

March 2019

January Clinical Conversation: Addressing the Opioid Crisis with Evidence-Based Treatment

*Clinical Conversation: January 22, 2019
Presented by Sharon Levy, MD, MPH, director, Adolescent Substance Use and Addiction
Program, Boston Children's Hospital*

Over the past 25 years, opioid abuse has become a public health crisis, fueled by an increased emphasis on pain management and the development of potent oral opioid medications. Among adolescents, the rate of nonmedical use of opioid medication has doubled, with a corresponding increase in the rate of opioid use disorder (OUD). Substance use is the primary cause of disease, disability, and premature death among those aged 15 to 24.

Yet, in the United States, only 10 percent of adolescents receive treatment for OUD, and a fraction of those receive medication-assisted treatment (MAT), even though studies have found that medication is effective in this age group. This is due in part to a lack of providers trained to manage OUD in adolescents and few programs dedicated to treating them.

Pediatricians can play an important role in treating OUD. In 2016, the American Academy of Pediatrics (AAP) issued a policy statement recommending that pediatricians make drug counseling and MAT part of their practice.

At the January MCPAP Clinical Conversation, Dr. Sharon Levy, director of the Adolescent Substance Use and Addiction Program at Boston Children's Hospital, discussed adolescent opioid use and evidence-based treatment.

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Understanding adolescent brain development and drug use

Brain development is a major factor in adolescent drug use. Different regions of the brain develop at different rates. In the adolescent brain, the region that controls motivation and reward – the nucleus accumbens -- is more mature than the prefrontal cortex, which is not fully developed until age 25.

“Anyone who has spent time with teenagers knows that they can make decisions impulsively and don’t always think through their actions, which puts them at risk for trying substances. Since their brain is not yet proficient at the basic components of mature decision making, they don’t have the protection adults have,” says Dr. Levy.

The immaturity of the prefrontal cortex also appears to leave the brain’s reward center vulnerable to changes that trigger cravings and compulsive substance use. It takes fewer exposures to drugs for adolescents to develop a substance use disorder (SUD).



Risk factors

Despite this neurologic vulnerability, most teens, even those who experiment with opioids, do not develop OUD. The following are risk factors for OUD:

- Age of opioid use – the earlier an adolescent begins nonmedical use of opioids, the greater the risk of a lifelong addiction.
- Availability of opioids – the overuse of opioids as pain medications has created easy access to the drugs. Most adolescents – 84.2 percent – obtain opioids from a family member or peer.
- Behavioral health conditions – major depression, anxiety disorder, and panic disorder can predispose adolescents to opioid use.
- Substance use – cigarettes, marijuana, and alcohol almost always precede opioid use and may make the brain more vulnerable to opioid use disorders.
- Genetics and family history – addiction has a strong heritability factor. A study reported in *Pediatrics* found an association between parental opioid use and adolescent use.

Opioid use begins early

The highest rates of drug use initiation occur in late adolescence/early adulthood and decrease substantially after age 20. Ninety percent of

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adults in treatment for a substance use disorder initiated drug use before age 18. One third of patients in treatment for an opioid use disorder started using opioids before age 18, and two thirds started before age 25.

What pediatricians can do

Just as many pediatricians treat behavioral health conditions, such as depression and ADHD, they can treat OUD with a similar approach that includes medications, counseling, and case management. According to surveys conducted by Boston Children's Hospital and MCPAP, the vast majority of pediatricians report that they screen all adolescents for substance use and provide counseling.

However, there are still hurdles to be overcome, such as the stigma attached to substance use, the challenge of treating patients who have OUD and psychiatric conditions, and the concern that offering drug treatment will attract too many patients with substance use disorders.

"We know that this is happening on our watch," says Dr. Levy. "Regular screening, monitoring, advice, and counseling for patients who use substances can prevent them from advancing to OUD, the end state of a long process."

The pediatric office is the natural place to treat substance use problems. Adolescents are more comfortable in this setting, with their familiar provider, than they are at treatment clinics.

"Most teens with severe OUD can be treated in the outpatient setting. Patients who need a

treatment program must have ongoing treatment when they are back in the community because addiction is a chronic disease," says Dr. Levy.

Dr. Levy recommends that pediatricians:

- Offer anticipatory guidance – provide information about substance use and reinforce patients who are not using
- Advise all adolescents and parents that choosing not to use substances is the healthiest choice for teens and is one of the best things teens can do to protect their developing brains
- Refer patients who report substance use to counseling and follow up with them
- Become educated about substance abuse disorder treatment (see resources below)
- Prescribe medications for severe OUD which, Dr. Levy reports, has clear symptoms which are not difficult to identify
- Call MCPAP if any questions

Prescribing medications

Pediatricians who receive eight hours of training can apply for a waiver from the Drug Enforcement

Administration to prescribe buprenorphine.

This opioid agonist gently stimulates the opioid



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system and has a longer half-life than other opioid agonists and less potential for misuse. It is the clear standard of care for adults and a growing number of *studies* are showing its efficacy in treating adolescents.

Information about training is available at the *American Academy of Pediatrics* and *Prescriber's Clinical Support System*. More than 38,000 physicians can prescribe buprenorphine nationwide, but only one percent are pediatricians.

Integrating addiction treatment into community practices

One approach to addressing adolescent substance use is integrating addiction treatment into community pediatric practices. This model has been pioneered at two Massachusetts practices, Wareham Pediatrics and CHA-Bridgewater, which are members of the Pediatric Physicians' Organization at Children's (PPOC) network. With a grant from the Blue Cross Blue Shield of Massachusetts Foundation, the PPOC and the Children's Adolescent Substance Abuse Program worked with the practices to institute an on-site program, which includes a part-time integrated clinical social worker specializing in drug counseling.

In the first four months of the program at Wareham Pediatrics, out of 683 patients seen for medical appointments, 20 were referred for substance use disorder treatment, and 13

completed at least one visit with the social worker. Three patients were diagnosed with OUD, and two were prescribed buprenorphine. Prescriptions are initially written on a weekly basis, and urine testing is done to ensure the drug is being taken.

The PPOC has received a second grant that will enable an additional 25 to 35 practices statewide to institute integrated addiction treatment over the next five years. "It's our responsibility as providers to ensure that adolescents have access to the treatment they need in the community," says Dr. Levy.

Resources

Adolescent Screening, Brief Intervention and Referral for Treatment (SBIRT) Tool Kit for Providers: <https://massclearinghouse.ehs.state.ma.us/PROG-BSAS-SBIRT/SA1099.html>

Children's Hospital Substance Abuse Program: http://www.childrenshospital.org/centers-and-services/programs/a_-e/adolescent-substance-abuse-program/training-services

Prescriber's Clinical Support System: <https://pcssnow.org/>

American Academy of Pediatrics MAT training: www.aap.org/mat

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What's Happening
for you at MCPAP

Clinical Conversations



We invite you to log in on the fourth Tuesday of each month from 12:15 - 1:15 p.m. to learn more about managing pediatric behavioral health issues in your practice.

April

**Massachusetts Department of
Mental Health: Services and
Resources Available in Your
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If you are interesting in receiving monthly Clinical Conversation registration emails, updates, and newsletters please email us at

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