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# Pain Medication and Adolescents: Special Considerations

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# Educational Objectives

At the conclusion of this activity participants should be able to:

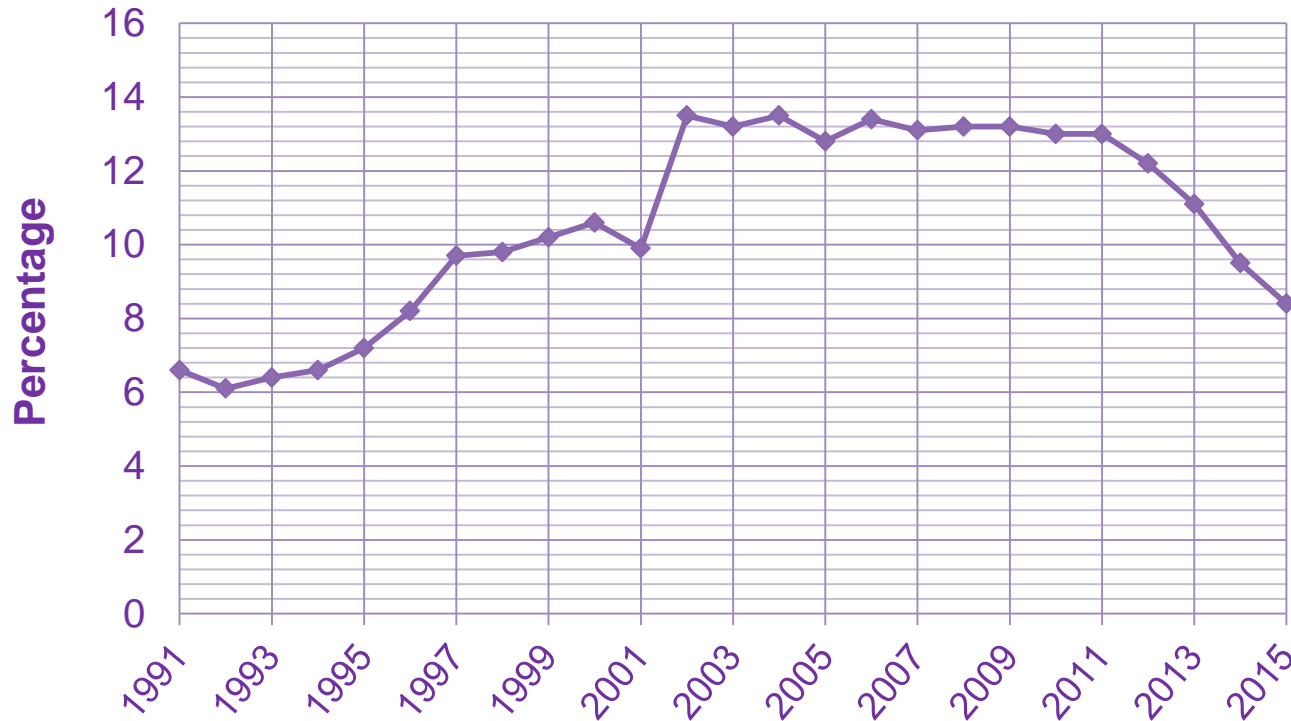
- Review data to support that adolescence is a vulnerable time to be exposed to opioids.
- Develop skills to provide information about the risks of opioids as an important component of treating adolescents.
- Recognize that many principles about safe opioid prescribing pertain to adolescents as well as adults.

# Contents

- Epidemiology
- Acute Pain
  - Avoiding inappropriate use of pain medications
  - Using pain medications safely in teens with a substance use disorder
  - Identifying teens who are medication seeking
- Chronic pain

# Epidemiology

## Rates of Opioid Misuse by 12<sup>th</sup> Graders



The rates of adolescent misuse of opioids began to rise in the 1990's, in concert with the development of stronger medications and more aggressive pain treatment.

# Adolescents and Use of Opioids

**Misuse of opioids by high school students is common. It is important to assess the motivation for misusing medication to guide the appropriate level of intervention.**

- 8.4% of US high school seniors reported prescription opioid misuse in their lifetime.
- There are two main reasons for misuse
  - Self-medicate for pain
  - “Recreationally” (for euphoria)

National Survey on Drug Use and Health (NSDUH) 2012; Johnston LD, et al., Monitoring the Future – National Results on Adolescent Drug Use: Overview of Key Findings, 2015; Cranford JA, Boyd, C., Addict. Behav. 2013

McCabe, et al.,(2012). Adolescent nonmedical users of prescription opioids: brief screening and substance use disorders. *Addictive Behavior*



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# Adolescents are at High Risk When Exposed to Opioids

**Exposure to opioids is a risk factor for the development of opioid use disorder in adolescents; attempts to find effective alternatives to opioids for pain should be sought.**

We recommend they receive brief medical advice:

- Advise teens to avoid opioid pain medications unless prescribed by a physician.
- Opioids have many side effects, including constipation, nausea and GI upset and itching.
- Adolescence is a vulnerable time when development of opioid use disorder can occur.

# Prescription Opioids

- Some adolescents use opioids “recreationally” for the associated euphoria
- These teens are at risk to develop a severe substance use disorder (addiction) requiring specialty treatment

National Survey on Drug Use and Health (NSDUH) 2009. Drug Abuse Warning Network (SAMHSA) 2009. Johnston LD, et al., Monitoring the Future – National Results on Adolescent Drug Use: Overview of Key Findings, 2010

Friedman R.A., The Changing Face of Teenage Drug Abuse—The Trend toward Prescription Drugs. NEJM, 354(14): 1448-1450. 2006. National Survey on Drug Use and Health (NSDUH) 2006



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Reasons for using opioids	
Easy to get from medicine cabinet	62%
Available everywhere	52%
Not illegal	51%
Easy to get through other people's prescriptions	50%
Can claim to have a prescription if caught	49%
Cheap	43%
Safer to use than illegal drugs	35%
Less shame attached to using	33%
Parents don't care as much if you get caught	21%

***Reasons teens report for misusing prescription medications.*** Note they fall into 3 categories, 1) easy accessibility, 2) less stigma, 3) safer than other drugs



# Anticipatory Guidance

- The number of opioid prescriptions given to adolescents has increased dramatically in the past decade.
- The majority of these prescriptions are NOT written by primary care pediatricians. Dentists, Emergency Department physicians and orthopedists frequently prescribe opioids.
- Since any adolescent may receive an opioid prescription we recommend including anticipatory guidance regarding opioids for all adolescents and their parents as part of routine care.
  - At times, opioids are necessary to manage pain.
  - If you are ever prescribed an opioid please use it exactly as prescribed.
  - Never share or distribute opioid medications.
  - We recommend that parents monitor (hold and distribute) opioid medications.
  - Once the need for opioids has resolved, discard any remaining medications. Do NOT store extra pain medications in the house.

# Treating Pain

Opioids are powerful pain medications that have many side effects and high risk potential for misuse, diversion and addiction. While they can be used safely to treat pain, other, safer alternatives should be considered first.

- Non-pharmacologic treatment options: heat, ice, compression, splinting, physical therapy, biofeedback, etc.
- Non-opioid pain medications: ibuprofen, acetaminophen and newer non-opioid options. Seek guidance from a pain specialist if needed.
- Assess and treat underlying mental health disorders, particularly for patients with chronic pain. Anxiety and depression in particular reduce pain tolerance.

# Managing Acute Pain

- In the pediatric setting acute pain is much more common than chronic pain.
- Always maximize non-opioid therapy.
- Avoid opioids for minor trauma, musculoskeletal pain, head ache, abdominal pain, dysmenorrhea or other relatively minor, self-limited pain that can be managed otherwise.
- If prescribing opioids, discuss side effects and risks. Ensure proper monitoring. Keep prescriptions small and re-evaluate frequently.

National Institute on Drug Abuse (NIDA). (2012). *Safe Prescribing for Pain | National Institute on Drug Abuse (NIDA)*. NIDAMED.

Dodds, A. (2008). *Pain Management: From Basics to Clinical Practice*. Elsevier Health Sciences; Manchikanti, et al.,(2012). American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic non-cancer pain: Part I and II. *Pain Physician*



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# Mark

- Mark is a 17 year old boy who has been followed in your office since infancy. He is healthy with no significant past medical history.
- He presents with pain after inverting his ankle during football practice several hours ago.
- He has diffuse swelling and tenderness of his right ankle. Range of motion is normal, there is no point tenderness. An x-ray reveals soft tissue swelling but no fracture.

# Treatment Plan

- You wrap Mark's ankle in an ace bandage and teach him how to use crutches.
- You advise him to “rest, ice, compress, elevate” with ad lib weight bearing but no football practice or physical education for the next week.
- You prescribe ibuprofen 400 mg q 6 h prn for pain.
- He says that he is in a lot of pain and asks if you can prescribe oxycodone.

# Now What?

A request for an opioid is always concerning and brings up questions: Is the pain intolerable? Is the patient seeking opioids? Does the patient want to use opioids for a quick “fix”?

Gather more history to try and better understand the motivation.

- At Mark’s recent health maintenance visit he reported alcohol use “once or twice” in the past year and no other substance use. He received advice to stop drinking.
- When asked to rate his pain, Mark says it is 2-3 out of 10 when he is resting but shoots up to 8-10 with weight-bearing.
- The clinician tells Mark that this is normal and advises him to avoid weight bearing for the next 5 days while his ankle heals.
- Mark says that he has a big game on Saturday that he cannot miss and he wants pain medication so that he can play.

# Brief Advice

Mark falls into the category of adolescents who is requesting to use opioids for pain control. Below is guidance for giving advice to Mark:

- Acknowledge the pain and make a plan for pain control (i.e. non-weight bearing for a few days, compression, ice which may speed healing).
- Set realistic expectations. Injuries need time to heal. Rushing the process by blocking/ignoring pain can end in a more severe season- or even career- ending injury.
- Involve parents in the discussion if at all possible. Let them know the recommendation for Mark to sit out a few days.
- Follow closely; re-evaluate if pain is not improving as predicted.

# Jessica

- Jessica is a 16 year old girl who has been followed in your practice. She has depression and sees a counselor. She has not been interested in anti-depressant medication.
- She has chronic “functional” abdominal pain for which she is followed by a GI specialist and is doing well.
- At her last appointment 4 months ago a screen was negative for past year use of tobacco, alcohol or cannabis.
- Two days ago she was involved in a car accident; ED evaluation found no major injuries. She was advised to take ibuprofen for musculoskeletal pain.
- She presents for evaluation of continued neck pain.
- She asks if you can prescribe “something stronger” for pain



# Now What?

Jessica's history is complicated by both a mood disorder and a chronic pain syndrome which will make her pain harder to treat. Opioids are not indicated in the treatment of minor musculoskeletal pain, and patients with co-occurring disorders are particularly vulnerable to developing substance use disorders.

- The clinician asks Jessica how she has been doing since the accident - has the pain been getting better, worse or staying the same?
- Jessica says that she was not able to get out of bed at all since the accident, except to come to this appointment. She has missed two days of school, and her abdominal pain is worse than usual as well. She is hoping a pain medication will help treat both so that she can go back to school.

# Brief Advice

Opioids are not indicated. Jessica will need supportive, empathetic advice and counseling in order to help improve her level of functioning.

- Re-evaluate. Patients with chronic pain disorders can also have a serious injury that should not be over looked.
- Acknowledge the pain. Set realistic expectations and expected time courses. Reassure her that most injuries get better in a few days.
- Maximize non-pharmacologic interventions. Ice or heat, neck collar if indicated, avoid strenuous activity such as gym class.
- Encourage her to get out of bed and return to school.
- Recommend extra counseling sessions to help Jessica manage stress.
- Discuss the plan with her parents if possible.

# Ben

- Ben is an 18 year old boy with a positive family history of alcohol use disorder who recently completed a two week “acute residential treatment” program for an alcohol use disorder.
- 8 days ago he had an open reduction of a tibia-fibula fracture he sustained in a skiing accident.
- He was discharged with a 7 day prescription for opioid pain medication. Today was his first day without any medication and he is in significant pain. He has a follow up in orthopedics 2 days.
- He asks for a refill of his pain medication.

# Now What?

Ben has an obvious source of pain and may benefit from opioid pain medication. Patients with known substance use disorders are at risk of becoming addicted to opioids, though even patients with opioid addiction can be prescribed safely with appropriate monitoring.

- Re-evaluate. Ensure Ben does not have an infection or surgical complication that is increasing his pain. Speak with the surgeon.
- Ensure non-pharmacologic treatments are maximized.
- Double check state prescription registries if available to confirm the number of pills prescribed previously.
- Set realistic expectations regarding pain and recovery.
- If prescribing opioids:
  - Discuss side effects and risks. Patients should NOT consume any alcohol while taking opioids.
  - Ask parents to monitor and dispense all doses.
  - Keep the prescription small and re-evaluate frequently.

# Kayla

- Kayla is a 16 year old girl who was previously seen once, 6 years ago, for routine health maintenance.
- She presents for an urgent care appointment after slamming her finger in a door.
- She reports severe, diffuse pain on exam but has no redness or swelling. Range of motion appears to be limited by pain.
- You diagnose soft tissue injury and recommend ice, “buddy taping” and non-steroidal anti-inflammatories as needed.
- Kayla says the pain is unbearable and asks for pain medication.

# Now What?

Kayla's request for medication is concerning, particularly since her pain seems to be out of proportion to her physical exam. Since she is not well known to the practice the clinician decides to do more history and screening.

- The clinician tells Kayla that she always asks kids about substance use before prescribing any medication.
- Kayla reports daily tobacco use and “monthly” alcohol and cannabis use. She used pain medications “once or twice” in the past year and denies use of other substances.
- When asked about the pain medication she said that she was “experimenting” with friends. She stopped because one of her friends overdosed, which scared the entire group.

# Brief Advice

Kayla's history of tobacco, alcohol, cannabis and opioid use put her at high risk of a substance use disorder. Based on her presentation, her clinician is concerned that she may have developed an opioid use disorder.

- Acknowledge the pain, discuss pain control, set realistic expectations.
- Discuss why opioids are not indicated for minor soft tissue injury.
- Tell Kayla that you are concerned and would like to discuss her substance use more. This is an opportunity for a brief intervention (see box below).
- Let Kayla know that some kids develop an opioid use disorder by accident, even after just using a couple of times. Tell her that if she is concerned she may have a drug problem that you can help.
- Ask to include her parents in the conversation.

Screening, brief intervention, referral to treatment (SBIRT) is recommended routine care for all adolescents.

# Managing Chronic Pain

- Chronic pain is relatively uncommon in pediatrics. Most patients are co-managed with specialists; treatment requires coordination.
- Primary care providers may be asked to follow along medically, refill prescriptions, provide guidance for patients and parents and refer if the course of an illness changes.
- While developing an addiction in the course of closely monitored pain management is rare, adolescents should be watched closely for developing signs of addiction.



# Lisa

- Lisa is a 16 year old athlete with spondylolysis. She failed conservative management with NSAID's. She is wearing a back brace; surgery is planned in 6 months.
- Her orthopedist prescribed opioids 3 weeks ago to help her manage back pain.
- She presents for a routine appointment in primary care and reports that she is having difficulty despite the opioid medication.

# Now What?

Lisa has an identified source of pain, though it is not responding to management even with opioid therapy. The differential diagnosis includes progression of the disease process, depression or a mental health disorder interfering with treatment/functioning or medication seeking/development of a substance use disorder.

- You interview Lisa privately. She likes school though she has missed nearly 3 weeks due to pain.
- She spends most of her days lying down. A tutor comes 3 times a week so that she can keep up. She uses social networking to keep up with friends. She enjoys watching movies when she is feeling relatively better.
- She denies past year use of tobacco, alcohol or cannabis.
- She has never misused, sold or shared her prescription medication. In fact, she notes that her mother keeps the medication locked up and only gives it to her once a day.

# Signs of Opioid Use Disorder

Lisa is denying high risk behaviors listed below that are very concerning for signs of opioid use disorder.

- frequent Emergency Department visits for pain
- buying pain medications illicitly
- loss of control of use of opioid medications
- consequences of opioid use
- forging prescriptions
- escalating dose or use of medications by an alternate route
- combining pain medications with other drugs

# Collateral History

The clinician speaks with Lisa's mother to confirm the history and in particular to ask about administering the prescribed pain medication.

- Lisa's mother says she does not believe Lisa uses tobacco, alcohol, cannabis or has misused her prescription medications.
- She confirms that she has not been giving the full prescribed dose because she has heard that the medications are very addictive and she is concerned. She notes that a paternal uncle has a substance use disorder.
- She thinks that Lisa may be depressed; her mood is often low and she spends a lot of time "trapped in bed."

# Brief Advice

Lisa seems to be under treated for pain. She may also have symptoms of a mood disorder. You speak to her and her mother together.

- You acknowledge concerns about opioids. They have addiction potential and should be used with caution.
- You give Lisa and her mother a brief overview of opioid biology and explain that pain can be treated safely.
- You recommend that Lisa take the pain medication that has been prescribed to her to see if it can help her get out of bed and back to school.
- As with all patients, you ask Lisa and her mother to sign a pain medication agreement.
- You ask Lisa to return in one week for a follow up and to meet with the social worker in your office for emotional support.

# Safe Prescribing

- One prescribing doctor; one pharmacy
- Limit early refills and lost/stolen prescriptions
- Never change dose/frequency without consulting MD
- Sporadic pill counts
- Parents hold onto meds at all times; supervised dosing
- Report symptoms and side effects honestly
- Report any ED visits
- Monitor for illicit drug use with urine testing
- Never obtain opioids or other substances illicitly

# Follow-up

- Lisa returns one week later.
- Her mother has given her the pain medication as prescribed and she is a bit better. She still has pain, but was able to get out of bed and attend school last week.
- Lisa complains of constipation and nausea and asks if the medication can be changed. You agree to drop the dose slightly.
- She saw the social worker and thought that their conversation was useful. She has agreed to see her for weekly counseling.

# Inadequate Pain Management vs. Opioid Use Disorder

Inadequate Pain Management	Opioid Use Disorder
Functioning improves with treatment	No change in functioning with treatment
Opioid side effects bothersome	Minimal or no report of side effects
Dose easy to stabilize	Constant requests for dose escalation
Left over medication	No left over meds, frequent requests for early refills

Early in the course of treatment it may be very difficult to distinguish between these two. We recommend erring on the side of prescribing a short course of medication. A small opioid prescription is unlikely to change the course of opioid use disorder, but may significantly improve pain.



# Summary

- Adolescence is a vulnerable time to be exposed to opioids. Non-opioid therapies should be used whenever possible and effective.
- Providing information about the risks of opioids is an important component of treating adolescents.
- Many principles about safe opioid prescribing pertain to adolescents as well as adults.

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# PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

**For more information visit:**

**<https://pcssNOW.org/mentoring/>**

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American Pharmacists Association	International Nurses Society on Addictions
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*Funding for this initiative was made possible (in part) by grant no. 1H79TI081968 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.*