acetaminophen (max: 2 gm/day)
 - Brand New! Zogenix
- Oxycodone 
 - extended-release tabs (OxyContin)
 - immediate release caps/tabs (OxyIR, Roxicodone)
 - oral solution (Oxyfast, Roxicodone)
 - Combined with aspirin or acetaminophen (Percocet, Percodan, Tylox)



“SWIM has a hard time deciding which one he likes best. The HC offers more of a “melt in your couch”, “warm blanket” feel, but OC offers more striking euphoria and profundity”

Morphine Derivatives: Hydromorphone



- Dilaudid®
 - 2, 4, 8 mg tabs, rectal suppositories, oral solution, injectable
- Palladone®
 - 12, 16, 24, 32 mg extended release
- Schedule II
 - 2 to 8 times the analgesic potency of morphine but shorter acting and more sedating

“I find the rush pretty comparable from either heroin or dilaudid, but the actual high on dilaudid has never been nearly as good as heroin for me.”



Morphine Derivatives: Oxymorphone (Opana)

- Highly selective for mu receptor
- More potent than morphine
- Forms:
 - immediate release tab
 - do not take with meals: high fat increases absorption
 - extended-release tab
 - do not take with meals or alcohol: alcohol increases absorption



“Opana ER was the first thing doctors gave me that helped at all and now that they have changed the formula I'm in a lot more pain. I want to break down the formula so I can snort it, as I am told I may get more pain relief and increase bioavailability of the drug.”





Opana robbery

A masked man walked into a Fort Wayne, Ind., drugstore early one Saturday morning, approached the pharmacy counter and, realizing it was closed, left. An hour later, wearing the same mask, he entered the store across the street, handed the pharmacist a list of drugs scrawled on a napkin and threatened to kill the pharmacist if he didn't get them, police say.

Fentanyl



- Highly lipophilic
- Causes less histamine release than other opioids
- Unique dosage forms/delivery devices
 - transdermal patch (Duragesic)
 - lozenge (Actiq)
 - buccal tablet (Fentora)
 - transmucosal film (Onsolis)

“Such a crying shame. If we could get a proper quality product every time even though it may be illicit still it would go a long way to cutting out many of the problems associated with addiction.”



Comment from a Fentanyl user:

"I tried smoking the gel (too short), eating it and swallowing it (disgusting), and sublingually or buccally (between your gums and the side of your mouth), and i found sublingually works the best.

I think the "danger" comes from the fact that Fentanyl is a damn concentrated med and it is easy to over do it. The dose is in micrograms, which can make eyeballing a problem if you are not careful and can flat out KILL you if consumed at once.

The only other thing I'll say is that Actiq, in the 1.6 mg strength, used like halfway, is a trip and a serious high for me. The Fent pop is a real treat!"



Meperidine (Demerol)

Not a first line agent

- Variable oral bioavailability
- Short duration of action
- Relatively low potency
- Neurotoxic metabolites
 - Normeperidine has very long half-life
- Multiple drug interactions

"i hate demerol. it is a strange drug, gives a dirty high IMO and is much more toxic than most other opioids and is prone to weird side effects."



Methadone (Dolophine)

- Not a first-line opioid
- Half-life: 22 hrs
- Duration: 3-6 hrs (initial); 8-12 hrs (chronic)
- Pros: cheap; good for refractory pain
- Cons: unpredictable; difficult to dose; drug interactions



Methadone

An Opiate with Special Risk Factors

- People die
- Highly lipid soluble: long and variable half life
- Analgesic half life shorter than elimination half life
- Predisposed to drug interactions (p450 enzymes, smoking, protein binding)

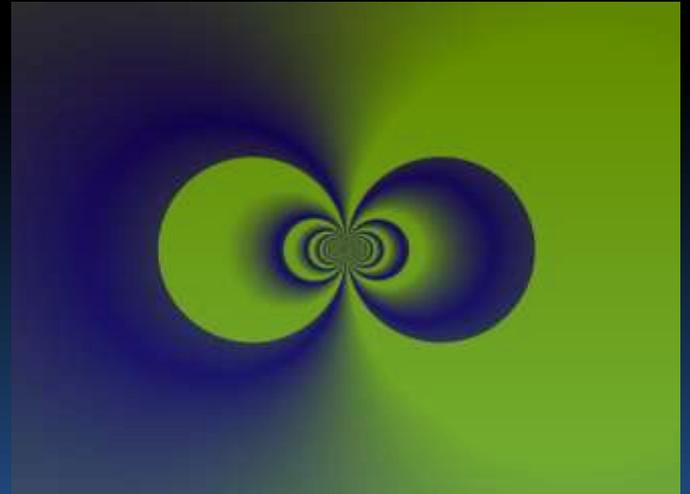


“Methadone is an opioid and thus provides the user with many of the same effects of Heroin, which are serenity, peace of mind, a feeling of well being, bodily warmth, loving feelings, social feelings. The effects are felt strongest for 6 hours but they do last for 24 hours. “



Tramadol (Ultram)

- Dual mechanism of action
 - weak mu agonist
 - NE reuptake inhibitor
- Used for moderate pain
- Less respiratory depression than opioids
- May enhance risk of seizures
 - max dose: 400 mg/24 hrs
 - decrease dose in elderly & renally impaired



The opinion of one Tramadol user:

"I recently scored a small prescription of Ultram from my doctor for my migraine headaches. Being an experienced and responsible drug user for several years now (Marijuana, Salvia, Opiates, Sedatives, Amphetamines, Hallucinogens, etc) I couldn't resist checking out it's recreational uses.

I highly recommend trying ultram to all you responsible users out there, especially if you enjoy any type of opiate, as the effects are very similar. Furthermore, it is quite easy to get because it isn't yet scheduled, so doctors prescribe it more readily. "



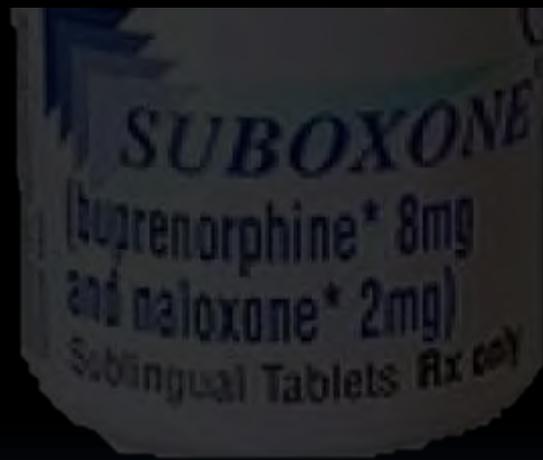
Mixed Agonist-Antagonists

- Not first line agents
 - causes withdrawal in patients on opioids
 - ceiling effect on analgesia
 - psychotomimetic adverse effects
- Lower abuse potential?

Examples:

- Butorphanol (Stadol)
- Pentazocine (Talwin)
- Buprenorphine (Buprenex/Suboxone)





Opinion of a first time Suboxone user:



“First of all, just like with the sisters morphine and heroin, all my pain was gone in just about 5 minutes. Then my anxiety melted down to nothing.

The last effect to softly leave me was the blockage of all anxiety and depression. The total experience was give or take 36 hours and the first thing I did was call and get on the waiting list of every doctor who prescribes this within a 50 mile radius of my house. Will I do it again? The only thing that could stop me would be if every trace of it as well as its formula were wiped off the face of the earth.”

Concept of Enhancers

Performance (athletic) enhancing drugs have an analogy in the microculture of illicit drug use.

These non-opiate drugs are known as *enhancers*, and can include:

- OTC drugs
- Prescription drugs

“I have 150mg of benedryl, 60mg of dextromethorphan and 25mgs of hydrocodone. Are these safe to take all together? I'm guessing yes but just making sure... couldn't find anything for this mixture on google.”



Enhancers (the death run)



Obvious Enhancers include:

- Mixed narcs
- THC ...misperception of safety
- Alcohol ...cheap availability
- Caffeine ...universal

Re: Mixing opiate boosters?

"Alcohol is definitely not a good idea (too much CNS depression ---> possible respiratory depression). Weed maybe."



Benzodiazepines

- Sedative: Calm down, treat agitation
- Hypnotic: Induce sleep
 - go to sleep fast, feel refreshed tomorrow
- Anxiolytic: Reduce anxiety
 - physical, emotional, cognitive

“oxy and valium would indeed be very nice, but you would need less of each as to what you would normally take.

xanax and oxys is more likely to put you to sleep (after a bit of fun lets say lol) where as the valium would add more of a euphoric relaxing aspect.”



Benzodiazepines

unique and dangerous enhancers

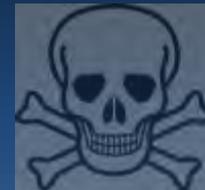
- Multiple prescriptives:
 - Valium, Ambien, Klonopin, Xanax, Dalmane, Versed, Halcion, Restoril, Lunesta, Ativan
- Pharmacologically recognized as depressants
- Rapid acting, lipid soluble



“What is a benzo xanax high supposed to be like? For purely for recreational use, I have no problems except depression and insomnia. Anxiety is not an issue with me.”

BZD: Adverse Effects

- Overdose:
 - Rare fatalities if BZD alone
- Severe CNS & Respiratory Depression if combined with:
 - Alcohol
 - barbiturates (Fiorinol)
 - narcotics
 - tricyclic antidepressants (Elavil)



8X death increase

“Benzos can be really fun, xanax is on the top of my list right now, clonazepam a little towards the bottom. They put you in a loose, easy going stupor the same way as alcohol, but without the dizziness and sickness. Low doses of them with alcohol is pretty safe as well. And I mean LOW doses of both.”



Methadone and Benzos

a signal combination

- The lipophilicity, mutual depressant effects, and addictive tendencies of these two drugs make this *the* lethal combination.
- Note our cultural prevalency of Ambien.



"It's ok to walk close to the edge... just be careful so you don't fall off."



Antihistamines



- Benedryl (itching)
- Phenergan (nausea)
- Zyrtec (allergies)
- Dramamine (motion sickness)
- NyQuil (congestion)
- Chlortrimeton (runny nose)

"When I was working as an electrician's apprentice I picked up a little trick from my boss. We used to buy packets of a non-drowsy antihistamine then proceed to open all the capsules up, separating the colors. My boss figured out (through trial and error I guess) that the white ones were the 'non-drowsy' part, (i.e. a stimulant!). We'd then line them up and sniff them through an empty screw driver handle".



“Pearls” from an antihistamine user:



“Those who use diphenhydramine (Benadryl) recreationally should take a higher dose than recommended (usually between 225mg and 450mg) for its deliriant effects. Diphenhydramine also is a component of the recreational form of heroin known as “cheese” or “chiva”. The mental effects are described by many as “dreaming while awake” involving visual and auditory hallucinations which, unlike those experienced with most psychedelic drugs, *often cannot be readily distinguished from reality.*”

People who consume a high recreational dose of Benadryl can possibly find themselves in a hallucination which places them in a familiar situation with people and friends and rooms they know, while in reality being in a totally different setting. Inexperienced users of hallucinogens are liable to panic.”



Neuropathics

Neuropathic medications are generally classified as anticonvulsants but are used to treat:

- Chronic sciatica
- Shingles
- Peripheral neuropathy
- RSD

“I immediately took 6 capsules (6x150mg) and an hour later a strong high came.
Now I will only use the lyrica IV.

(it is perfect for injection, you empty the capsule in the cup, and the only thing soluble is the Pregabaline... So you shoot a very pure solution)”



Neuropathics



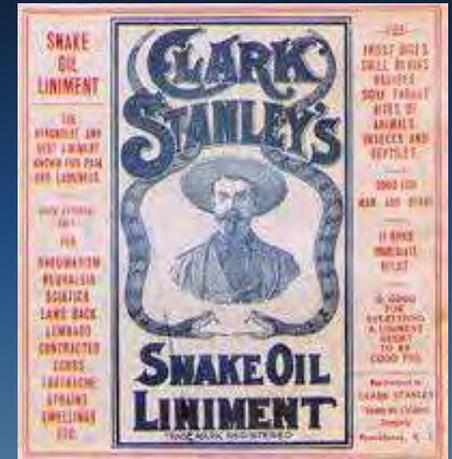
- Lyrica – pregablin (fibromyalgia, chronic nerve pain)
- Neurontin - gabapentin (seizures, chronic nerve pain)
- Topomax (headaches, chronic nerve pain)

“If gabapentin is just another name for pregbulin then hell yes it gets you high as fuck! Start off with 600mg for a good strong buzz. But that is only if the name you called it is pregbulin. I aint ever heard of gabapentin.”



Muscle Relaxants

- Methocarbamol (Robaxin)
- Cyclobenzaprine (Flexeril)
- Chlorzoxazone (Paraflex)
- Carisoprodol (Soma)
- Orphenadrine (Norgesic)
- Metaxalone (Skelaxin)
- Baclofen



“I love somas, but just not by themselves, not dick sizing but i just took 700mg soma, 60mg oxycodone, 2mg xanax, 2mg ativan, 20mg valium and i feel great, not nodding out yet, but I think 3 should make you feel good.”

Muscle Relaxers

"It was a dream, I know that now. But while it was happening, it wasn't a dream. It was to real to be a dream. I had suddenly found myself driving down a road, cornfields on both sides of me. My car was missing everything but the wheels and a metal bar in-between the front and back axels. The sun was shining; it was probably 11 in the morning. A cop was in the process of writing a speeding ticket to a car on my right.

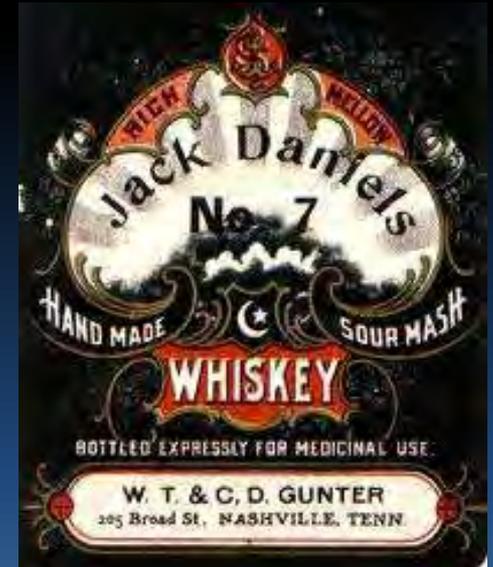
I was high as can be. All of a sudden I was upstairs in my friend's house, alone, smoking pot. I looked out her window; it was night. I thought to myself "man, I'm really flipping high. I hope *****'s parents don't come up here." And then, I woke up. It was more like I sprung out of bed. I was dreaming! I couldn't believe how real the dreams had been. I was actually feeling high in the dream, I could actually feel the sun on my skin when I had been "driving", and I felt actual fear of her parents catching me... yet it was only a dream? What is this stuff, I asked myself.

I hope this look into the somewhat-obscure drug baclofen is at least an interesting read!"



Muscle Relaxer Side Effects

- **Drowsiness**
- **Insomnia**
- **Dizziness**
- **Weakness**
- **Hypotension**
- **Ataxia**
- **Mental Confusion**
- **Inability To Focus On Tasks**



“The obvious and giant disclaimer here is that booze is a SURE way to pass the hell out into a dangerous coma of suck. Don't go out and do six shots of vodka with a stack of muscle relaxers - think of them more of a kick-start than a true combo. Drinking enough to get tipsy is drinking too much.”



Cough and Cold Antitussives

Blogger question:

- 💧 “i wonder if there are other things that u can use to get high off of besides going and buying weed or any other drug, is there anything i can use around the house that can get me high too? Need response ASAP “

Blogger response:

- “Umm...cough medicine, chewables, diet pills, pretty much just about any store bought medicine.. just look on the back... if anything says *dextromethorphan* then you can get high off of it.” 

CIA research initially investigated dextromethorphan as a potential non addictive substitute for codeine. The euphoric effects turned out to be too similar to ketamine.

Cough and Cold Opiates

- Tussionex (hydrocodone and chlorpheniramine)
- Cheratussin (codeine)
- Prometh with Codeine (promethazine and codeine)
- Lortab Elixer (hydrocodone)
- Robitussin AC (codeine)



“SWIMS MD is about to Rx him a syrup for a deep cough. SWIM knows that Tussionex has definite rec. value, but is unsure if it would be of any use to him, mainly because his opiate tolerance is fairly high (60 mgs oxy or 70mgs hydro are needed to produce good fx) SWIM is praying for Tussionex, but if he gets another, should he even bother attempting to use it as anything but cough medicine?”



Amphetamines

These are the true stimulants.

Neurotransmitters involved in various reward pathways in the brain appear to be the primary targets.

- Adderall
- Dexedrine
- Desoxyn
- Didrex
- Vyvanse
- Benzedrine

“There's a million more things I could say about the potential of this amazing drug (Adderall), but to sum up the experience of a strong amphetamine high, I could only say that it is like a life-giving breath of fresh air. ”



Uppers and Downers and All Arounders

- Depressants:
 - Opiates
 - Benzodiazepines
 - Muscle relaxers
 - Antihistamines
 - Alcohol
 - Cough and cold
- Stimulants
 - Amphetamines
 - Nicotine
 - Cocaine
 - Ecstasy (amphetamine)

“I've been thinking pretty deeply for the last few days about how interesting it is that there are some people who are affected by uppers to almost a religious extent, but it seems like these people also don't really get off that much from downers (even oxy). The opposite I've found is also true in my small, limited view of the world. Like me: I'm a downer person. Adderall, Ritalin, and even meth AND ecstasy are not very euphoric to me (anymore, at least lol)... but painkillers, xanax, etc... oh my, they hit me in all the right places.”



The Killer Combos

- The Unholy Triad
 - Opiate, benzo, enhancer
- Mixed opiates
- Methadone in any combination
 - particularly with benzos
- Alcohol in any combination





our objective metric

- The majority of Pill Mill prescribers are family practice (61%).
- Pain management is often a thin diagnostic guise for the pursuit of drug diversion

- The provider's INSPECT
 - Will define a prescriptive profile
- The patient's INSPECT
 - Will define a consumer profile

Reviewing an INSPECT Report

- Patient age range
- Frequency of clinic visits
- Degree of poly pharmacy (death combos)
- Quantity of controlled substances (per day dosages)
- Inferred diagnoses (pain, anxiety, depression, allergies, cough)



(Full INSPECT evaluation is topic for another lecture.)

In Summation:

“Do no harm.”

- History confirms that people will seek out a pharmacologic escape as they pursue an alternate reality.
- Unfortunately, neither legislative effort nor medical regulation has substantially changed this course of human desire.
- It does seem prudent, however, to continue pursuit of public safety by requiring medical providers to practice in an ethical manner.



"If you drink much from a bottle marked 'poison' it is certain to disagree with you sooner or later."



Lewis Carroll
Alice-in-Wonderland

T E King MD
APACGroupe.com