

PRESCRIPTION DRUG ABUSE



70% OF ABUSERS GET THEIR
RX DRUGS FROM FRIENDS AND FAMILY.

HOME

ABOUT

EDUCATION

DONATE

NEWS & EVENTS

CONTACT US



PROFESSIONAL EDUCATION

Lorem ipsum dolor sit amet, consectetur adipiscing elit sed eiusmod tempor incididunt labore dolore magna sadiplieds etas supra lorem dolores.



COMMUNITY EDUCATION

Lorem ipsum dolor sit amet, consectetur adipiscing elit sed eiusmod tempor incididunt labore dolore magna sadiplieds etas supra lorem dolores.



STORAGE & DISPOSAL

Lorem ipsum dolor sit amet, consectetur adipiscing elit sed eiusmod tempor incididunt labore dolore magna sadiplieds etas supra lorem dolores.



HOW TO GET HELP



RESOURCES



DONATE

Dinner Discussion Objectives



- **Frame the State of Our Current Situation**
- **Outline MMA's initial Plan**
- **Recommend Area's for Future Development**

PRESCRIPTION DRUG ABUSE



Is There a Better Road?

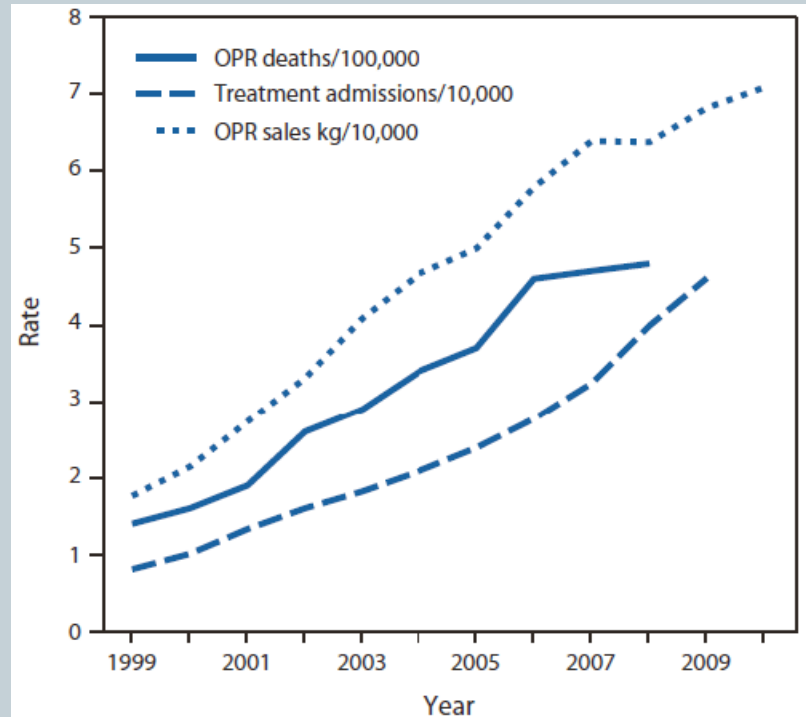


Brief History



- **Chronic Pain affects 100 million Americans, more than Diabetes, Heart Disease, and Cancer combined.**
- **Economic toll based on loss of productivity and increased health care costs estimated at 560-635 Billion Annually. About \$2,000 for everyone living in the US**
- **1996-Dr. James Campbell gives an address to the American Pain Society and states, “If pain were assessed with the same zeal as other vital signs, it would have a much better chance of being treated properly.” Pain as the 5th Vital sign is coined.**

Opiate Availability

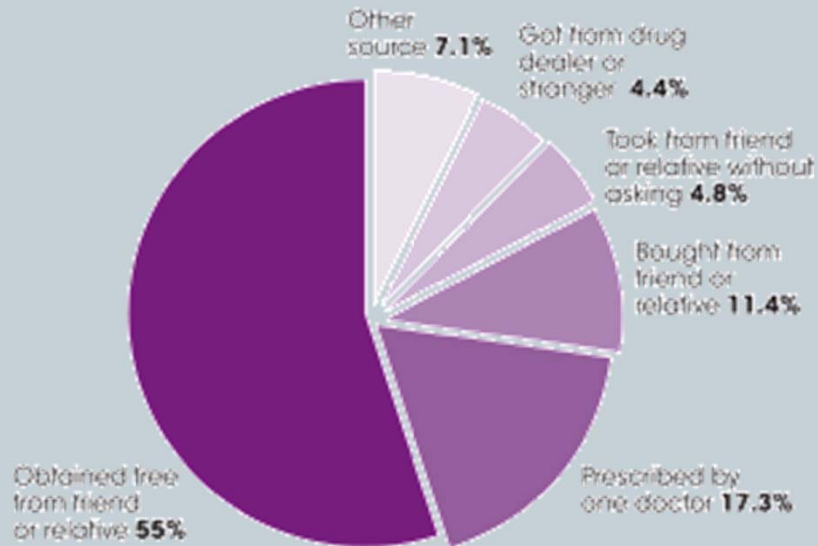


2010- Enough Opiates available to the General Public to medicate every adult in America with 5mg of Hydrocodone every 4 hours for an entire month

Where Do They Go?



People who abuse prescription painkillers get drugs from a variety of sources⁵



Most prescription pain killers are prescribed by primary care physicians, internal medicine doctors, and dentists. Roughly 20% of providers, prescribe 80% of all prescription pain killers

What Happens?

In 2008 there were 14,800 prescription pain killer deaths

For every **1** death there are...



10 treatment admissions for abuse⁹

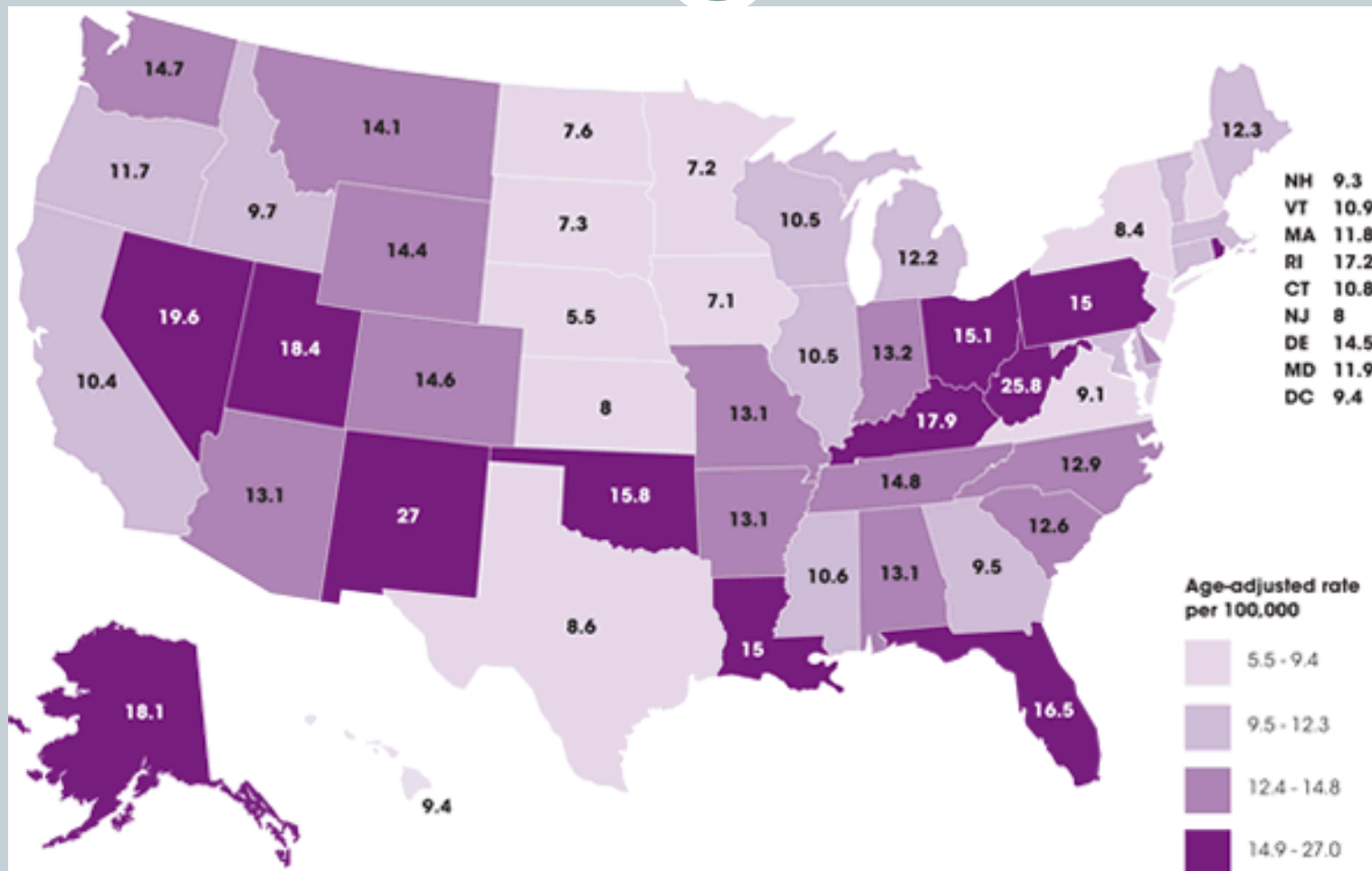
32 emergency dept visits for misuse or abuse⁶

130 people who abuse or are dependent⁷

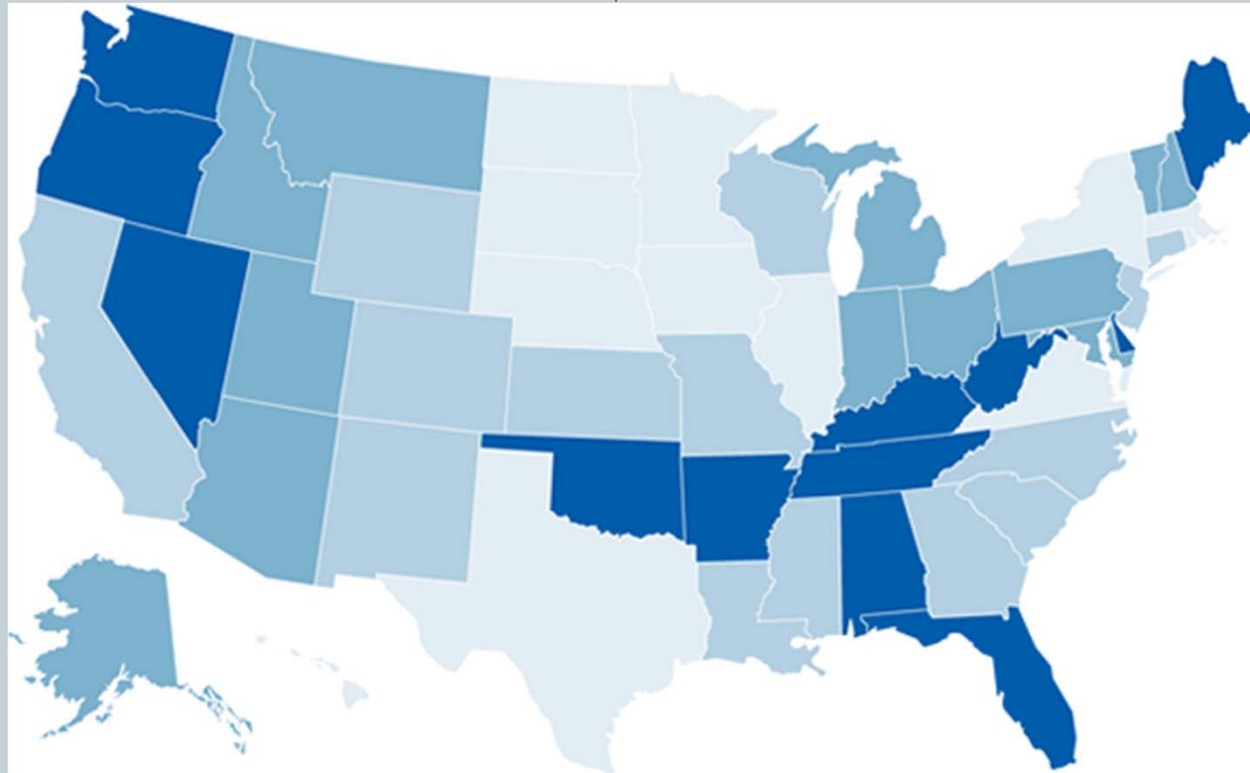
825 nonmedical users²

2010-2 million people reported using prescription painkillers non-medically for the first time within the last year-nearly 5,500 day.

Montana's Drug Overdose Rate 2008



Quantities of Prescription Painkillers Sold



**Kilograms of prescription painkillers sold,
rates per 10,000 people**



Current Nature of Opiates



- A scorpion and a frog meet on the bank of a stream and the scorpion asks the frog to carry him across on its back. The frog asks, "How do I know you won't sting me?" The scorpion says, "Because if I do, I will die too." The frog is satisfied, and they set out, but in midstream, the scorpion stings the frog. The frog feels the onset of paralysis and starts to sink, knowing they both will drown, but has just enough time to gasp "Why?" Replies the scorpion: "Its my nature..."

2 YEAR COMPLIANCE RATES WESTERN US



Category	Occurrence	% of Total Specimens	Millennium Average
A <i>Specimens in full agreement with reported medications</i>	11148	37.1%	38.1%
B <i>Specimens with unreported prescription medication(s) detected</i>	9451	31.4%	29.7%
C <i>Specimens with reported prescription medication(s) not detected</i>	4230	14.1%	13.4%
D <i>Specimens with unreported prescription medications(s) detected & reported prescription medication(s) not detected</i>	2921	9.7%	7.7%
E <i>Specimens with Illicit substance(s) detected</i>	641	2.1%	3.1%
F <i>Specimens with illicit substance(s) & unreported medication(s) detected</i>	996	3.3%	5.1%
G <i>Specimens with illicit substance(s) detected & reported medication(s) not detected</i>	261	0.9%	1.4%
H <i>Specimens with illicit substance(s) detected & unreported medication detected & reported medication(s) not detected</i>	430	1.4%	1.5%

“Those who cannot remember the past are condemned to repeat it” George Santayana



Public Health Role Models



Public Health Statement



"Kids are different today", I hear every mother say
Mother needs something today to calm her down
And though she's not really ill, there's a little yellow pill
She goes running for the shelter of a mother's little helper
And it helps her on her way, gets her through her busy day

Doctor, please, some more of these
Outside the door, she took four more
What a drag it is getting old

Depression as a Model to Learn From



Prior to Prozac, treatment was a multimodal approach with diet, exercise, psychotherapy, and use of tricyclic antidepressants, monoamine oxidase inhibitors, antipsychotics and benzodiazepines

CURRENT MATHEMATICAL STATE



**We have a Chronic Disease State with Significant
Fiscal and Societal Impact**

+

Medical Mission to Improve this Chronic Disease State

+

The exact tool for what we need does not yet exist

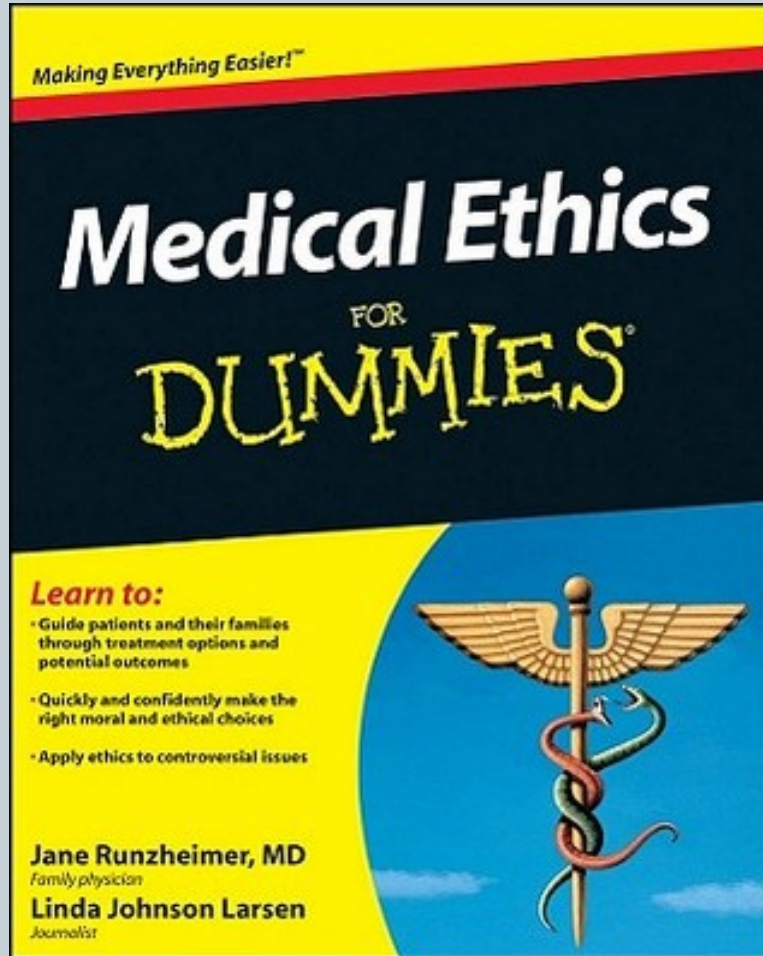
Frustration

MMA's RECOMMENDATIONS



- **Frame current recommendation's by the CDC, AMA, NEJM, AAFP, Agency Medical Directors Group State of Washington, etc. and package these principles into online interactive learning modules and toolkits**
- **Use the Principles of Medical Ethics to Guide Management of Pain**

Applying Ethical Principles



- 1. Beneficence
- 2. Nonmaleficence
- 3. Autonomy
- 4. Justice

Application of Beneficence



Definition- acting in the best interest of the patient and society

Monitoring for beneficence- the 5 (A's)

analgesia activity affect

adverse reactions aberrant behavior

Application of Nonmaleficence



Definition- not causing harm to the patient or Society

Monitoring for nonmaleficence

Obtain the story

PDR's

Liquid Chromotography/Mass Spectrometry

Pill Counts +/-

Application of Autonomy



Definition- informed decision making that describes all risks and benefits and likelihood of success

Monitoring for Autonomy

Pain Agreement/Informed Consent

Application of Justice



Definition- providing fair and equal treatment for all, with due reward and honor. Treating others in a non-prejudicial manner.

Monitoring for Justice
Peer review if possible

Examples of Ethics Applied



Mrs. A



History/Goals

- 56 yo Female
- Idiopathic Neuropathy
- Depression/Anxiety
- Fibromyalgia

- Full time nurse
- Attending school to become an addiction counselor
- Wants to ride her Harley

Medications

- Lorazepam 0.5mg q8h prn
- Percocet 10mg q6 prn
- Amitriptyline 100mg qhs
- Zoloft 100mg BID
- Gabapentin 400mg qid

PDR Results



- **Lorazepam 0.5mg #30** prescribed on **January 9th, April 3rd, May 14th, August 21st, and October 21st, 2014**
- **Percocet 10/325 #30** prescribed on **January 9th, April 3rd, July 16th, August 21st, and October 21st of 2014**

UDS Results



CONSISTENT RESULTS - REPORTED MEDICATION DETECTED (PARENT DRUG AND/OR METABOLITE)

REPORTED MEDICATION	ANTICIPATED POSITIVE(S)	TEST OUTCOME	COMMENTS
PERCOCET	Oxycodone	Negative	The sample tested positive for Noroxycodone, Oxymorphone which is consistent with patient having taken PERCOCET
	Noroxycodone	POSITIVE	
	Oxymorphone	POSITIVE	

INCONSISTENT RESULTS - REPORTED MEDICATION NOT DETECTED (NEITHER PARENT DRUG NOR METABOLITE)

REPORTED MEDICATION	ANTICIPATED POSITIVE(S)	DETECTION WINDOW	COMMENTS
LORAZEPAM	Lorazepam	2 - 5 days after last dose. Higher doses & certain pathologies may extend the detection window.	The sample tested negative for Lorazepam which suggests the patient is not currently taking LORAZEPAM (within the detection window)

INCONSISTENT RESULTS - ANALYTE DETECTED BUT NO CORRESPONDING MEDICATION REPORTED

DETECTED ANALYTE	DETECTION WINDOW	COMMENTS
NONE		

SPECIMEN VALIDITY RESULTS

TEST (MEASUREMENT UNIT)	TEST OUTCOME	MEASURED RESULT	REFERENCE RANGE
CREATININE (mg/dL)	ABNORMAL	18	>20 mg/dL
OXIDANT (ug/mL)	Normal	5	<200 ug/mL
pH	Normal	7.2	4.5 - 9.5
SPECIFIC GRAVITY	Normal	1.003	1.003 - 1.050

MEDICATIONS REPORTED BUT NOT TESTED FOR IN THIS REPORT

AMITRIPTYLINE HCL*, CARAFATE, CYCLOBENZAPRINE*, GABAPENTIN*, ZOLOFT

* Note: Testing for this medication is available through Millennium Health. Please call the RADAR Hotline if you would like the applicable test added.
() Healthcare Provider (HCP)

UDS Results



TEST	TEST METHOD	TEST OUTCOME	MEASURED RESULTS*	CREATININE NORMALIZED RESULTS**	CUTOFF*
NATURAL AND SEMI-SYNTHETIC OPIOIDS					
Codeine	LC-MS/MS	Negative		-	50
Morphine	LC-MS/MS	Negative		-	50
Hydrocodone	LC-MS/MS	Negative		-	50
Norhydrocodone	LC-MS/MS	Negative		-	50
Hydromorphone	LC-MS/MS	Negative		-	50
Oxycodone	LC-MS/MS	Negative		-	50
Noroxycodone	LC-MS/MS	POSITIVE	121	-	50
Oxymorphone	LC-MS/MS	POSITIVE	54	-	50
Buprenorphine	LC-MS/MS	Negative		-	10
Norbuprenorphine	LC-MS/MS	Negative		-	20
SYNTHETIC OPIOIDS					
Fentanyl	LC-MS/MS	Negative		-	2
Norfentanyl	LC-MS/MS	Negative		-	8
Methadone	LC-MS/MS	Negative		-	100
EDDP (Methadone metabolite)	LC-MS/MS	Negative		-	100
Tramadol	LC-MS/MS	Negative		-	100
O-desmethyl-tramadol	LC-MS/MS	Negative		-	100
N-desmethyl-tramadol	LC-MS/MS	Negative		-	100
BENZODIAZEPINES					
Alpha-Hydroxyalprazolam	LC-MS/MS	Negative		-	20
7-Amino-Clonazepam	LC-MS/MS	Negative		-	20
Lorazepam	LC-MS/MS	Negative		-	40
Nordiazepam	LC-MS/MS	Negative		-	40
Temazepam	LC-MS/MS	Negative		-	50
Oxazepam	LC-MS/MS	Negative		-	40
STIMULANTS					
Amphetamine	LC-MS/MS	Negative		-	100
ILLICITS					
Methamphetamine	LC-MS/MS	Negative		-	100
cTHC (Marijuana metabolite)	LC-MS/MS	Negative		-	10
MDMA	LC-MS/MS	Negative		-	100
6-MAM (Heroin metabolite)	LC-MS/MS	Negative		-	10
RECREATIONAL SUBSTANCES					
ETHANOL	Enzymatic	Negative		-	20
Ethyl Glucuronide	LC-MS/MS	Negative		-	500
Ethyl Sulfate	LC-MS/MS	Negative		-	500

* measured in ng/mL (nanogram of analyte per milliliter of urine)

** measured in µg/g (microgram of analyte per gram of creatinine)

Mr. G



History/Goals

- 60 yo male
- DDD of Lumbar Spine
- DJD of L Shoulder
- Hypertension
- Hepatitis C
- Depression

- Goal to walk without a cane
- Be able to work part time
- Live Independently

Medications

- Oxycodone 5mg five x daily
- Tizanadine 4mg qhs
- Lisinopril/HCTZ 20/25 once a day
- Citalopram 20mg daily
- Amitriptyline 100mg qhs
- Aspirin 81mg once a day

PDR Results



- **5mg Oxycodone, #150 every month. No early refills, no other prescribers**

UDS Results



CONSISTENT RESULTS - REPORTED MEDICATION DETECTED (PARENT DRUG AND/OR METABOLITE)

REPORTED MEDICATION	ANTICIPATED POSITIVE(S)	TEST OUTCOME	COMMENTS
NONE REPORTED			

INCONSISTENT RESULTS - REPORTED MEDICATION NOT DETECTED (NEITHER PARENT DRUG NOR METABOLITE)

REPORTED MEDICATION	ANTICIPATED POSITIVE(S)	DETECTION WINDOW	COMMENTS
OXYCODONE HYDROCHLORIDE	Oxycodone	1 - 2 days (immediate release); 2 - 4 days (extended release).	The sample tested negative for Noroxycodone, Oxycodone, Oxymorphone which suggests the patient is not currently taking OXYCODONE HYDROCHLORIDE (within the detection window)
	Noroxycodone	Typically follow oxycodone concentrations.	
	Oxymorphone	2 - 3 days (immediate release); 2 - 5 days (extended release).	

INCONSISTENT RESULTS - ANALYTE DETECTED BUT NO CORRESPONDING MEDICATION REPORTED

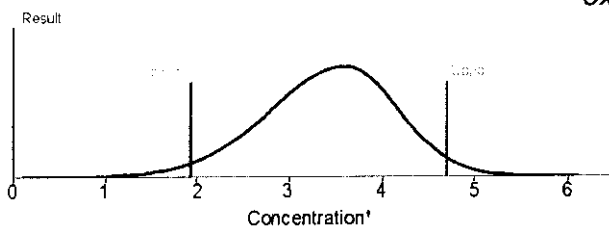
DETECTED ANALYTE	DETECTION WINDOW	COMMENTS
Hydromorphone	1 - 2 days after last dose. Higher doses & certain pathologies may extend the detection window.	Hydromorphone was detected, but could not be matched to any of the reported prescriptions. Sources of hydromorphone include Dilaudid & Exalgo. Hydromorphone is also a known metabolite of hydrocodone and morphine.
Amphetamine	2 - 7 days after last use. Elimination 1/2-life is effected by urinary pH.	Amphetamine was detected, but could not be matched to any of the reported prescriptions. Sources of amphetamine include Adderall, Benzedrine and Dexedrine. Amphetamine is found as a metabolite of Methamphetamine.
cTHC (Marijuana metabolite)	Highly variable. Single use (smoke); 2 - 3 days. Moderate use (smoke); 5 days. Chronic use (smoke); as long as 40 days. Oral ingestion; 1 - 5 days.	The presence of cTHC suggests use of marijuana or prescription THC (Marinol). Marijuana is a DEA Schedule I controlled substance with very limited licit pharmaceutical application.

UDS Results



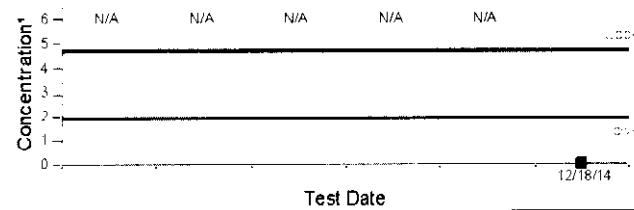
COMPARATIVE RESULTS

The following graph(s) present the patient's current UDT results in relation to the frequency distribution of positive UDT values (2) for all patients with a reported medication for the named medications tested by Millennium (3). The section of each graph between the upper and lower limits represents the 95% inclusion range (4). The information is provided as a clinical tool and is not intended to indicate a patient's adherence to a prescribed medication dosage.



HISTORICAL RESULTS

The following graph(s) present (up to) the last six UDT results (since 12/2010) for this patient (2). The section of each graph between the upper and lower limits represents the 95% inclusion range (4). The information is provided as a clinical tool and is not intended to indicate a patient's adherence to a prescribed medication dosage.



UDS Results



TEST	TEST METHOD	TEST OUTCOME	MEASURED RESULTS*	CREATININE NORMALIZED RESULTS**	CUTOFF*
NATURAL AND SEMI-SYNTHETIC OPIOIDS					
Codeine	LC-MS/MS	Negative		-	50
Morphine	LC-MS/MS	Negative		-	50
Hydrocodone	LC-MS/MS	Negative		-	50
Norhydrocodone	LC-MS/MS	Negative		-	50
Hydromorphone	LC-MS/MS	POSITIVE	55	97	50
Oxycodone	LC-MS/MS	Negative		-	50
Noroxycodone	LC-MS/MS	Negative		-	50
Oxymorphone	LC-MS/MS	Negative		-	50
Buprenorphine	LC-MS/MS	Negative		-	10
Norbuprenorphine	LC-MS/MS	Negative		-	20
SYNTHETIC OPIOIDS					
Fentanyl	LC-MS/MS	Negative		-	2
Norfentanyl	LC-MS/MS	Negative		-	8
Methadone	LC-MS/MS	Negative		-	100
EDDP (Methadone metabolite)	LC-MS/MS	Negative		-	100
Tramadol	LC-MS/MS	Negative		-	100
O-desmethyl-tramadol	LC-MS/MS	Negative		-	100
N-desmethyl-tramadol	LC-MS/MS	Negative		-	100
BENZODIAZEPINES					
Alpha-Hydroxyalprazolam	LC-MS/MS	Negative		-	20
7-Amino-Clonazepam	LC-MS/MS	Negative		-	20
Lorazepam	LC-MS/MS	Negative		-	40
Nordiazepam	LC-MS/MS	Negative		-	40
Temazepam	LC-MS/MS	Negative		-	50
Oxazepam	LC-MS/MS	Negative		-	40
STIMULANTS					
Amphetamine	LC-MS/MS	POSITIVE	248	441	100
ILLICITS					
Methamphetamine	LC-MS/MS	Negative		-	100
cTHC (Marijuana metabolite)	LC-MS/MS	POSITIVE	345	611	10
MDMA	LC-MS/MS	Negative		-	100
6-MAM (Heroin metabolite)	LC-MS/MS	Negative		-	10
RECREATIONAL SUBSTANCES					
ETHANOL	Enzymatic	Negative		-	20
Ethyl Glucuronide	LC-MS/MS	Negative		-	500
Ethyl Sulfate	LC-MS/MS	Negative		-	500

* measured in ng/mL (nanogram of analyte per milliliter of urine)

** measured in µg/g (microgram of analyte per gram of creatinine)

Future Directions



- **Public Awareness Campaigns**
- **Development of Disposal Sites**
- **PDR Enhancements**
- **Expansion of Mental Health Services**
- **Law Enforcement Resources**
- **Health Insurance Prescription Plan Improvements**
- **Peer Review**
- **Pay for Performance**

QUESTIONS

