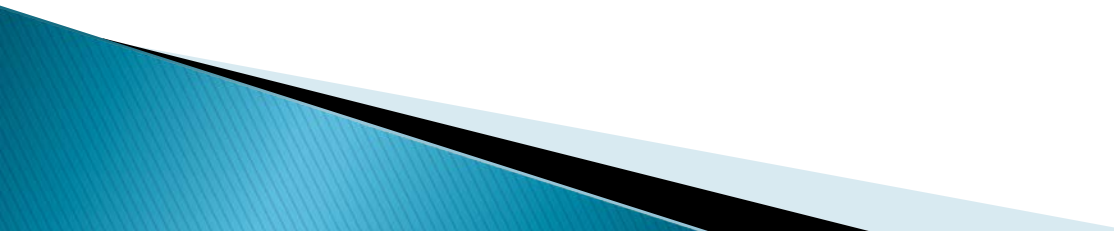


Abuse and Misuse of Prescription Drugs

Matthew Frye, PharmD
Rapid City IHS Pharmacy

Objectives

- ▶ At the end of this presentation, you should be able to
 - Identify the dangerous effects of abusing opioid medications
 - Identify the most common source of opioid medications that are abused
 - Describe the legal ramifications of sharing, using, or possessing a controlled substance without a valid prescription
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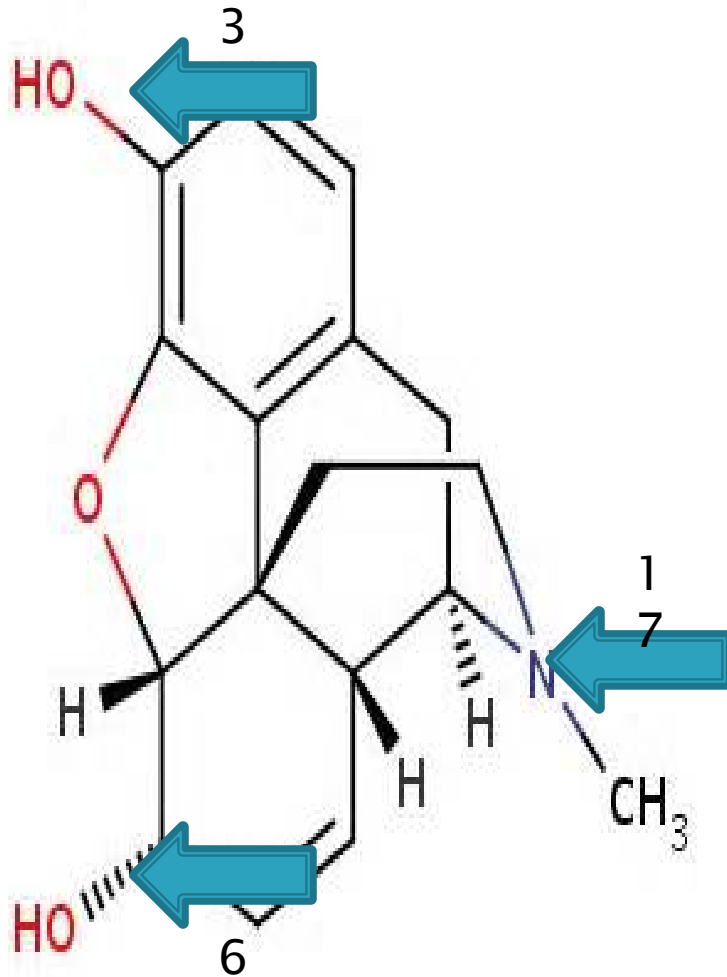
General Concepts

- ▶ Medications cause changes to the body in a number of ways
- ▶ In many cases a medication will have an effect on the body that is outside of its intended purpose
 - Sometimes the effect is undesirable
 - In some cases, the effect becomes desired or sought after by the person taking the medication

Historical context

- ▶ Humans have been using substances to produce mind-altering effects for thousands of years
 - Evidence of opium being used almost 5000 years ago (Pharmacotherapy)
 - Coca Leaves chewed by ancient peoples (produce low levels of cocaine)
 - Psychedelic mushrooms, alcohol, and cannabis also have evidence of use in ancient times

Science of Opioids – Chemistry



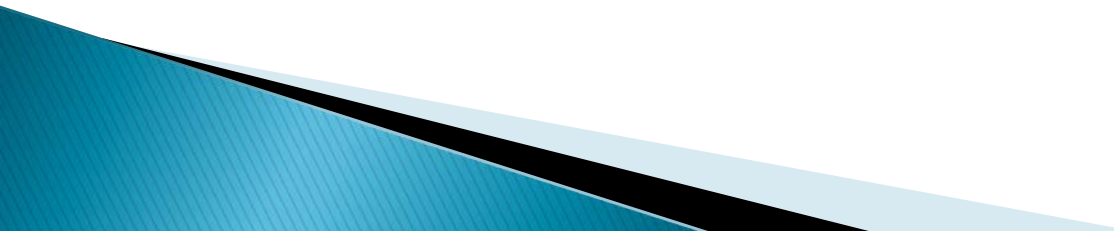
Morphine
Heroin
Hydromorphone
Oxymorphone
Codeine
Hydrocodone
Oxycodone
Naloxone
Naltrexone
Buprenorphine
Butorphanol
Nalbuphine

Science of Opioids – Biology

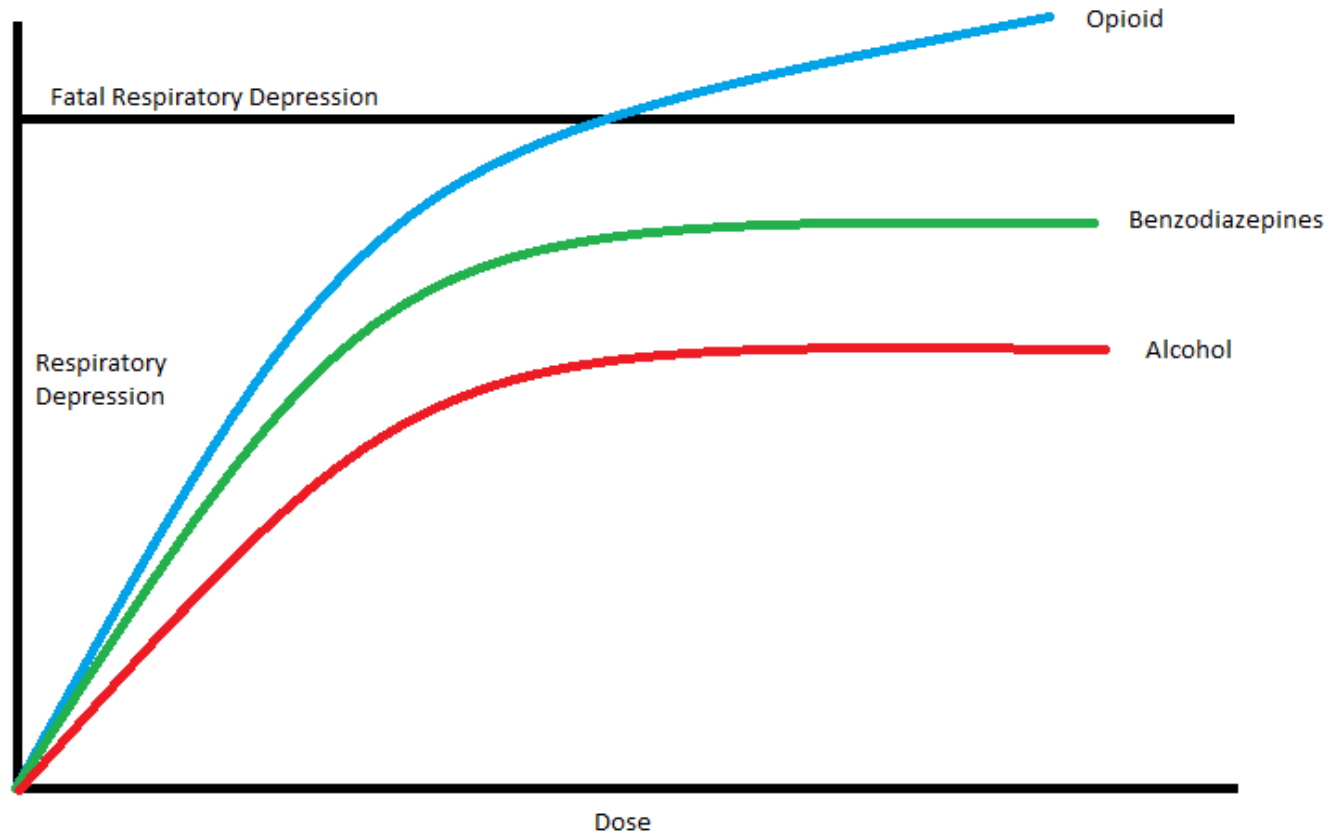
- ▶ Endogenous Opioid system
 - Mu Receptors– Feeding, Sedation
 - Mu1 – Analgesia (Supraspinal), Prolactin, Acetylcholine, Growth Hormone
 - Mu2 – Analgesia (spinal), Respiratory Function, Gastrointestinal, dopamine
 - Kappa Receptors
 - Analgesia (1 and 3), GI, Feeding, Sedation
 - Delta Receptors
 - Analgesia (1 and 2), Feeding, Growth Hormone, Dopamine

Underline–increase

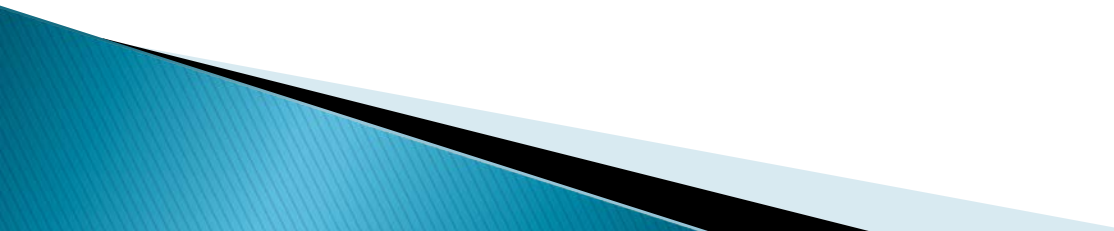
Effects of opioids

- ▶ Current commercially available opioids are fairly selective for the mu receptors
 - ▶ Opioid use can cause euphoria (pleasure) but at this time the cause is not fully understood
 - ▶ Respiratory Depression can occur, and is dependent on dose
 - ▶ GI effects (constipation and urinary retention)
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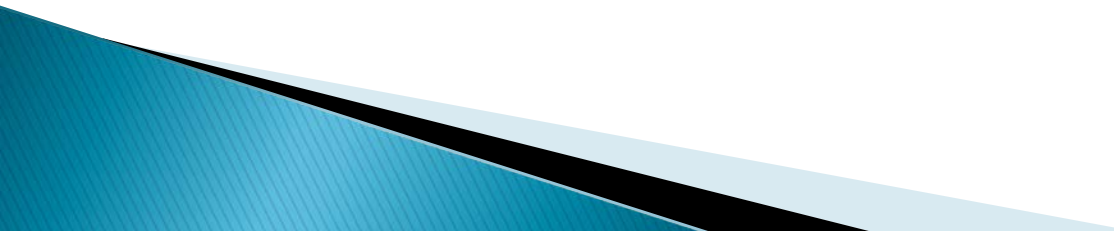
Respiratory Depression Curve



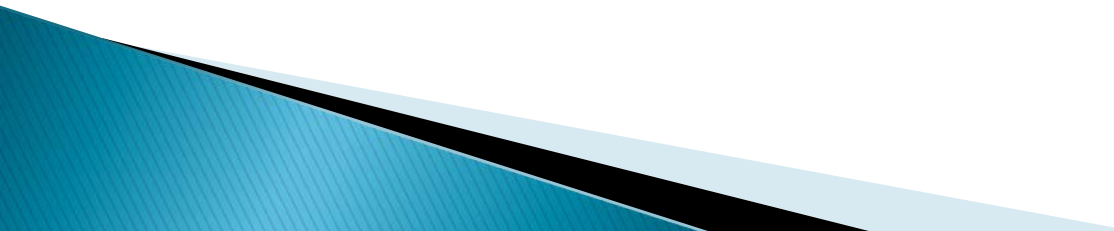
Addiction versus dependence

- ▶ Tolerance and Dependence are not Addiction
 - ▶ Tolerance will develop with long-term use of opioids
 - ▶ Dependence will form with many substances.
 - ▶ Addictive Behaviors
 - Craving
 - Compulsivity
 - Loss of Control
 - Continued use despite harm
 - Long term (chronic)
- 

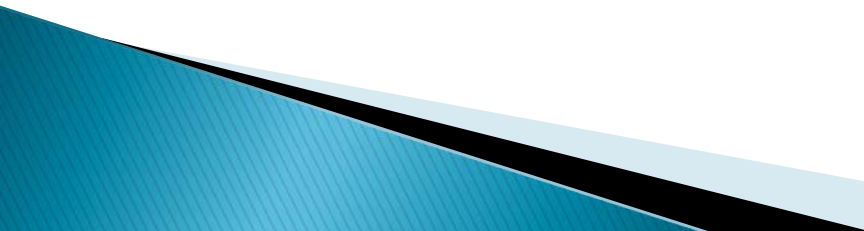
Source of Prescription Drugs that are Misused

- ▶ 55% – Free from friend or relative
 - ▶ 17% – Prescribed from one doctor
 - ▶ 11% – Bought from a friend or relative
 - ▶ 5% – Stolen
 - ▶ 5% – From a Drug Dealer
 - ▶ 7% – Other
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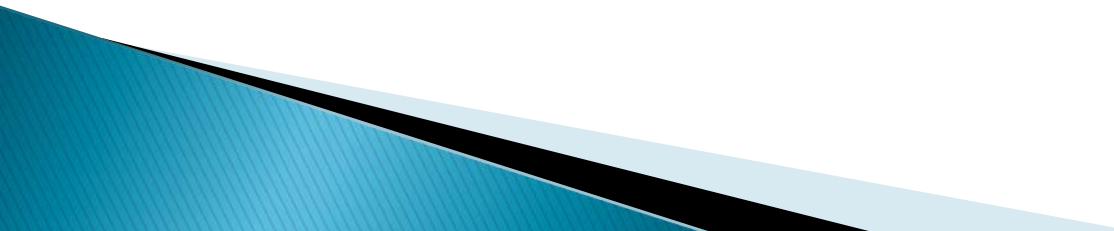
Common Misconceptions About Prescription Drugs

- ▶ Safer than street drugs
 - ▶ OK to share
 - ▶ Less legal problems than street drugs
- 

Statistics (my apologies)

- ▶ 15,000 deaths occur per year from opioid overdose (around 4,000 per year in late 1990s)
 - ▶ Prescription volume for opioids has almost quadrupled since late 1990s
 - ▶ 475,000 Emergency Department visits/year (2009)
 - ▶ 12 million non-medical users (2010)
 - ▶ Opioid abusers spend 8.7 times more healthcare resources than non-abusers
- 

Other common Drugs of Abuse/misuse

- ▶ Benzodiazepines
 - ▶ Amphetamine like medications
 - ▶ Gabapentin
 - ▶ Bupropion
 - ▶ Quetiapine
 - ▶ Albuterol
 - ▶ Dextromethorphan
 - ▶ Pseudoephedrine
- 

Legal Considerations

- ▶ All 50 states have some sort of doctor shopping law in place
- ▶ Four notable laws in South Dakota
 - 22-42-17 – concurrent prescriptions from different providers (doctor shopping) – class 1 misdemeanor
 - 22-42-8 – Obtaining Controlled Substance rx by theft, misrepresentation, forgery, or fraud – class 4 felony
 - 22-42-5 – Possession of Controlled Substance without valid rx – Class 4 felony
 - 22-42-15 – Ingesting substance other than alcohol to become intoxicated – Class 1 misdemeanor

Light at the End of the Tunnel

- ▶ It is believed that in 2014 Prescription Drug Overdose deaths did not increase
- ▶ Many state and federal programs are showing a positive effect on opioid abuse statistics

references

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