



ADDRESSING THE OPIOID CRISIS

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A NOTE FROM THE AUTHORS

Dental and medical professionals provide distinct types of health care with patient well-being as the common goal. The opioid crisis has caused each one of us to reevaluate our approach to patient pain management in significant ways.

As health care professionals, we are pleased to present a co-produced contribution into the body of research and recommendations surrounding this crucial effort. It is our belief that we are stronger when we work together.

We seek to educate and work toward a thoughtful reassessment of everyone's role in providing evidence-based acute dental pain management for patients. A reevaluation in prescribing habits in an effort to reduce opioid medication is important to both professions. As health care providers, we all can bring substantial weight to this fight. We believe it is our responsibility to do so.

Signed,

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SUMMARY

Every day, an estimated 116 Americans die related to opioid abuse¹. In 2017, the United States government declared the opioid crisis a public health emergency as the statistics of abuse, overdose and death increased to alarming rates⁴.

The relationship between prescription opioids and opioid abuse is well-documented. In fact, the misuse of prescription pain relievers is the second-most common form of illegal drug abuse, just behind marijuana⁸.

Opioid addiction can begin with wisdom teeth extractions. Some estimates report that upwards of 3.5 million teenagers and young adults are exposed to opioids for the first time when they are prescribed opioid medications for home use after third molar extractions¹⁵. Dentists are the leading prescribers for opioid medications for 10- to 19-year-olds¹⁶, an age at which the developing brain is at an increased risk of addiction¹⁷.

A powerful contributing factor to drug abuse is leftover pain medication. One study found that more than one-half of opioid medications prescribed after dental surgery were left unused¹⁹, and instead of disposing of these leftovers, a majority of families kept them “just in case²⁰.” The majority of abused medications by teenagers are obtained from a parent’s medicine cabinet²¹.

To meaningfully impact the opioid crisis, dental and medical providers alike can take the following steps:

Aim for pain reduction rather than elimination

Providers should not strive to make the patient pain-free, but educate patients that some discomfort is typical following dental procedures. Focusing on pain management and improving patient education will help decrease the potential for opioid addiction.

Change our prescribing practices

As multiple studies^{14, 30, 34, 36} have shown, care providers in both medical and dental environments should use a pain management guideline for acute dental pain which prioritizes the use of non-opioid medications. Use of a prescribing guideline, such as the University of Minnesota School of Dentistry guideline found on page 9, has shown a reduction of opioid prescriptions while providing appropriate pain control.

Educate and encourage safe disposal

Health care providers should educate themselves about the options for safe disposal of opioid medications. Providers should verbally review with the patient the importance of the use of the drug as directed and of the need for immediate disposal of unused medications. Providing appropriate patient education, including brochures or other resources that emphasize this message, in addition to offering multiple options for disposal are important. Many communities offer take-back programs, which may include prescription drop boxes at police stations, city halls or local pharmacies³⁷. Web-based resources, such as DEA or FDA websites, are also available^{37, 38}.

Find additional resources at:
DeltaDentalMN.org/opioids

SITUATION ANALYSIS

We are in the midst of a serious national health crisis.

Every day, an estimated 116 Americans die related to opioid abuse¹. According to the 2016 National Survey of Drug Use and Health, 11.8 million people aged 12 or older had misused opioids in the prior year, and the majority of them used prescription opioid medications².

In 2016, opioid overdose caused the deaths of more than 42,000 Americans- a 28 percent increase over the previous year³. In the same time period, the number of synthetic opiate overdose deaths more than doubled (9,580 to 19,413)³.

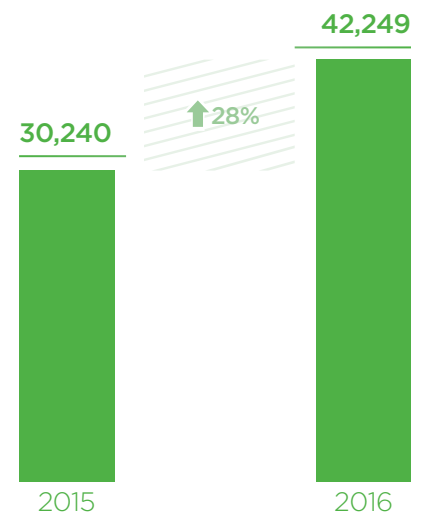
As the statistics of abuse, overdose and death increased to alarming rates, in 2017 the United States government declared the opioid crisis a public health emergency⁴.

The relationship between prescription opioids and opioid abuse is well-documented. The availability of prescription opioids has resulted in significant opioid misuse. There are more prescriptions for opioids, both written and filled, in the U.S. than any other country⁵. In 2012, the number of opioid prescriptions in the United States peaked at 255 million⁶. Of those, dentists prescribed 18.5 million⁷.

The misuse of prescription pain relievers is the second-most common form of illegal drug abuse, just behind marijuana⁸. Moreover, misuse of prescription opioids have been shown to serve as a gateway drug to heroin abuse⁹.

Today, drug overdoses are the No. 1 cause of death among Americans under 50 years of age¹⁰.

Opioid overdose-caused deaths in America 2015-2016



Today, drug overdoses are the No. 1 cause of death among Americans under 50 years of age.

HOW WE GOT HERE

The complexities surrounding the development of the opioid crisis cannot be overstated, and several driving forces behind its advancement have been identified. Pharmaceutical companies, government regulatory agencies, and health care providers are among the groups that played a role.



Stock photo posed by model.

In 2010, Hydrocodone/
Acetaminophen (Vicodin, Norco)
was the most prescribed drug in the
United States.

Pharmaceutical manufacturers introduced extended-release opioid medications in the 1990s. These newer opioids were marketed not just for advanced cancer and surgical procedures, but for chronic pain from other causes. Providers were reassured by the same manufacturers that the drugs were not addictive¹¹. Following these assurances, prescribing rates rose so quickly that in 2010, Hydrocodone/Acetaminophen (Vicodin, Norco) was the most prescribed drug in the United States¹².

At the same time, health care regulatory agencies endorsed pain as the fifth vital sign¹³.

The endorsement of the fifth vital sign by the Joint Commission on Accredited Healthcare Organizations in 2001 and the Center for Medicare and Medicaid Services required providers to assess patients' pain level¹⁴. This became a metric and quality measure tied to reimbursement.

Opioid addiction can begin with wisdom teeth extractions. Some estimates report that upwards of 3.5 million teenagers and young adults are exposed to opioids for the first time when they are prescribed opioid medications for home use after third molar extractions¹⁵. Predictably, dentists are the leading prescribers of opioid medications for 10- to 19-year-olds¹⁶, an age at which the developing brain is at an increased risk of addiction¹⁷.

Exposure to opioids in this age group has been associated with higher risk for future misuse of the drug. According to a 2016 report, legitimate opioid use before high school graduation is independently associated with a 33 percent increase in the risk of future opioid misuse¹⁸.

A powerful contributing factor to drug abuse is leftover pain medication. One study found that more than one-half of opioid medications prescribed after dental surgery were left unused¹⁹, and instead of disposing of these leftovers, a majority of families kept them "just in case²⁰." If medications are not secured, a teenager can obtain medications from a parent's medicine cabinet. In fact, two-thirds of teens who report abuse of prescription pain relievers obtained them from friends, family or an acquaintance²¹.

This "just-in-case" attitude highlights not only a general lack of awareness to these risk factors, but emphasizes the lack of information about necessary and appropriate disposal of opioid medications.

STATE AND NATIONAL ORGANIZATIONS REACT

Multiple organizations have recognized the need for intervention to address opioid addiction and abuse. The following organizations have developed policies and education to address the problem:

The American Dental Association (ADA)

updated its opioid statement in 2016 to include recommendations for dentists to consider non-steroidal anti-inflammatory analgesics as the first-line therapy for acute pain management²², and in 2018 released a new opioid policy which supported: prescription limits and mandatory continuing education for dentists; a statutory opioid dosage duration limit of seven days; and dentists registering with and using Prescription Drug Monitoring Programs (PDMP)²³.

The American Association of Oral and Maxillofacial Surgeons (AAOMS)

published a white paper on opioid prescribing and pain management²⁴.

The Minnesota Board of Dentistry issued a statement on safe prescribing and use of opioids in dental settings²⁵.

The University of Minnesota Department of Oral and Maxillofacial Surgery implemented a mandatory opioid protocol, developed to promote safe opioid prescribing for acute postoperative pain, which closely resembled the ADA and AAOMS recommendations.

The Nebraska Board of Medicine has offered guidance that prescribing must include a doctor-patient relationship and should be based on a medical diagnosis and the documentation of unrelieved pain²⁶.

Several medical organizations, including the CDC, have issued prescribing guidelines^{27,28}.

In addition, more than 130 **Congressional opioid bills** have been introduced since the 115th Congress began in January 2017²⁹.

SUPPORTING EVIDENCE

Prescribing Strategies

In both medical and dental settings, experts have considered and tested prescribing strategies to address the opioid crisis.

A number of published studies have detailed the effect of instituting an opioid prescribing guideline that highlights the use of non-opioid medications as the first line for pain relief^{14, 30}.

Studies have shown that for third molar extractions, non-opioid regimens are not only more effective, but also associated with a lower risk of serious side effects³¹.

Use of a medication prescribing guideline in an emergency room setting has been shown to produce a decrease in statewide opioid prescriptions¹⁴.

In both medical and dental environments, use of a guideline was associated with a significant decrease in opioid prescribing^{14, 30}. Central to these guidelines is: begin with pre-operative non-steroidal anti-inflammatory (NSAID) medication; administer a long-acting local anesthetic; and use of an NSAID with Acetaminophen, taken simultaneously, which has been shown to rival opioids in their analgesic effect. To treat acute breakthrough pain, consider a short-acting opioid analgesic at the lowest possible dose and for the shortest duration²⁴.

Additionally, advocating and requiring use of the state prescription drug monitoring program (PDMP) has resulted in observable decreases in opioid prescribing³². While there have been remarkable decreases in opioid deaths in some states³³, providers also felt that use of the PDMP improved opioid prescribing by decreasing prescription amounts and increased provider confidence when an opioid prescription was indicated³².

It has been found that an opioid prescribing protocol can be successful in decreasing the total number of opioid prescriptions and the number of tablets dispensed while appropriately addressing acute dental pain³⁴.

It is a dentist's responsibility to counsel patients about the dangers of opioids and provide education about the safe use of opioids when taken for acute postoperative pain.

Patients' awareness of opioid dependence has increased. Therefore, patients' acceptance of non-opioid medications has been favorable, and in one study more than 70 percent of dental extraction patients indicated that they would choose a non-opioid medication after the procedure³⁵.

WHAT WE CAN DO

Aim for pain reduction rather than elimination

Providers should not strive to make the patient pain-free, but educate patients that some discomfort is typical following dental procedures. Focusing on pain management and improving patient education will help decrease the potential for opioid addiction.

Educate and encourage safe disposal

Health care providers should educate themselves about the options for safe disposal of opioid medications. Providers should verbally review with the patient the importance of the use of the drug as directed and of the need for immediate disposal of unused medications.

Providing appropriate patient education, including brochures or other resources that emphasize this message, in addition to offering multiple options for disposal are important. Many communities offer take-back programs, which may include prescription drop boxes at police stations, city halls or local pharmacies³⁷. Web-based resources, such as DEA or FDA websites, are also available^{37, 38}.



Change our prescribing practices

As multiple studies^{14, 30, 34, 36} have shown, care providers in both medical and dental environments should use a pain management guideline for acute dental pain which prioritizes the use of non-opioid medications. Use of a prescribing guideline, such as the University of Minnesota School of Dentistry guidelines found on the following page, has shown a reduction of opioid prescriptions while providing appropriate pain control.

UNIVERSITY OF MINNESOTA SCHOOL OF DENTISTRY GUIDELINE

Acute postoperative pain opioid prescribing guidelines*

Guidelines based on *Prescribing Recommendations for the Treatment of Acute Pain in Dentistry*²⁹

If NSAIDS can be tolerated:

Pain Severity	Analgesic Recommendation
Mild	Ibuprofen (200-400 mg) q4-6 hours prn for pain
Mild to Moderate	Step 1: Ibuprofen (400-600 mg) q6 hours: fixed intervals for 24 hours Step 2: Ibuprofen (400 mg) q4-6 hours prn for pain
Moderate to Severe	Step 1: Ibuprofen (400-600 mg) with APAP (500 mg) q6 hours: fixed interval for 24 hours Step 2: Ibuprofen (400 mg) with APAP (500 mg) q6 hours prn for pain
Severe	Step 1: Ibuprofen (400-600 mg) with APAP (650 mg) with hydrocodone (10 mg) q6 hours: 3-day supply Step 2: Ibuprofen (400-600 mg) with APAP (500 mg) q6 hours: prn for pain

If NSAIDS are contraindicated:

Pain Severity	Analgesic Recommendation
Mild	APAP (650-1000 mg) q6 hours prn for pain
Moderate	Step 1: APAP (650 mg) with hydrocodone (10 mg) q6 hours: 3- day supply Step 2: APAP (650-1000 mg) q4-6 hours prn for pain
Severe	Step 1: APAP (650 mg) with hydrocodone (10 mg) q6 hours: 3-day supply Step 2: APAP (650-1000 mg) q6 hours: prn for pain

*** Additional considerations***

- Patients should be warned to avoid acetaminophen, or N-acetyl-p-aminophenol (APAP), in other medications. Maximum daily dose of APAP is 3,000 mg per day. To avoid potential APAP toxicity, a dentist should consider prescribing an opioid rescue medication containing ibuprofen.
- The maximum dose of ibuprofen is 2,400 mg per day. Higher maximal daily doses have been reported for osteoarthritis when under the direction of a physician.
- A decrease in postoperative pain severity has been demonstrated when a nonsteroidal anti-inflammatory drug is administered pre-emptively.
- Long-acting local anesthetics can delay onset and severity of postoperative pain.
- A perioperative corticosteroid (dexamethasone) may limit swelling and decrease postoperative discomfort after third-molar extractions.
- Acetaminophen with codeine should NOT be the first drug of choice in children less than 12 years of age.
- Acetaminophen in children <12: 10mg/kg/dose, q4-6 hr. maximum 90 mg/Kg/ 24 hours.
- Ibuprofen in children <12: 4-10mg/kg/dose q4-6 hours, maximum 40mg/Kg/24 hours.

*Used with permission from the University of Minnesota School of Dentistry

CONCLUSION

The opioid crisis remains a significant health problem, and while efforts are being made on many fronts, overdose deaths continue to rise. Cooperation from all health care providers is vital to stem the tide of opioid abuse.

We at Delta Dental of Minnesota are committed to supporting our providers and our members. We will continue to facilitate conversations with providers and employers, produce educational resources for our members, and offer evidence-based health information.

Research shows there is evidence that focused changes to prescribing practices by health care professionals can significantly decrease the number of opioid prescriptions, the supply of unused opioid medication, and the opportunity for illicit use. This means changing the way we think about prescribing opioids and the way we communicate to our patients about pain control.

Find additional resources at [DeltaDentalMN.org/opioids](https://www.DeltaDentalMN.org/opioids)

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DDMN.9.12.18