



INNOVATE

EVIDENCE-BASED MENTAL HEALTH RESEARCH

Prescribing Practices for Pain Relief

According to the CDC, the opioid epidemic in the United States is responsible for 128 deaths every day.¹ Historically, trends in opioid prescribing have swung like a pendulum, first toward over prescribing for pain, and more recently, toward extremely limited prescribing practices and rapid tapering in doses for those currently prescribed. Tapering occurs when the dose that patients are prescribed is gradually decreased until the target dose for prescribing practices or the patient's treatment goals are met (e.g. pain reduction). Alicia Agnoli, M.D., M.P.H., M.H.S., assistant professor in the School of Medicine at UC Davis, received a Behavioral Health Center of Excellence pilot award for the study, "Investigating the risk of dose reduction for patients prescribed long-term opioid therapy."

Prescription opioids, like oxycodone, hydrocodone, morphine, and methadone are prescribed to treat moderate to severe pain. Due to tolerance effects

of these drugs, patients will often need more of the same medication over time to reach comparable pain relief that they previously found at lower doses. At higher doses there is a higher risk of overdose and death and evidence showing little to no benefit on reducing pain.² Because of these risks, providers have been encouraged to reduce opioid dosages for patients. However, the impacts of dose reduction on mental health outcomes have not been fully investigated.

High Dose-High Risk: What happens when doses are reduced?

In 2016, the Centers for Disease Control recommended a dose reduction for chronic pain of 10% per week to 10% per month depending on how long the patient has been taking opioids. Agnoli's previous research with her mentor, Joshua Fenton, M.D., M.P.H., found reduction rates were much higher than 10% on average, particularly for women.

According to Agnoli, "Opioids are risky, whether to be on them or taken off of them, [and] we need to understand how to strike a balance. Clinical guidelines for prescribing practices should be informed by robust research on their impact." Much of the current literature focuses on the adverse effects of high opioid doses, but less is known about the impact that taking a patient off opioids has on their mental health, risk of overdose, and illicit drug use.

Analyzing Claims Data to Inform Clinical Practices

For this study, Agnoli is using data from the OptumLabs Data Warehouse, a large administrative claims database, which represents almost a fifth of the commercially-insured population in the U.S. and a quarter of the Medicare Advantage population. The size of the data set allows the researchers to determine relationships between opioid dose tapering and the downstream risk of specific mental health outcomes. Agnoli hopes that her research will

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-Alicia Agnoli, M.D., M.P.H., M.H.S.

inform a more nuanced approach to opioid prescribing and create a less unilateral and aggressive approach to de-prescribing.

She describes chronic pain, opioid dependence, and opioid use disorder as a continuum with nuance that is often overlooked in care practices. According to Agnoli, this research has the potential to influence a physician's decisions about what interventions to provide for patients and to impact the standards of care for discrete but also overlapping areas such as pain management, opioid dependence, and mental health. She explains, “People are at risk of overdosing or attempting to end their lives because they are suffering from untreated pain. If they have a disruption in their mental health because of their dependence on previously prescribed opioids I think we have an urgency to investigate this and

figure out exactly what we might do as clinicians to mitigate that risk.”

UC Davis teams work interdisciplinarily between behavioral health, family medicine, pain management, and emergency services. Working together with informed standards, they are able to treat patients with best practices for overall health and well-being. By identifying risk factors for mental health outcomes following an opioid dose taper, prescribers can think about how their intervention may impact the patient as a whole and provide safer and more effective care plans for managing pain.

1. <https://www.cdc.gov/drugoverdose/epidemic/index.html>
2. https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf



Behavioral Health Center of Excellence at UC Davis

UC Davis launched the Behavioral Health Center of Excellence in October 2014 to advance mental health research and policy with initial funding from the Mental Health Services Act. The Innovate series highlights the Center's research pilot award program.

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