Rational Narcotic Prescribing and Drug Diversion

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MIDWEST OPTOMETRIC SOCIETY

MEDICAL OPTOMETRIC SYMPOSIUM 2019

Financial Disclosures

None!

Brief Introduction…

Native Memphian

2001 SCO Graduate

Primary Care Residency 2004

Joined SCO faculty in 2008

Started teaching Systemic Pharmacology I and II in 2011

Master's Degree in Pharmacology and Toxicology in 2013
- Michigan State University

Teaching Drug Diversion Course since 2010

What Will I Learn Today?

Legal Factors of Prescribing

Most Commonly Prescribed Controlled Substances

Drug Schedules and Regulations

Drug Abuse Prevention

Assessment and Treatment of Opioid Dependence

Rational Prescribing and Rx Writing Tips

Why is this important?

Written prescriptions for opioids nearly quadrupled between 1999 and 2015
- In 2015, 6/10 drug overdose deaths were due to opioids
- The death rate for opioid overdose has increased while the death rate for heart disease and cancer have decreased
  - AOA Focus March 2018

Nearly two million people in America have prescription opioid use disorder
- Contributes to increased heroin use
  - Also spread of HIV and Hep C
    - *according to US Surgeon General

Close To Home…

Tennessee Too…

Top 5 Opioid-Abusing Cities

1. Wilmington, NC
2. Anniston, AL
3. Panama City, FL
4. Enid, OK
5. Hickory, NC

"The Opioid Crisis in America's Workforce"
- 2016 Castlight Health report

Bottom Line…

This is a nation wide problem and it is not going away

ALL members of the health care community must be aware and be responsible

Legal Factors of Prescribing

Legal Factors (USA)

U.S. Government recognizes two classes of drugs
- OTC
  - Can be self-administered by the layman for self-limited conditions and for which labels can be written for lay comprehension
  - Represent half of all drug doses consumed by the American public
- Rx Only
  - Require a prescription from a licensed prescriber

Who Are "Licensed Prescribers"?

Prescribing privileges are controlled by the state licensing boards
- Delegated powers by the state legislatures

Professions with prescribing privileges:
- Physician
- Optometric Physician
- Dentist
- Podiatrist
- Veterinarian
- Nurse Practitioner or Midwives
- Physician's assistants
- Pharmacists

"Limited" Scope

Optometrists are often limited (somewhat)!

- Prescriptions MUST be "in the course of professional practice, or in good faith to relieve pain and suffering, or in good faith to diagnose and treat conditions or diseases of the eye or eyelid"
  - Taken from TN statute
  - Most states have similar language…
- Can be broad interpretation
- Recommend no prescription without supporting documentation

Varying Responsibility

Licensed Prescriber

- Granted authority to prescribe "Rx Only" medications

Pharmacist

- Authorized to dispense prescriptions based on a prescriber's order *and the medication order is appropriate and rational for the patient.*
  - Many states are granting more prescribing authority…

Nurses

- Authorized to administer medications to patients subject to a prescriber's order

Government Control

While the individual state legislatures have the right to control who can prescribe/dispense, it is the federal government who controls the labeling and distribution of drugs.

Prescription drugs are controlled by the United States Food and Drug Administration

FDA

Established in 1906

- Pure Food and Drug Act
- Additional legislation through the years has given additional responsibilities

Oversees the drug evaluation process in the USA and grants approval for marketing of new drug products

- Must show through rigorous testing that a drug is "safe and effective" for a ***specific use***

Labeled and Unlabeled Use

The FDA approves a drug only for the specific uses proposed and documented by the manufacturer in its New Drug Application.

- Labeled use = Approved Use
  - Set forth in package insert
- Off-labeled use = use of a medication in the treatment of any unapproved condition in which the drug may be useful
  - NOT restricted by FDA regulations
  - Use caution – courts may consider the package insert as a complete listing of the safe uses of the medication

Controlled Substances

Title II of the Federal Comprehensive Drug Abuse Prevention and Control Act of 1970

- Federal Controlled Substances Act
- Regulates each step of the handling of controlled substances
  - Closed system
  - Enforced by the DEA

Physicians must be authorized to prescribe controlled substances by the jurisdiction in which they are licensed *and* registered with the DEA

- Optometrists in Louisiana are authorized to prescribe schedule II through V

DEA Number

What is it?
- Number assigned by the DEA for the purposes of tracking controlled substances
  - 2 letters followed by 7 digits
- Required to be on the written prescription

How do I get one?
- Apply online at www.deadiversion.usdoj.gov
- Cost is around $731
  - Must be renewed every 3 years

Drug Schedules

Controlled substances are divided into schedules based on abuse potential

Schedule I
- Substances with no accepted medical use in the U.S.
  - Heroin, LSD, Peyote, Mescaline, THC, etc.
  - Many states have legalized the medical or non-medical use of THC
    - Still illegal Federally!

Schedules

Schedule II
- Substances that have a high abuse potential with severe psychic or physical dependence liability
- Contains certain narcotic, stimulant, and depressant drugs
- Handwritten Rx only (or eRx), NO refills
- Example:
  - Oxycodone (percocet, percodan, tylox)
  - Hydrocodone (lortab, vicodin)
    - Reclassified as of October 6, 2014

Schedules

Schedule III
- Substances with abuse potential less than those in Schedule I and II
- Due to widespread abuse, many state legislatures place anabolic steroids on schedule III status (including TN)
- Can be called in, limited refills
- Examples:
  - Codeine (tylenol #3)

Schedules

Schedule IV
- Substances with abuse potential less than those in schedule III
- Examples:
  - Barbital
  - Phenobarbital
  - Diazepam (Valium)
  - Lunesta, Ambien, etc

Schedules

Schedule V
- Consist of certain preparations containing limited amounts of certain narcotic drugs generally for the antitussive and antidiarrheal purposes
- Can be sold OTC by a pharmacist
  - Usually “behind the counter” but a prescription is generally not needed
  - TN rule is that up to 4 oz can be sold without Rx but many (most?) pharmacists will not sell it…

Prescription Orders for Controlled Substances

To be valid, a prescription for a controlled substance must be issued *for a legitimate medical purpose* by an *individual practitioner* acting in the *usual course of his or her professional practice*.

- Documentation is key!

It is illegal for a physician to prescribe a controlled substance for themselves (schedule IV allowed in emergency situations)

- Legal (but questionable) for other prescription meds
- For family members: doctors "should not" prescribe schedule II-IV unless an emergency situation

Execution of the Order

Prescriptions for controlled substances must be dated and signed on the day of their issuance

Full name and address of patient is required along with the printed name, address and DEA number of the practitioner

- Signed the way one would sign a legal document

Preprinted orders not allowed and pre-signed Rx blanks are prohibited by federal law

Oral Orders

Schedule III through V may be called in

Schedule II prescriptions may be telephoned to a pharmacy in emergency situations

- Immediate administration is necessary
- No appropriate alternative treatment is available
- It is not reasonably possible for the physician to provide a written prescription prior to the dispensing

Refills

Schedule II may not be refilled for *any* reason

Schedule III and IV

- Refills may be issued either orally or in writing
- Not to exceed five refills or six months after issue date

Schedule V

- No restrictions on number
- If no refills are noted at time of issuance, a new prescription must be made

Dispensing Controlled Substances

Pharmacy or other dispensing entities must also be registered with the DEA

- Must still have a physician's order

May call to verify information on the written prescription

- Patient's name can NOT be changed
- It is legal to dispense a 3 day supply without phone verification
  - Balance must be dispensed within 72 hours

Internet Dispensing

It IS legal to obtain controlled substances from an internet pharmacy

- They are required to obtain original written form prior to mailing
- MAJOR cause of concern for the DEA
  - Considering ways of controlling diversion

Pharmacology of Controlled Substances

HOW DO THEY WORK?

Common Classes of Controlled Substances

Opioids
- "Pain Pills"

GABA moderators
- Benzodiazepines
- Barbiturates
- Gabapentin

Spasmolytics

Opioids

Examples
- Buprenorphine
- Codeine
- Fentanyl
- Heroin
- Hydrocodone
- Meperidine (Demerol)
- Methadone
- Morphine
- Oxycodone
- Tramadol (Ultram)*

Opioids

Indications
- Short-Term Relief of Pain (from any source)
  - Most common optometric application would be in treatment of severe corneal or orbital injury
    - Corneal abrasion
    - Corneal burn
    - Laceration
    - Use your judgment…
- Other uses…
  - Anesthesia (not true anesthesia)
  - Antidiarrheal
  - Antitussive
  - Treatment of addiction

Opioids

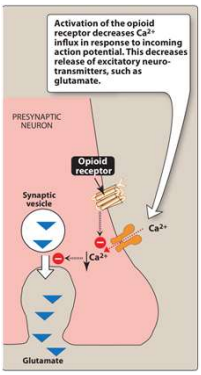
Mechanism of Action
- Bind to opiate receptors in the spinal cord
  - Decrease conduction of pain signal to the brain
- Also bind to opiate receptors in the brain
  - Cause sedation and euphoria

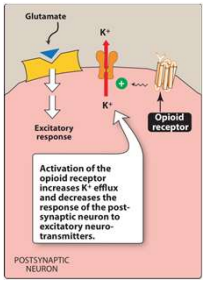
- Tramadol (schedule IV) is also a weak inhibitor of serotonin and norepinephrine reuptake
  - Caution when taking with SSRIs, TCAs, or MAOIs

Opioids

Mechanism of Action
- Buprenorphine
  - Partial agonist
    - Acts like morphine in patients who have not taken opioids
    - Cause withdrawal in users of full opioid agonists

- Naloxone
  - Opioid antagonist
    - Rapidly displaces all receptor-bound opioid molecules
    - Reverse the effect of overdose





Side Effects of Opiates

Physical Dependence
- Very common
- Withdrawal response:
  - Irritability, insomnia, nausea, vomiting, diarrhea, chills alternating with flushing, sweating, muscle cramps, pupil dilation
  - NOT life threatening
  - Addict may delay treatment for addiction in order to avoid
  - Less intense for methadone withdrawal
    - "relaxed withdrawal"

Side Effects of Opiates

Psychological Dependence (addiction)
- Very common
- Compulsive drug use with strong craving for the drug
  - May be so strong will commit crime in order to obtain

Contraindications to Opiate Use

In certain situations, use of opiate receptor agonists should be used with great care
- Shock
- Head injuries
  - Opiates can increase intracranial pressure and add to increased intracranial pressure caused by the injury itself
- Obstetrics
  - Systemically can prolong labor
    - Hard on baby
- Emphysema/asthma
  - Opiate reduces respiratory rate

Common Formulations

Acetaminophen/Codeine
- 300 mg/15 mg
- 300 mg/30 mg (Tylenol #3)
- 300 mg/60 mg (Tylenol #4)

Acetaminophen/Hydrocodone (Lortab)
- 325 mg/5 mg
- 325 mg/7.5 mg

Acetaminophen/Oxycodone (Percocet)
- 325 mg/2.5, 5, 7.5, 10 mg

Alternative Formulations

Aspirin/Oxycodone
- 325 mg/4.8355 mg

Ibuprofen/Hydrocodone (multiple brand names)
- 200 mg/2.5, 5, 7.5, 10 mg

Ibuprofen/Oxycodone (Combunox)
- 400 mg/5mg

*Remember Maximum Daily Doses
- Acetaminophen: 3000 mg
- Ibuprofen: 3200 mg
- Aspirin: 4000 mg

Opiate Prescribing Tips

Tylenol #3 (acetaminophen 300 / codeine 30)

Lortab 5 (acetaminophen 300 / hydrocodone 5)
- Now schedule II

Dosage recommendation
- 1-2 by mouth every 4-6 hours for pain
- Limit number to 2-3 days supply
- NO refills

Benzodiazepines and Barbiturates

Examples
- Benzodiazepines
  - Alprazolam (Xanax)
  - Diazepam (Valium)
  - Eszopiclone (Lunesta)
  - Zolpidem (Ambien)
- Barbiturates
  - Phenobarbital

Benzodiazepines and Barbiturates

Indications
- Sedative
- Reduce Anxiety
- Anti-epileptic
- Sleep induction
- Anesthesia

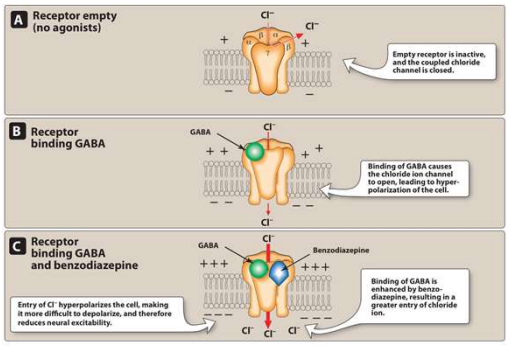
Optometric Use
- Reduction of pre-surgical anxiety (benzodiazepines)
- Treatment of eyelid spasms?
- Sleep induction (keep eye closed)

Benzodiazepines and Barbiturates

Important Note
- Benzodiazepines and barbiturates are NOT analgesics
  - Do not reduce the perception of pain
- Often used as an additive agent in anesthesia and analgesia but NOT effective in pain relief

Benzodiazepines and Barbiturates

Mechanism of Action
- Similar for both
- Bind to different sites on the GABA receptor
  - Increase affinity of GABA neurotransmitter to receptor
  - Enhances inhibitory affect of GABA



Benzodiazepine Side Effects

Tolerance
- Reduced effectiveness is noted with long term use
  - Reduced sensitivity to drug, NOT more rapid elimination
- Chronic use of alcohol and/or barbiturates causes a reduced sensitivity
  - "cross-tolerance"

Benzodiazepine Side Effects

Physical Dependence
- Abrupt discontinuation leads to signs of withdrawal
  - Anxiety, insomnia, irritability, involuntary muscle twitches (opposite of effects of drug)
- Gradual discontinuation (taper) required

Abuse
- Cause mild excitation or arousal at low doses
  - Low intensity – abuse is uncommon

Benzodiazepine Side Effects

Common
- Amnesia
  - Often a desired effect (medical procedures)
- Daytime sedation
  - Continuation of effect
- Disinhibition
- Some reports of "bizarre" behavior and hallucinations
- In the absence of other drugs, benzodiazepine overdose is NOT lethal

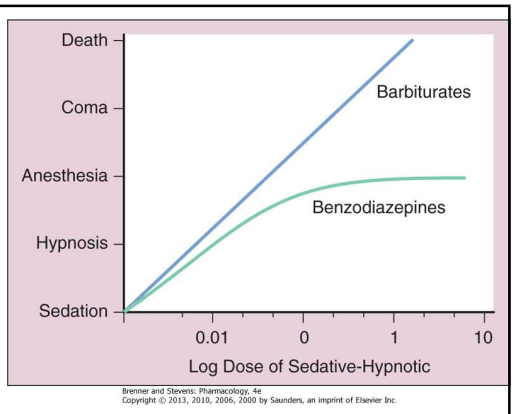
Barbiturate Side Effects

Physical Dependence
- Abrupt discontinuation leads to signs of withdrawal
  - Anxiety, insomnia, and irritability

Abuse
- At low doses cause mild excitation or arousal
  - Recreational abuse is relatively unusual

Barbiturate Side Effects

Common
- Sedation
- Addiction
  - Highly addictive when misused
- Hypotension with IV use
- Can be lethal in overdose even in the absence of any other drugs
  - In part due to drug-induced, decreased sensitivity to plasma carbon dioxide concentration
    - Decreased respiratory activity



Benzodiazepine Prescribing Tips

For anxiety or muscle spasms
- Diazepam 2-10 mg bid-qid
- TAPER dose if long-term use

For induction of sleep
- Zolpidem 5 mg at bedtime
  - Pt must have a full 7 hrs to devote to sleep

I do not recommend using barbiturates in any clinical situation that is likely to come up in optometric practice

Gabapentin

Brand Name: Neurontin

Approved Use
- Treatment of seizures in adults and children over 3 with epilepsy

Also used for
- Treatment of pain
  - Diabetic neuropathy
  - Postherpetic neuralgia
  - Opiate withdrawal
- Tremors
- Migraine

Gabapentin

Originally designed to be a GABA agonist
- Does not appear to work that way…

Thought to bind to a carrier protein at a unique receptor
- Results in elevated GABA levels in the brain

Optometric Uses
- Treatment of pain associated with post-herpetic neuralgia

Gabapentin

Side Effects
- Common
  - Fatigue
  - Dizziness
  - Ataxia
- Less common
  - Nausea
  - Nystagmus and diplopia

Many states are considering moving this to the controlled substances list
- Can increase the effect of opioids

Gabapentin

Prescribing tips:

Dose is 300-600 mg po tid
- Start 300 mg qd x 1 day then bid x 1 day then tid
- Taper if on longer than 7 days

Spasmolytic Drugs

Spasticity = increased basal muscle tone with muscle weakness
- Results in abnormal muscle function
- Associated with
  - Spinal injury
  - Cerebral palsy
  - Multiple sclerosis
  - Stroke
- Can also be caused by
  - Anxiety
  - Inflammation
  - Pain/Trauma

Current medications provide relief from painful muscle spasms but are less effective in improving muscle function

Spasmolytic Drugs

Examples:
- Carisoprodol (Soma)
- Cyclobenzaprine
- Orphenadrine
- Tizanidine

Mechanism of Action
- Largely unknown
  - All are known to be CNS depressants
    - Many different receptors
  - Effect is likely due to sedation

Spasmolytic Drugs

Side Effects
- Drowsiness
- Dizziness
- Dry mouth
- Hypotension
- "altered perception" – can be significant
- Interact with other CNS depressants to potentiate effects

Spasmolytic Drugs

Physical and psychological dependence can occur
- Withdrawal with abrupt discontinuation

These drugs are classified as schedule II controlled substances in Louisiana

No true optometric indication
- Too many safer alternatives exist…

Drug Abuse Prevention

What is Prescription Drug Abuse?

Prescription drug abuse is the *intentional* use of a medication:
- without a prescription;
- in a way other than as prescribed; OR
- for the experience or feeling it causes.

Approximately 7.0 million persons were current users of psychotherapeutic drugs taken non-medically in the US in 2010 (2.7% of US population)
- Pain relievers - 5.1 million
- Tranquilizers - 2.2 million
- Stimulants - 1.1 million
- Sedatives - 0.4 million

http://www.drugabuse.gov/publications/topics-in-brief/prescription-drug-abuse

What Fuels Prescription Drug Abuse?

Patient Factors Driving Abuse

Misperceptions about their safety

Increasing environmental availability

Varied motivations for their abuse

Health Risks

Opioids
- Addiction, overdose, heightened HIV/Hepatitis risk

CNS Depressants
- Addiction and dangerous withdrawal symptoms, overdose

Stimulants
- Addiction and other health consequences

http://www.drugabuse.gov/publications/topics-in-brief/prescription-drug-abuse

Statistics from a National Perspective

Drug overdose is the leading cause of accidental death in the U.S.
- 52,404 lethal drug overdoses in 2015
  - 20,101 related to prescription pain relievers
  - 12,990 related to heroin

259 million prescriptions were written for opioids in 2012
- More than enough to give every American adult their own bottle of pills

4 out of 5 new heroin users started out misusing Rx painkillers

American Society of Addiction Medicine; Opioid Addiction 2016 Facts & Figures

Statistics from a National Perspective…

2016 Statistics:
- 116 people died each day from opioid related overdose
- 2.1 million people had an opioid use disorder
- $504 billion in economic cost

https://www.hhs.gov/opioids/about-the-epidemic/index.html

Sources of Prescription Opioids

Source	1-29 days (low risk)	30-99 days	100-199 days	200-365 days (high risk)
Given by a friend or relative	54.4%	61.9%	48.5%	26.4%
Prescribed by 1 or more physicians	19.7%	17.9%	19.5%	27.3%
Stolen from a friend or relative	4.9%	5.3%	4.6%	2.9%
Bought from a friend or relative	11.3%	7.6%	15.6%	23.2%
Bought from a drug dealer or other stranger	4.2%	2.1%	5.3%	15.2%
Other	5.5%	5.3%	6.4%	5.0%

Jones CM, Paulozzi LJ, Mack KA. Sources of Prescription Opioid Pain Relievers by Frequency of Past-Year Nonmedical Use: United States 2008-2011. *JAMA Internal Medicine*. March 3, 2014.

Behavior of Drug Seekers

Challenge is to distinguish between legitimate pain complaints and drug seekers
- Every socioeconomic status
- Any age
- Any gender

Patients become drug seekers for many reasons
- Developed as progression of disease
- Poorly managed pain
- Tolerance
- Unrecognized addiction
- Untreated depression

ProAssurance Medical Risk Management Advisor, Third Quarter 2006 – Vol 14, Issue 3

Behavior of Drug Seekers

Common Characteristics
- Unusual behavior in the waiting room
  - Complaints of "excruciating pain" to receptionist or tech but do not appear in distress while waiting for doctor
- Extremes in attitude
  - Hostile assertiveness
  - Excessive politeness
- Vague or evasive answers to medical history questions
- Use medical jargon

ProAssurance Medical Risk Management Advisor, Third Quarter 2006 – Vol 14, Issue 3

Behavior of Drug Seekers

Methods to obtain controlled substances
- Repeated visits with pain complaints
  - Walk-ins
- Request late afternoon appointments
  - Especially Fridays
- Refuse trips to ER when calling after-hours
- Request drugs by name
- "Loose" original prescription
- Refuse work-ups
- Alter prescriptions
  - Change refill numbers

ProAssurance Medical Risk Management Advisor, Third Quarter 2006 – Vol 14, Issue 3

Managing Drug Seekers

Document ALL medications taken by or prescribed for a patient
- Including samples

Limit refills on pain medications
- I prefer NO refills

Write prescriptions for limited quantity

Keep prescription pads secure
- Do NOT pre-print DEA number

Don't rely on previous diagnosis

ProAssurance Medical Risk Management Advisor, Third Quarter 2006 – Vol 14, Issue 3

KY Laws Governing Controlled Substances

Optometrists in KY are authorized to prescribe schedule II – V controlled substances

Practitioners are prohibited from prescribing more than a 72 hour dose

Practitioners are required to register for the controlled substances database
- **Kentucky All Schedule Prescription Electronic Reporting (KASPER)**
- Encouraged to check the database any time prescribing a controlled substance
- You may discuss the findings with other practitioners but each is required to obtain their own copy
- You may discuss the findings with your patient but you are ***prohibited*** from providing them a copy of the report

Ohio Laws Governing Controlled Substances

Optometrists in OH are authorized to prescribe schedule II – V controlled substances

Practitioners are prohibited from prescribing more than
- 60 mg codeine
- 7.5 mg hydrocodone

Prescriptions may not exceed a single four-day supply

Practitioners are required to register for the controlled substances database
- **Ohio Automated Rx Reporting System (OARRS)**
- Optometrists are **NOT** required to refer to the database unless the patient exhibits signs of drug abuse or diversion OR the condition requires protracted treatment with the medication
  - You may find the exact set of rules at: **http://codes.ohio.gov/oac/4725-16-04**

Tennessee also has a database…is it effective?

2018 Tennessee CSMD Report

MME dispensed has decreased by 32% and by 39% for the top 50 prescribers

Number of pain clinics reduced by 48%

Potential doctor shoppers reduced by 76%

The number of all opioid prescriptions decreased by 14%

ADAPTED FROM THE CSMD 2018 REPORT TO THE 108TH GENERAL ASSEMBLY, TDH, CSMD ADVISORY COMMITTEE

AOA Guidelines for Optometrists

Prescribe opioids for acute pain only after determining a goal and a treatment plan *with* the patient – prescribe the lowest effective dose of immediate-release opioids

Don't prescribe beyond the expected duration of pain – 3 days is usually enough and is rarely more than one week

Use the drug monitoring program as your state requires

Avoid opioid and benzodiazepine concurrent prescribing

Offer treatment for opioid disorders and addictions

"Opioid Crisis – A U.S. Public Health Emergency: Recommendations for Doctors" – AOA HPI

AOA Guidelines for Optometrists

Three core principles to improving patient care:

1. Non-opioid care is preferred for chronic pain

2. If opioids are used, they should be used in the lowest effective dosage

3. Clinicians should closely monitor patients who have been prescribed opioids

Chronic Pain Guidelines

Purpose is to "define appropriate treatment of chronic pain" and to "avoid addiction and adverse outcomes"

Guidelines available at:
http://health.state.tn.us/Downloads/ChronicPainGuidelines.pdf

"Long term goals of appropriate pain management are to improve symptoms, function, and overall quality of life while minimizing adverse effects, addiction, and overdose deaths"

Assessment and Treatment of Opioid Dependence

Assessment of Opioid Dependence

Identification of risk factors is important

You need to differentiate tolerance vs abuse/addiction

It all begins with the history…

Assessment of Opioid Dependence

History of alcohol and other drug use
- Part of complete medical history

If there is a history of opioid use
- Ask about ADL before and after starting opioids
  - Include family life
- Ask about problems related to opioid use
- Determine pattern of use
  - Are they using as prescribed?
- Is the current dose effective?

Assessment of Opioid Dependence

Listen for signs of psychoactive effects
- Signs of addiction often include feelings that opioids relieve anxiety and/or induce a sense of peace

Ask about withdrawal symptoms
- How long can you go without?
- Were you uncomfortable during this period?
- Have you ever used pain meds to avoid or relieve withdrawal symptoms?

Determine if the patient is experiencing withdrawal…
- Magnification of pain as the medication wears off
- "pain all over"
- Dysphoria

Assessment of Opioid Dependence

Be alert for doctor shopping…

You may want to use an opioid risk tool
- Some available online

- https://www.drugabuse.gov/sites/default/files/files/OpioidRiskTool.pdf

Effective Treatment for Opioid Addiction

Choice of Treatment Approach
- Detox
  - Usually at a treatment center
  - Severe discomfort for days to weeks
    - Full withdrawal symptoms
  - High risk of relapse
- Medication Assisted Treatment (MAT)
  - Monitored use of opioid agonists to wean patient off medication
  - Some controversy…
- Vaccine
  - Currently under development
  - Target opioids in the bloodstream and prevent them from reaching the brain

Effective Treatment for Opioid Addiction

MAT
- Increases social functioning and retention in treatment
  - Patients more likely to remain in therapy
- Reduces symptoms of neonatal abstinence syndrome and length of hospital stay
- Common medications
  - Methadone
    - Does not produce "high"
    - Eases cravings
  - Buprenorphine
    - Shorter acting than methadone
    - Less risk of lethal overdose
  - Naltrexone
    - Does not ease withdrawal symptoms
    - Can't get high if use opioids while taking
    - Start after detox
  - Lofexidine
    - Eases symptoms of withdrawal if rapid detox is needed

Effective Treatment for Opioid Addiction

Less than half of privately-funded treatment programs offer MAT
- Only 28% of treatment plans include receiving medications
- Nearly every state lacks sufficient treatment capacity to provide MAT to all patients with an opioid use disorder

MAT Myths
- Methadone and buprenorphine do NOT substitute one addiction for another
  - Dose does not get patient high
    - Reduces cravings and withdrawal
  - Restore balance to the chemicals in the brain allowing healing
- Diversion of buprenorphine is uncommon
  - When it occurs it is usually used for managing withdrawal
    - Less than 1% of all reported drug diversion

From The National Institute on Drug Abuse; www.drugabuse.gov

Treatment of Opioid Overdose

Overdose symptoms are often tied to respiration
- Any abnormalities in breathing should be taken seriously
- Seek emergency assistance before loss of consciousness

Signs of an overdose
- The "opioid overdose triad"
  - Unconsciousness
  - Pinpoint pupils
  - Hypoventilation
- Other warning signs
  - Vomiting or prolonged nausea
  - Difficulty speaking
  - Paleness in the face
  - Clammy skin
  - Purple or blue fingernails or skin

https://www.therecoveryvillage.com/opiate-addiction/opioid-overdose/#gref

Treatment of Opioid Overdose

Naloxone (Narcan)
- Injection or intranasal administration
- Can be trained on use
- Often available to addicts or their families
- Multiple administrations might be necessary
  - Esp if Fentanyl involved
- Allows stabilization prior to transportation to an emergency center

Rational Prescribing and Proper Prescription Delivery

Rational Prescribing

Should base your prescription writing on a series of steps
- 1. Make a specific diagnosis
  - Can be dangerous to prescribe in order to satisfy a patient's psychological need for therapy
- 2. Consider the implications of the diagnosis
  - Understand the disease process and prescribe accordingly

Rational Prescribing

- 3. Select a specific therapeutic objective
  - Chosen for each pathophysiologic process defined in previous step
  - For example: do you wish to reduce pain, reduce inflammation or halt the disease process
    - Your prescription decisions may differ
- 4. Select a drug of choice
  - Suggested by the therapeutic objective
  - Must consider patient factors such as allergy, age, other diseases, etc

Rational Prescribing

- 5. Determine the appropriate dosing regimen
  - Largely determined by the pharmacokinetics of the drug
- 6. Devise a plan for monitoring and determine the therapeutic end-point
  - Follow-up is important to determine effectiveness and to determine the appropriate stopping point
- 7. Plan a program of patient education
  - May be most important step
  - Improves compliance

Written Prescriptions

Traditional Method
- Most often on pre-printed forms

Must be Tamper-Resistant
- Pantograph or Watermark designed to prevent copying
- Uniform, non-white background color OR quantity check-off boxes
- Security features listed on the form
  - Can be on the back

Written Prescriptions

Other requirements
- Full name and address
  - Both the patient AND the prescriber
- Prescriber phone number
- Date
- DEA number (if controlled substance)
- Refill instructions
  - Even if zero
- Signature
  - In ink
  - Include last name and professional degree

Written Prescriptions

Other tips
- Be specific, i.e. “one tablet by mouth”
- Include any formula used to calculate dose
  - So pharmacist can check your math!
- Avoid “use as directed”
- Abbreviations are accepted but it is recommended to write out the directions in English

Verbal Prescriptions

Most prescriptions can be called in
- Must give same information as on written form
- Can be called in by office staff
- Limitations on controlled substances

Do not forget to document any prescription that is called in from alternate locations

Alternative Delivery Systems

Fax
- It IS legal to fax a prescription
  - Must be legible
  - Contains same information as written Rx
  - Limitations on controlled substances
- Tamper-proof paper will come through as “void”
  - Pharmacist must verify

Alternative Delivery Systems

Electronic submissions
- E-prescribing
- Supported by many EMR systems
- Prescription goes straight to pharmacy from your medical record
- Medicare has incentive program for those practicing E-Prescribing
  - May soon be required for full payment

E-prescribing Rules

Must be transmitted from your office to the pharmacist
- Do not email!

Transmissions must include:
- Prescribers telephone
- Time and date of transmission
- Pharmacy name
- Electronic signature
- Name of prescribers agent (if any)

Prescribing Errors

7000 Americans die each year due to preventable medication errors
- Cost of approximately $21 billion in wasteful healthcare spending

- "Preventing Medication Errors: A $21 Billion Opportunity" National Priorities Partnership December 2010

Prescribing Errors

Numeral and Measurement System
- Multiple systems have historically been employed (avoirdupois, apothecaries' and metric) and been combined with Roman and Arabic numerals
- All orders should be written using metric measurements
- Arabic (decimal) numerals are preferable to Roman numerals
  - Use leading zeros (0.125mg)
  - Avoid trailing zeros (5 mL instead of 5.0 mL)

Prescribing Errors

Abbreviations
- Many commonly used medical abbreviations are derived from Latin phrases
  - No longer the international language of medicine
- There is NO standardized or "official" list of medical abbreviations recognized by health-care associations
  - Practitioners often create their own
- Some organizations are recommending that abbreviations not be used at all
  - Or at least create a standard list

Prescribing Errors

Omission of Information
- One or more components of the prescription missing
  - No strength/concentration
  - No dosing information
  - No signature
- Pharmacist can call to verify but that takes time away from **two** patients

Omission in the Record

Errors of omission are more common in hospital orders and patient records (we see it all the time!)
- Instructions like "resume pre-op meds", "continue eye drops" or "use medications as instructed"
- Assumes that accurate record of meds or instructions is available
- Can lead to medication errors if the patient calls for further instructions and the person taking the call can not tell what the medication instructions are

Prescribing Errors

Handwriting
- Poor penmanship will compound the likelihood that there will be harmful errors
- Wastes time and resources
- Cited as the second most frequent type of malpractice claim
- Print orders carefully or use pre-printed forms

Clarity!

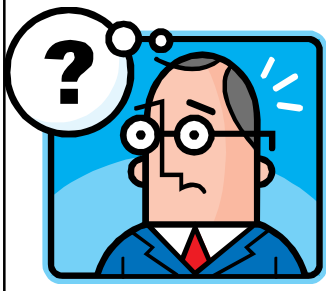
Ambiguity of Intent
- Must be clear
- Example:
  Azithromycin 1500mg over 3 days
  Azithromycin 1500mg days 1-3
  Azithromycin 500mg once a day for 3 days
- Avoid omitting information for the sake of expediency

Take Home Point!

Rational and responsible use of opioid medications can be a benefit to our patients

We all need to do our part to recognize addiction and abuse
- Offer treatment options to our patients that need it

Any Questions?



Thank You!