Prescribing Controlled Substances

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Topics Covered

• Controlled Substances and the Schedules
• Prescribing Opiates
• Prescribing Sedatives
• Prescribing Stimulants
• Prescribing GI Drugs—Antidiarrheals and Drugs for Weight Loss
• Prescribing Anabolic Hormones
• Controlled Substances and the NP
• Summary
Topics Covered

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Controlled Substances

- Any drug whose use is controlled by the Federal Government.
- Drugs are put into Schedules I-V depending on abuse potential
Controlled Substances Act of 1970

- All Schedule II prescriptions must be written in ink
- Dated the same day as signed
- DEA number
- Drugs in Schedules III-V may not be filled after 6 months after issuance of prescription

Schedule I Drugs

- Highest abuse potential
  - Examples: Heroin, LSD, Mescaline
- No accepted medical use OR has not been thoroughly tested yet to determine safety
  - May be used in drug testing in registered participants
Schedule II Drugs

- High abuse potential
- Has current acceptable medical use in the U.S.
- Abuse may lead to physical or psychological dependence (or both)
- Examples: Morphine, Oxycodone, Fentanyl, Meperidine, Dextroamphetamine, Methylphenidate, Cocaine, Amobarbital

Schedule III Drugs

- Abuse potential less than Schedule I or II, but many of these drugs are still highly abused or over-used.
- Physical dependence may result, and psychological dependence is often a problem with these drugs
- Examples: Anabolic Steroids, Ketamine, Hydrocodone, Nalorphine
Schedule IV Drugs

- Abuse potential less than seen in Schedule III
- May lead to limited physical and/or psychological addiction
- Examples: Alprazolam, Phenobarbital, Meprobamate, Modafinil, Pentazocine, Propoxyphene

Schedule V Drugs

- Low potential for abuse compared to Schedule IV drugs
- Sometimes, Schedule V drugs may be sold in limited amounts without a prescription at the discretion of the pharmacist.
- Examples: Buprenorphine, some combination products (codeine + guaifenesin cough syrups in some doses, for example)
CSA and DEA

- The DEA regulates every step of controlled substances—from manufacture to dispensing.
- The goal is to prevent diversion from legitimate use.
- States may require more stringent regulations than the CSA mandates.

Orders for Controlled Substances

- Must be issued for legitimate medical purposes
- By a practitioner in the usual course of his/her professional practice
- Not for self-use
  - Even if this is not mandated by law
Rules for Prescribing CS

• Prescriptions should be dated and signed on the day of their issuance.
  – Name and address of patient
  – Name, address, and DEA # of NP
  – No preprinted orders
  – No verbal orders for Schedule II drugs

Rules for Prescribing CS

• Verbal Orders
  – May be phoned in by NP for Schedule III-V drugs
  – Keep DEA # as safe as reasonably possible
• What about Schedule II drugs?
  – In an emergency, verbal orders MAY be accepted
    • Immediate administration is necessary
    • There is no alternative
    • It is not possible to provide a written Rx
Rules for Prescribing CS

• Refills
  – NO refills on Schedule II drugs.
  – For Schedule III and IV drugs, refills may be issued verbally or in writing, not to exceed 5 refills or 6 months after the issuance date (whichever comes first).
  – For Schedule V drugs, there are no restrictions on refills.

Methods to Decrease Diversion

• Guard your prescription pad!
• Do not put full DEA number on pad
  – “pharmacist call to verify”
  – “call for registration number”
• Spell out the number of units or refills instead of using numerals
• Limit the number and length of Rx’s for any given patient
New Rules for Schedule II Prescribing

- DEA now allows you to write several C-II Rx’s on the same day, for the same patient, for the same drug…for up to a 90 day supply.
- You must indicate the earliest date the patient can fill each Rx and sign and date TODAY’S date.
- Feds do not limit how much of a C-II drug a patient may have, but your state might—always check!
- If patient is in a LTCF or is terminally ill, an Rx may be partially filled. Note this on the Rx.

REMS—What is it?

- Risk Evaluation and Mitigat ion Strategies are a way to decrease adverse outcomes with these drugs. They include:
- Medication guides with pertinent patient information
- Black box warnings to alert the prescriber to potentially harmful side effects
- Additional prescriber education, if needed
  - For instance, “Dear Prescriber” letters, drug-company-sponsored education, pharmacy registration
Risk Evaluation and Mitigation Strategies

- REMS is being proffered as a way to decrease the risks associated with long-term opiate use/abuse—long-acting drugs were included first
  - Morphine, morphine SR, hydromorphone ER, methadone, oxycodone CR, oxymorphone ER, transdermal fentanyl and transdermal buprenorphine, morphine/naltrexone ER
- Drug companies paid to educate prescribers

Will REMS Work?

- FDA is asking that the training be mandatory for anyone with a DEA#
- Advantages? OBVIOUS!
  - Helpful to the patient, prescriber
- Disadvantages? OBVIOUS!
  - Though most prescribers are on board with the idea….there is some hesitancy in investing time for training
- The fear is that other drugs will be “switched to”
IR Products Recently Added to REMS

- **Fentanyl Products**
  - Approved products with the brand names Abstral, Actiq, Fentora, Lazanda, Onsolis
  - Indicated to treat cancer breakthrough pain in opioid-tolerant patients
  - Added to REMS because of high home use and high potential for abuse or accidental misuse

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Why Opiates Are Controlled

- Abuse potential
- Danger of use
- Side effects/Toxicities
- Diversion
- Physical and psychological addiction

Opiates and Scheduling

- Alfentanil (Alfenta): II
- Fentanyl (Duragesic, Actiq, Sublimaze): II
- Hydromorphone (Dilaudid): II
- Levorphanol (Levo-Dromoran): II
- Meperidine (Demerol): II
- Methadone (Dolophine, Methadose): II
- Morphine: II
- Oxymorphone (Numorphan): II
Opiates and Scheduling

- Remifentanil (Ultiva): II
- Sufentanil (Sufenta): II
- Codeine: II
- Oxycodone (Oxycontin, Roxicodone, Combunox, Percodan, etc.): II
- Hydrocodone (Lortab, Vicodin, etc.): III
- Propoxyphene (Darvon, Darvocet): IV

Opiates and Scheduling

- Pentazocine (Talwin): IV
- Butorphanol (Stadol): IV
- Buprenorphine (Buprenex): V
- Nalbuphine (Nubain): Not regulated
**Assessment of Pain**

- Evaluate prior to opioid administration and about 1 h after.
- Assess pain location, type of pain (dull, sharp, stabbing, throbbing, etc.), what makes pain better, worse, how pain changes with time.
- Some patients over-report (drug seekers).
- Some patients under-report (fear of addiction, fear of treatment, feel a need to be stoic, etc.).

**Where Opiates Act**

- Opiates can change the brain stem, an area that controls automatic body functions, and depress breathing.
- Opiates can change the limbic system, which controls emotions to increase feelings of pleasure.
- Opiates can block pain messages transmitted by the spinal cord from the body.
Types of Pain

- Acute Pain: Recent onset, transient, from an identifiable cause
- Chronic Pain: Persistent or recurrent; lasting beyond the usual course of illness or injury or more than 3-6 months, and which adversely affects the individual's well-being
- Breakthrough or Flare-up Pain: Transient pain, which is severe or excruciating; unpredictable. May indicate changes in underlying disease.

Classification of Pain Pathophysiology

- Nociceptive pain is due to tissue injury.
- Neuropathic pain results from damage to brain, spinal cord or peripheral nerves.
- Eudynia describes nociceptive pain
- Maldynia describes neuropathic pain
Classification of Drugs That Act on Opiate Receptors

- Pure Agonists: Activate mu and kappa receptors. Produce analgesia, sedation, euphoria, respiratory depression, physical dependence, constipation, and cough suppression.
- Partial Agonists: Produce analgesia in the narcotic naïve patient; withdrawal in the narcotic user.
- Antagonists: Block the mu and kappa receptors to cause a reversal of sedation and respiratory depression caused by narcotic overdose.

Actions of the Opioids

- Analgesia
- Euphoria
- Sedation
- Cough suppression
- Biliary colic
- Emesis
- Elevation of ICP
- Miosis
- Neurotoxicity
- Hormonal changes with prolonged use
Actions of the Opioids

- Opioids relieve pain by binding to the mu receptor. Endogenous opiates (enkephalins, endorphins, dynorphins) stimulate this receptor as well and modulate the pain response.
- Opioids are better at relieving dull, chronic pain than sharp, acute pain. Sharper pain needs higher doses.

Actions of the Opioids

- Opioids decreased the release of inflammatory mediators from C fibers presynaptically.
- They reduce activity of interneurons, dendrites, and output neurons in the pain pathway.
- They inhibit neuronal activity via GABAergic pathways in the substantia gelatinosa. All of these reduce ascending pain transmission.
Opioid Tolerance

- With prolonged opioid exposure, cellular adaptations occur that make the drug less effective than it previously was. Tolerance develops to sedation, analgesia, and euphoria.
- Some tolerance is also seen to respiratory depression.
- No tolerance to miosis or constipation.
- Cross-tolerance is seen to all opioid agonists.
Physical Dependence and the Opioids

• Defined as the presence of an abstinence syndrome if the drug is discontinued.
• Body now requires the presence of the drug in order to function normally.
• Usually takes about 3 weeks of regular use, but may be seen earlier

Physical Dependence and the Opioids

• Begins about 10 hours after last dose with symptoms of yawning, rhinorrhea, sweating. Then anorexia, irritability, tremor, gooseflesh. Peaks with violent sneezing, weakness, NVD, muscle spasms (legs). May last for 7-10 days, and is rarely life-threatening.
• Withdrawal can be lessened by tapering doses; is rarely seen in patients receiving acute treatment.
Precautions--General

• Decreased respiratory reserve—use with caution in COPD, or in patient taking other meds that decrease respiratory rate
• Pregnancy
• Labor and delivery—watch respiration
• Head injury—watch respiration with increased ICP
• Infants and elderly
• Hypotensive patient or patient with reduced blood volume

Drug Interactions with the Opioids

• CNS Depressants
  – Barbiturates, benzodiazepines, alcohol
  – Intensify sedation and respiratory depression caused by narcotics
• Anticholinergics
  – Antihistamines, TCAs, OTCs
  – Worsen constipation, sedation and urinary retention caused by opioids
### Drug Interactions with the Opioids

- **Hypotensive drugs**
  - Any blood-pressure-lowering medication will have an additive effect with the narcotics
- **MAOIs**
  - Watch with Meperidine. Causes fever, excitation, delirium, seizures and severe respiratory depression. Avoid MAOI + narcotic use.

### Drug Interactions with the Opioids

- **Partial Agonist Opioids**
  - Pentazocine, buprenorphine, butorphanol, and nalbuphine
  - Will precipitate withdrawal syndrome in patient taking pure opioid agonists
- **Opioid Antagonists**
  - Naloxone, methylnaltrexone, alvimopan, naltrexone, and nalmefene
  - Used for opioid overdose or to reverse constipation caused by opiates
Opioid Toxicity

- Overdose presents with a triad of symptoms
  - Coma—may be profound
  - Respiratory depression—may be as low as 2-4 breaths/min
  - Pinpoint pupils—may dilate as hypoxia sets in
- Treatment is ventilatory support and naloxone or nalmefene

Morphine

- 11 formulations available
  - Controlled release (MS Contin, Oramorph), extended release (Avinza), sustained release (Kadian), standard PO solution (MSIR), concentrated PO solution (Roxanol)
  - Rectal suppositories (RMS)
  - Standard solution for injection (Astramorph, Duramorph, Infumorph)
  - Soluble tablets for injection
  - Extended liposomal tablets for injection (DepoDura)
Morphine

- 11 formulations available
  - First-pass effect after PO administration is extensive, hence PO doses are large. Doses are individualized. Avinza given every 24 h.
  - IM and SubQ routes unreliable and should be avoided.
  - IV injection should be done slowly to minimize hypotension.
  - Epidural route preferred to intrathecal.

Fentanyl

- Preparations include Sublimaze, Duragesic, Actiq
- Potency is 100 x that of morphine!
- Parenteral (Sublimaze)
  - Used for induction and maintenance of anesthesia
- Transdermal (Duragesic)
  - Patch applied to upper torso, reaching effective levels within 24 h.
Fentanyl

• Using the Duragesic Patch
  – Indicated for severe, persistent pain in the opioid tolerant patient
  – Not for use in children <2 years old, or in adults weighing less than 110 pounds
  – Patch sizes include 12, 25, 50, 75, 100 mcg/hr delivery systems—use smallest effective patch and monitor respirations!!
  – Do not apply heat to patch.
  – Treat breakthrough pain with short-acting narc.

Fentanyl

• Using Actiq—transmucosal fentanyl
  – Available as 200, 400, 600, 800, 1200, and 1600 mcg strengths.
  – Approved ONLY for breakthrough cancer pain in OPIOID TOLERANT (needing more than 60 mg morphine/day) patients.
  – Patients should suck on lozenge—some will be absorbed thru mucosa, some across GI tract.
  – Start with 200 mcg unit; if pain persists, patient may have another 15 min after the first.
Fentanyl

• Using Fentora—buccal fentanyl
  – Same indications as above but the two are not interchangeable
  – Absorption is more complete
  – Follow dosing directions when switching patient from one formulation to the other
  – Place between cheek and gum near rear molar
  – Initial dosage should be 100 mcg

Other Formulations

• Abstral—Fentanyl sublingual tablet is available only through enrollment in ABSTRAL REMS program
• Onsolis—buccal film is available only through enrollment in the FOCUS program
Fentanyl (Ionosys)

- Needle-free patient activated system for delivering pain medication
- Applied to the skin, delivers the drug across the skin
- Approved for postsurgical pain in hospitalized patients
- Watch for nausea, respiratory depression
- Remove prior to discharge!

IV Congeners of Fentanyl

- Alfentanil
- Sufentanil
- Remifentanil
- All used IV as adjuncts to anesthesia
- Remifentanil is used for analgesia during surgery and immediately after
Meperidine

- Meperidine (Demerol) is available for PO, IV, IM, or subQ use.
- Use is declining due to frequent dosing (q 4 h), many drug-drug interactions, and the potential for accumulation of normeperidine, a toxic drug metabolite. Treatment should not exceed 48 h.

Methadone

- Methadone (Dolophine, Methadose) is available for PO, IM, and subQ use.
- Analgesic dose is 2.5-20 mg repeated q 3-4 h PRN.
- Dose for detox in opioid addicts is 40 mg tablet.
  - Build addict up to 120 mg methadone/day, causing tolerance to ALL narcotics
Hydromorphone, Levorphanol, Oxymorphone

- Hydromorphone (Dilaudid)
- Levorphanol (Levo-Dromoran)
- Oxymorphone (Numorphan)
- All Schedule II for moderate to severe pain.
- Watch for respiratory depression, miosis, constipation

Codeine

- For mild to moderate pain. 30 mg produces about as much pain relief as 325 mg acetaminophen. Cough suppression dose is 10 mg.
- Alone, codeine is Schedule II; in combination, often a Schedule III. In cough medicines, often a Schedule V.
Oxycodone

- Available alone in immediate release and controlled release tablets; as PO solution; in combination with aspirin (Percodan), acetaminophen (Percocet) and ibuprofen (Combunox). All formulations are Schedule II.
- OxyContin is to be dosed q 12 h and is NOT PRN.
- Abusers crush OxyContin and snort powder or dissolve it for injection.
  - Newer formulations form gelatinous substance, making this difficult

Hydrocodone

- Available as Lortab, Vicodin, Vicoprofen and in many other formulations including cough syrups (Tussionex)
- All are currently Schedule III drugs
- DEA is pushing to make these drugs Schedule II due to widespread abuse and ease of availability
Propoxyphene

- Propoxyphene (Darvon) relieves pain with an effect equal to aspirin
  - This effect is enhanced when combined with acetaminophen. This formulation is Darvocet
- Propoxyphene in large doses may cause toxic psychosis
- A C-IV agent

Pentazocine

- Partial agonist, so indicated for mild to moderate pain. Agonist at kappa receptors, but antagonist at mu receptors.
- Get sedation, analgesia, limited respiratory depression, but no euphoria.
  - Schedule IV
- Will precipitate withdrawal in an addicted patient
- Available as PO preps (Talwin, Talwin Compound, Talacen) and Talwin for IM, IV, or subQ injection.
Butorphanol, Nalbuphine

- Butorphanol (Stadol) may be given IM and IV, or by nasal spray. Schedule IV. Increases cardiac work, so avoid in MI patient.
- Nalbuphine (Nubain) is given by IV, IM, or subQ injection. Low abuse potential so it is not a CS.

Buprenorphine

- Buprenorphine (Buprenex, Subutex, Suboxone) is a partial agonist at mu receptors and an antagonist at kappa receptors.
  - May cause dependence; Schedule III.
  - Buprenex by injection IM or IV
  - Subutex or Suboxone SL for management of opioid addiction
Dosage Determination and Schedule

- No such thing as “standard” dosing for pain meds
  - If a standard 10 mg dose of morphine were given to adults in pain, only 70% would get some relief; 30% would be under-treated.
- Consider age, condition, patients pain tolerance as factors to determine dose
- As a rule, a fixed dosing schedule should be used. PCA gives good results.

Patient-Controlled Analgesia

- PCA allows patient to deliver opioids IV, subQ or epidural on a PRN basis.
- Good for post-op patients, those with pain from cancer, sickle cell crisis, trauma, MI, and labor.
- Most common drug is morphine, although methadone, fentanyl, hydromorphone, nalbuphine, buprenorphine have been used.
- Advantage over IM injection is a more constant blood level of opioid.
- Accelerated recovery and shorter overall hospital stays have been recorded.
Physical Dependence, Abuse and Addiction

• Due to fear of addiction, about 25% of patients receive opioids in doses sufficient to relieve suffering.
  – Physical dependence: Abstinence syndrome will occur if drug is abruptly withdrawn
  – Abuse: Drug use inconsistent with medical or social norms
  – Addiction: Continued use of a drug despite physical, psychologic, or social harm

Opioid Antagonists--Considerations

• Main uses are treatment of opioid overdose, reversal of post-op opioid effects, and management of opioid addiction.
• Preps available include Naloxone (Narcan), Nalmefene (Revex), and Naltrexone (ReVia, Depade)
• Reverse analgesia, sedation, euphoria, respiratory depression
Can I Buy These Over the Internet?

- Sites may say they have drug laws comparable to US laws but may not be located in that country
- May be located in that country but dispense prescriptions from another country that has no comparable law
- May not handle or store drugs in a manner that maintains potency or shelf life
- May purchase drugs from dubious sources

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Why Sedatives Are Controlled

- Abuse potential
- Side effects/Toxicities
- Physical addiction liability

Sedatives and Scheduling

- Pentobarbital, Secobarbital (II); Phenobarbital (IV)
- Butalbital combinations (III)
- Alprazolam, Butorphanol, Chlormethiazole, Clonazepam, Clorazepate, Diazepam, Flurazepam, Lorazepam, Meprobamate, Midazolam, Modafinil, Oxazepam, Temazepam, Triazolam, Zaleplon, Zolpidem (IV)
- Pregabalin (V)
Benzodiazepines

- Indications: Depending on the agent, these drugs may be used for sleep disorders, muscle spasms, seizure disorders, skeletal muscle relaxants, as adjuncts to anesthesia, for panic disorder, or for sedation.
- They are first-choice drugs for anxiety
  – Long-term use is associated with a withdrawal syndrome
  – Alprazolam and Lorazepam are most often prescribed for anxiety; Chlordiazepoxide, Clorazepate, Diazepam, Oxazepam also approved

Benzodiazepine Use

- Withdrawal syndrome may be mistaken for anxiety symptoms
  – Withdraw patient slowly over several months
- If used for insomnia, encourage intermittent use
  – Rebound insomnia upon discontinuance
- Overdose or toxicity presents with excessive drowsiness or lethargy; dangerous when combined with other CNS depressants
  – Flumazenil (Romazicon) is the antidote
Benzodiazepine-Like CS for Sleep

- Zolpidem (Ambien, Ambien CR, Zolpimist)
  - Promote falling asleep. CR formulation also maintains sleep. Mist formulation useful in patients with swallowing difficulty.
- Zaleplon (Sonata)
  - Short duration of action makes it more useful to promote falling asleep (4 h).
- Eszopiclone (Lunesta)
  - Approved for longer-term use
- All three may cause sleep-driving, eating, etc.

Barbiturates

- Indications: Seizure disorders, adjuncts to anesthesia, daytime sedation, induction of sleep.
- Ability to cause tolerance, dependence, respiratory depression, and general CNS depression is high, so widespread use as drugs for sleep and anxiety is very limited.
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Why Stimulants Are Controlled

• High abuse potential!
• Many “gains” in stimulant use and abuse
  – Feeling of euphoria, weight loss, feeling of increased energy
• Diversion risk is very high
• New routes for abuse
Stimulants and Scheduling

- Methylphenidate, Dexmethylphenidate, Dextroamphetamine, Dextroamphetamine and Amphetamine, Lisdexamfetamine, Methamphetamine (II)
- Modafinil, Armodafinil (IV)

What are Prescription Stimulants?

- A class of drugs that enhance brain activity including attention span and goal-oriented activity.
- Prescription stimulants were used historically to treat asthma, obesity, neurological disorders, and a variety of other ailments, before their potential for abuse and addiction became apparent.
What are the Effects of Stimulants?

- Stimulants increase the amount of norepinephrine and dopamine in the brain, which increases blood pressure and heart rate, constricts blood vessels, increases blood glucose, and increases breathing. Effects can feel like increased alertness, attention, and energy along with a sense of euphoria.

Usually Prescribed For…

- Narcolepsy
- Attention-deficit hyperactivity disorder (ADHD) – hyperactivity, impulsivity, inability to concentrate
- Depression that does not respond to other treatment
Effects in the Body

- Stimulants enhance brain activity, causing an increase in alertness, attention, and energy.
- As a result, they are prescribed for use first thing in the morning. In abuse, they may be used to offset sleepiness late in the day.

In Normal Use….

- The normal user of stimulants should take them once a day
- Drug holidays are encouraged
  - Weekends
  - School holidays
  - Spring break, Christmas, Summer vacation
- Regular assessment should be done to determine if continued use is necessary
Effects of Short-Term Use

• Elevated blood pressure
• Increased heart rate
• Increased respiration
• Suppressed appetite
• Sleep deprivation
• Dilated pupil
• A “wearing off” effect as short-term drugs stop working. This can be lessened with caffeine (Mountain Dew, coffee, energy drink)

Effects of Long-Term Use

• Potential for physical dependence and addiction
• Stimulants have many “desirable” gains…increased alertness, attention, weight loss
• Euphoric feelings are most intense when the user snorts or injects the drug
• Increased risk for cardiovascular effects, seizures, paranoia, hostility, agitation
A Brief History…

- ADHD was once called Minimal Brain Dysfunction before it was renamed
  - ADD vs. ADHD
- Ritalin was a drug looking for a disorder
- Guess which nation consumes 85% of the world’s Ritalin?

Who Takes the Most Ritalin?

![United States Tops World Consumption of Ritalin](image)

The United States, with less than 5 percent of the world’s population, accounts for 85 percent of the world’s consumption of Ritalin.

Ritalin Use Through the Ages

Federal Classification and Penalties

• Many stimulants are Schedule II
  – Schedule II drugs must have a written prescription to be refilled
  – One-month supply only
  – Class A felony for illicit trading in these drugs
• Strattera is an exception—it is a non-controlled substance
Ritalin as a Drug of Abuse

- Ritalin prescriptions have increased 1000% over the past decade
- Ritalin is the most stolen controlled substance in the US
- Permanent lung damage can result from injected Ritalin
- Loss of nasal cartilage and nose bleeds are seen with snorted Ritalin

Ritalin in the Schoolyard

- Sold for about $10/pill
- Usually crushed and snorted to give a high like cocaine
- Sometimes called “kiddie cocaine”
- Kids can “cheek” the medicine if given at home to snort it or sell it later
- When coming down from the drug, agitation, depression, mood swings may be seen
Snorting Ritalin

Drugs and Duration

- Ritalin, Methylin: 3-5 h
- Ritalin SR, Metadate ER, Methylin ER: 6-8 h
- Concerta, Metadate CD, Ritalin LA: up to 14 h
- Focalin: 4-5 h
- Dexedrine, DextroStat: 4-6
- Dexedrine Spansules: 6-10
- Adderall: 4-6
- Adderall XR: 10-12
Potential Side Effects

- Dangerously high body temperature or an irregular heartbeat after taking high doses
- Cardiovascular failure or lethal seizures
- For some stimulants, hostility or feelings of paranoia after taking high doses repeatedly over a short period of time

Drug Interactions With Stimulants

- OTC decongestant medications (Sudafed, Phenylephrine, Coricidin)—high BP, irregular HR
- Antidepressants, unless supervised by a physician (Nardil, Prozac, Paxil)—psychosis, high HR
- Some asthma medications (Proventil)—high HR
- Any drug that raises blood pressure is a dangerous combination (energy drinks??)
- Any drug that affects mood should be assessed (alcohol!!)
Ritalin

- Methylphenidate: JIF, MPH, Skippy, the smart drug, vitamin R, kiddie cocaine
- Injected, swallowed, snorted
- May cause an increase or decrease in blood pressure, psychotic episodes, digestive problems, weight loss, loss of appetite.

Adderall (Amphetamine)
Dexedrine (Dextroamphetamine)

Focalin (Dexamethylphenidate)
Daytrana (Methylphenidate)

Concerta (Methylphenidate)

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<td>72 mg q am or up to 2 mg/kg/day*</td>
<td>16 mg</td>
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Strattera (Atomoxetine)

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Why the GI Drugs Are Controlled

- Risk for diversion
- Side effects/Toxicities

Antiemetics, GI Drugs and Scheduling

- Belladonna and Opium (II), Paregoric (III), Diphenoxylate (V)
  - Excessive doses can cause morphine-like effects. These may be reversed with naloxone.
- Dronabinol (III) and Nabilone (II)
  - Derivatives of THC, with some of the effects of THC—dissociation, depersonalization, dysphoria.
Antiemetics, GI Drugs and Scheduling

- Diethylpropion, Phentermine, Sibutramine (IV)
  - Sibutramine may increase HR and BP; has some drug interactions, so use should be monitored
  - Diethylpropion and Phentermine are related to amphetamines and can cause increased alertness, nervousness, insomnia. Watch for abuse.

Qsymia

- A combination of topiramate and phentermine
  - Schedule IV CS for weight loss
  - Topiramate may cause cleft palate and also decreases effectiveness of contraceptives
  - Phentermine causes CNS effects
Topics Covered

• Controlled Substances and the Schedules
• Prescribing Opiates
• Prescribing Sedatives
• Prescribing Stimulants
• Prescribing GI Drugs—Antidiarrheals and Drugs for Weight Loss
• Prescribing Anabolic Hormones
• Controlled Substances and the NP
• Summary

Hormones and Other Drugs, and Scheduling

• Methyltestosterone, Nandrolone, Fluoxymesterone, Testolactone, Testosterone (III)
  – Used mostly for replacement, catabolic states, male hypogonadism, delayed puberty, and female breast cancer
  • May be abused for effects on growth; risk for diversion is high
• Promethazine combinations (V)
  – Sedating H1 blocker that may cause respiratory depression, general CNS depression
Topics Covered

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Where Can NPs Prescribe Controlled Substances?

• Regulations vary by State
• Some States are very restrictive and allow no prescriptive privileges for CS
• Some States allow for prescribing of all CS in schedules II-V
• Many States are “in the middle” allowing for limited CS prescribing
Consistencies in the Guidelines

- If the NP is authorized to write a prescription, the signature of the collaborating physician is not required
- Any prescription for a CS requires the NP’s DEA# (and assumes writing this is legal in the state of practice)
- All prescriptions will contain the standard requirements for a CS Rx

Interesting Quirks in the Guidelines

- Some States allow for the NP to prescribe opiates, but not drugs for weight control
- Some States allow Schedule II drugs to be prescribed only in settings such as hospice or hospital
- Some States require collaborating physician’s name
- Some States require use of special prescription pad or form
A Useful Site to Know

• From Medscape Nurses

Topics Covered

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Why is it Important?

• Judicious prescribing
• Drugs with danger associated with use
  – Risk for addiction (physical, psychological)
  – Side effect profile
  – Risk for diversion
  – Interactions of note
  – Risk for abuse…

Of the Top Ten Most Abused Prescription Drugs….

• Hydrocodone
• Codeine
• Fentanyl
• Morphine
• Diazepam
• Alprazolam
• Zolpidem
• Eszopiclone
• Methylphenidate
• Dextroamphetamine
The List vs. Schedule

- Hydrocodone (III)
- Codeine (II)
- Fentanyl (II)
- Morphine (II)
- Diazepam (IV)
- Alprazolam (IV)
- Zolpidem (IV)
- Eszopiclone (IV)
- Methylphenidate (II)
- Dextroamphetamine (II)