



Modern Pain Management Program Reduces Opioid Overprescribing by 91 Percent in Six Months

Case Study

Our partnership with Aetna Better Health of Kentucky is addressing the opioid crisis by reducing opioid overprescribing among dental providers.

The Problem

Opioid addiction has reached crisis levels in the United States. Addiction to synthetic opioids is a key driver of overdose deaths, which surpassed 100,000 for the first time in 2021 (an increase of 28.5 percent over 2020 levels).¹

Research shows that the most significant predictor of long-term opioid use is the number of days supplied in the first opioid prescription an individual receives.² According to a study published by the U.S. Centers for Disease Control and Prevention (CDC), “the likelihood of chronic opioid use increased with each additional day of medication supplied starting with the third day.”³ In 2016, the CDC issued guidelines recommending that dental prescribers not prescribe more than three days of opioids for acute dental pain.

The CDC also notes that dentists are among the most common opioid prescribers, and treatment for acute dental pain represents a high percentage of individuals’ first opioid prescriptions, particularly in teens and

young adults.⁴ One retrospective study published in JAMA Internal Medicine found that “a substantial proportion” of 16- to 25-year-olds were first exposed to opioids through prescriptions issued by dental providers, often for third molar (also known as “wisdom tooth”) extraction.⁵ Moreover, research indicates that more than half of dentists were prescribing more than three days of opioids for acute dental pain, exceeding the CDC’s recommendation.⁶

Additionally, in 2017, the Kentucky General Assembly amended KRS 218A.205 to require the Board of Dentistry to establish regulations to limit prescribing to a three-day supply or less for pain as an acute medical condition with exceptions.

Avēsis saw an opportunity to reduce the incidence of long-term opioid use – and by extension, decrease the number of people whose lives are ravaged by substance use disorder – by helping to ensure that dental providers are not overprescribing opioids for acute dental pain.



Our Solution

Avēsis partnered with Aetna Better Health of Kentucky's Medicaid program to identify dental prescribers who had prescribed opioids beyond the three-day threshold. In 2019, Avēsis worked with Aetna to access prescription data and identified 241 dental prescribers who wrote prescriptions exceeding the three-day mark. A few of those prescribers were oral surgeons with legitimate clinical reasons for prescribing opioids beyond three days for acute dental pain that was severe. But for others, the habit of writing longer term prescriptions was easier to break.

To reduce the number of prescribers who were exceeding the three-day limit, Avēsis and Aetna worked together to design and mail out educational material about the State and the CDC's recommended prescription guidelines for acute dental pain and why they're important. The material presented the results of recent research connecting opioids' overprescribing by dental providers to patients' long-term opioid use and encouraged providers to abide by the three-day prescription recommendations.

Providers who had a significant volume of overprescribing also received telephonic peer-to-peer outreach from Jerry Caudill, DMD, FAGD, MAGD, CDC, CTCP, FPFA, FICD, FACD, associate national dental director and Avēsis' Kentucky state dental director. Dr. Caudill supported and coached providers in changing their prescription practices for acute dental pain.

Our Results

After six months, the number of dental prescribers who were exceeding the three-day threshold was down from 241 to 71 – a decrease of more than 70 percent. There was an even greater decrease in the total number of prescriptions that were longer than three days: In six months, the volume of prescriptions longer than three days dropped by 91 percent. That means that the prescribers who continued to prescribe opioids beyond the three-day period did it less often than they had before – exposing fewer patients to the risk of developing substance use disorder.

Avēsis has continued to partner with Aetna Better Health of Kentucky in this work on a quarterly basis – and the program has continued to see dramatic improvements. In the first quarter of 2022, only 18 dental prescribers exceeded the three-day prescription threshold. Similarly, the volume of prescriptions longer than three days had now dropped by 97 percent. With every decrease in overprescribing, patients' risk of long-term opioid use also decreases – a difference that may ultimately save lives.

To learn more about our mobile/portable dental services, connect with us.

1 National Center for Health Statistics, U.S. Centers for Disease Control and Prevention. Drug Overdose Deaths in the U.S. Top 100,000 Annually. Retrieved from https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm Accessed May 19, 2022.

2 Anuj Shah, Corey J. Hayes, Bradley C. Martin, Factors Influencing Long-Term Opioid Use Among Opioid Naive Patients: An Examination of Initial Prescription Characteristics and Pain Etiologies, *The Journal of Pain*, Volume 18, Issue 11, 2017, Pages 1374-1383, ISSN 1526-5900, <https://doi.org/10.1016/j.jpain.2017.06.010>.

3 Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:265–269. DOI: <http://dx.doi.org/10.15585/mmwr.mm6610a1external icon>

4 U.S. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Dental Pain. Retrieved from <https://www.cdc.gov/acute-pain/dental-pain/index.html> Accessed May 18, 2022.

5 Schroeder AR, Dehghan M, Newman TB, Bentley JP, Park KT. Association of Opioid Prescriptions From Dental Clinicians for US Adolescents and Young Adults With Subsequent Opioid Use and Abuse. *JAMA Intern Med*. 2019;179(2):145–152. doi:10.1001/jamainternmed.2018.5419.

6 Katie J. Suda, Jifang Zhou, Susan A. Rowan, Jessina C. McGregor, Rosanne I. Perez, Charlesnika T. Evans, Walid F. Gellad, Gregory S. Callip. Overprescribing of Opioids to Adults by Dentists in the U.S., 2011–2015. *Am J Prev Med* 2020;58(4):473–486. <https://doi.org/10.1016/j.amepre.2019.11.006>

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