Northwestern Michigan College

A Multifaceted Response to the Opioid Epidemic

[redacted]

ENG220 Technical Writing

Ryan Bernstein

April 25, 2018

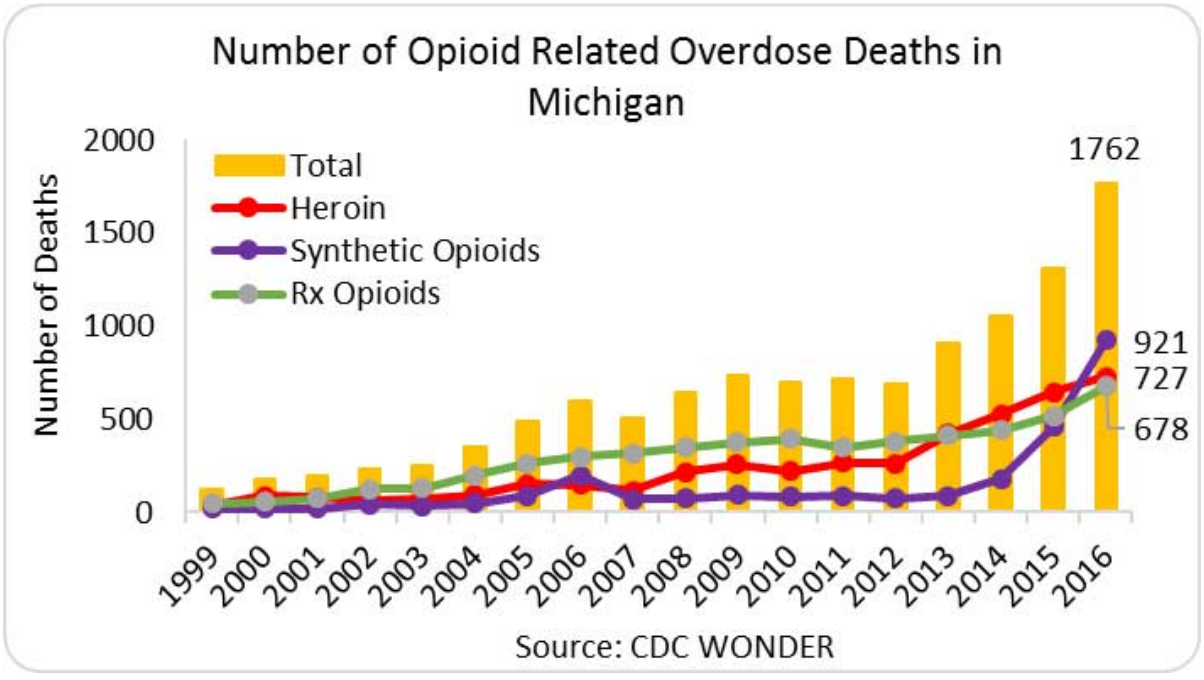
INTRODUCTION

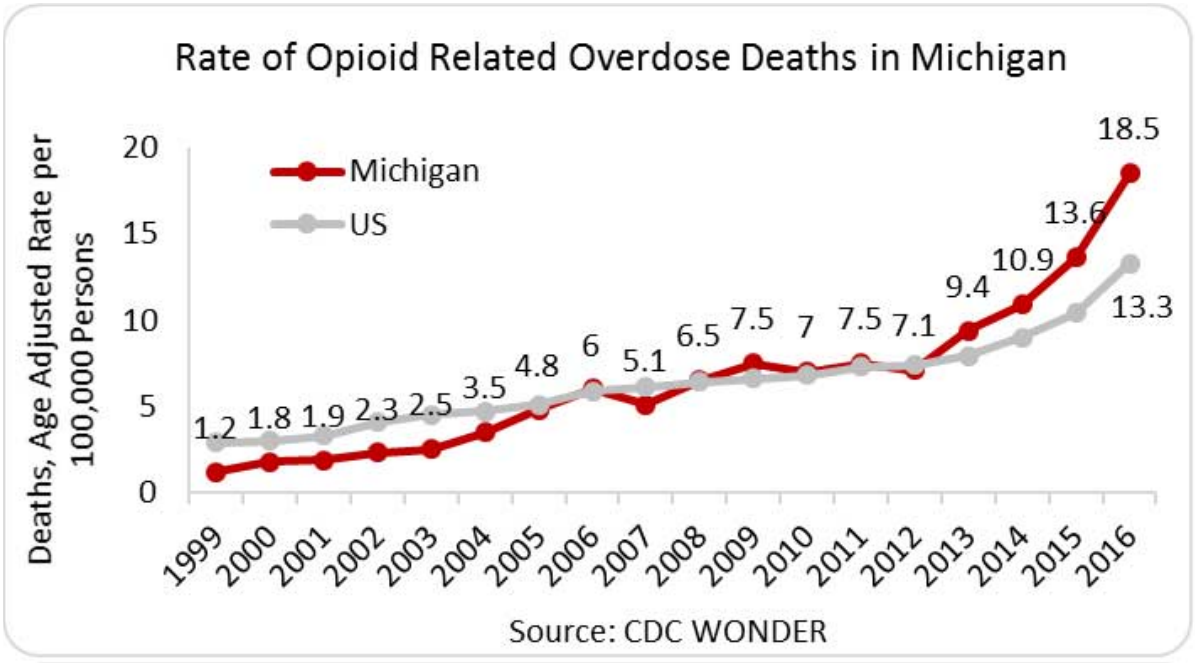
The opioid epidemic is not new. It began in the 90's after aggressive marketing campaigns by pharmaceutical companies claimed that not only did opioids not pose a risk for addiction or misuse, but they should actually be used as the *first* line of treatment for chronic pain. These egregiously false statements led to a massive increase of opioid prescriptions, which resulted in the tripling of drug overdose deaths in the U.S. from 1999 to 2015. The opioid epidemic has made headlines across the nation every year since it began almost 30 years ago, and efforts to solve this national public health crisis have been largely futile. However, each one of us as healthcare professionals have several opportunities to intervene to protect our patients from falling victim to an opioid overdose. In this report, I will explain what we know about the opioid epidemic so far, how physicians can be more responsible in their prescribing practices, as well as steps we can take as nurses to prevent both prescription and illicit drug misuse and overdose.

A STATISTICAL OVERVIEW OF THE OPIOID EPIDEMIC

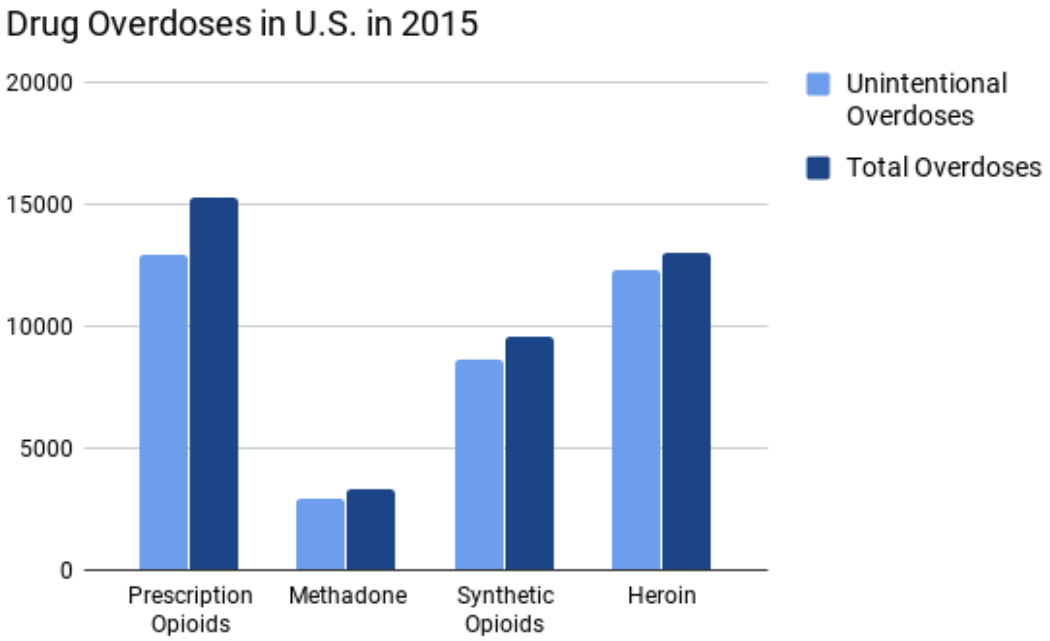
To put the severity of this public health crisis into perspective, I will explain the epidemic in numbers. By using statistics to illustrate this devastating issue, I hope to prove that this persistent epidemic does not discriminate, and we should take great measures to ensure we are adequately prepared to stop the statistics from rising further.

- During 2015, an estimated 12,462,000 persons aged 12 years or older in the U.S. misused prescription pain relievers (Annual Surveillance Report of Drug Related Risks and Outcomes, 2017).
- From July 2016 through September 2017, opioid overdoses increased 70% in the Midwestern region.
- Roughly 21% - 29% of patients that are prescribed opioids to treat chronic pain misuse them (Opioid Overdose Crisis, 2018).
- In 2016, opioid-related overdose deaths--- in Michigan reached 1,762. This occured at a rate of 18.5 deaths per 100,000 persons, which is higher than the national rate of 13.3 deaths per 100,000.



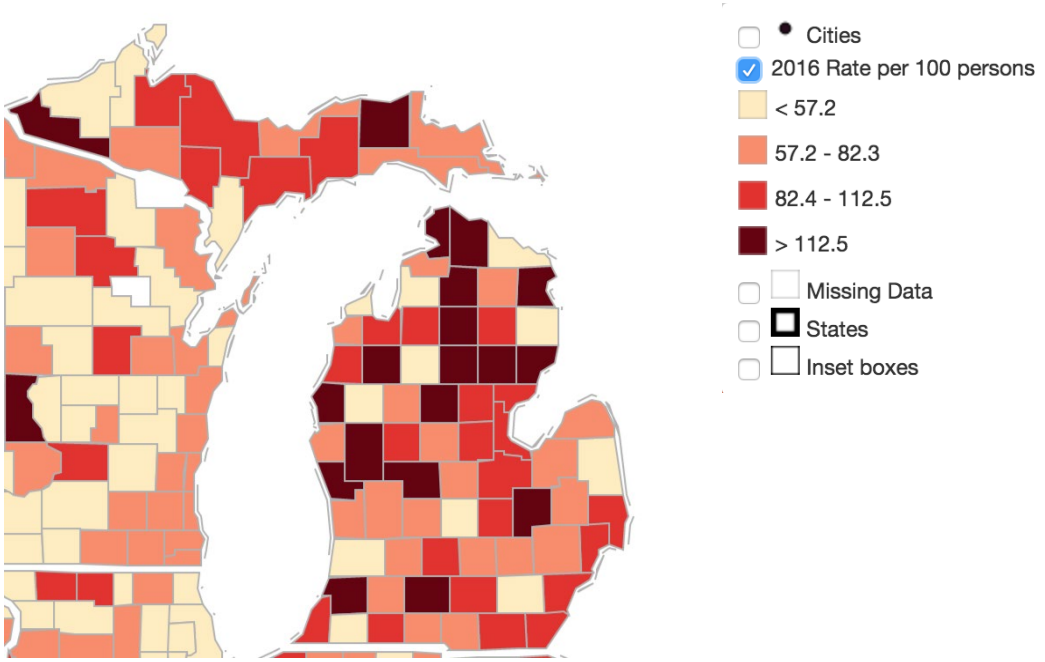


- In Michigan in 2015, 96.1 opioid prescriptions were written per 100 persons (9.5 million prescriptions). The national average was 70 opioid prescriptions per 100 persons in that same year (Michigan Opioid Summary, 2018).
- Drug overdose deaths reached a record high in 2015: 52,404. Opioids were involved in 63.1% of these deaths, with 12,989 deaths caused by heroin, 15,281 deaths caused by natural or semi-synthetic prescription opioids, 3,301 involving methadone, and 9,580 deaths caused by synthetic opioids (primarily prescription or illicit fentanyl) (Annual Surveillance Report of Drug Related Risks and Outcomes, 2017).



in 5 patients who had been prescribed opioids for 10 days became long-term users (Kolodny, et al., 2017).

- 72% of prescribed opioids that are used for treating outpatient postoperative pain go unused (Botsford, et al. 2018). This poses a risk for diversion or misuse later on.
- Figure A, courtesy of the CDC, shows the high prescribing rates in each Michigan county in 2016, with a rate per 100 persons.



THE EMERGENCE OF SYNTHETIC OPIOIDS

Knowing what you are dealing with is the first step towards combating this crisis. Synthetic opioids are beginning to gain popularity amongst drug dealers (See Appendix A) who mix them into heroin and other drugs to be able to sell a lower quantity with equally powerful effects, thereby increasing their profits. According to the Journal of the American Medical Association, "[s]ince 2010, overdose deaths involving predominantly illicit opioids (heroin, synthetic opioids, or both) have increased by more than 200%." We will review here the two most common synthetic opioids, so you can inform your patients about the dangers of purchasing drugs from the illicit market.

- **Carfentanil -** This drug is marketed under the name Wildnil, and is intended for the use of tranquilizing large animals. Because of its purpose, it is 10,000 times more potent than morphine, and 100 times more potent than fentanyl (Kim, et al., 2015). Symptoms, such as respiratory depression, disorientation, and sedation, present within minutes of exposure. The National Center on Addiction and Substance Abuse warns that, "a tiny dose of this drug – no larger than a grain of salt – can be fatal." Three things make this drug exceptionally dangerous: it is resistant to Naloxone, opioid users are usually unaware that the drugs they are buying are laced with Carfentanil, and its ability to be absorbed through the skin or accidentally inhaled makes it even more powerful and deadly.

- **Fentanyl -** Fentanyl is 80 times more potent than morphine. While this drug *is* available by prescription, it is also being illicitly manufactured in labs with the malicious intent of mixing it into other drugs. This allows drug dealers to sell smaller volumes of drugs with equally powerful effects (Osian, 2016). Unknowing consumers then face the danger of using a tampered with drug that is much more potent than they anticipate, which makes an overdose much more likely. The National Institute on Drug Abuse states, "[i]t is the illicitly manufactured versions [of fentanyl] that have been largely responsible for the tripling of overdose deaths related to synthetic opioids in just two years – from 3,105 in 2013 to 9,580 in 2015." Again, the risk of consuming a fentanyl-laced drug is only prevalent in the illicit drug market, so warning your patients about the potential impurity of street drugs is important for prevention.

HOW TO RESPONSIBLY PRESCRIBE CONTROLLED SUBSTANCES

Careless prescribing practices can be deadly. As nurses, it is important to be the patient's advocate and hold their physician accountable to making safe and responsible choices regarding their prescriptions. We should not think twice about speaking up if we have reservations about the decision to put a specific patient on powerful painkillers. In this section, I will list several ways that physicians can make sure they are making the right choices, so you can be a second set of eyes to assure decisions are being made in the patient's best interest.

- **Michigan Automated Prescription System (MAPS) -** MAPS should be utilized by physicians to make informed decisions prior to prescribing. Michigan revamped their MAPS system in April of 2017, according to the state of Michigan's website, with updates that greatly increase the system's efficiency. Making sure physicians are consistently employing this system will greatly reduce prescription drug abuse and diversion.
- **"Start low and go slow" -** The CDC recommends that the lowest effective dosage of immediate-release (NOT extended-release) opioids should be prescribed for acute pain, and physicians should prescribe no more than is absolutely needed. Three days or less is often sufficient. Prescribing more than needed increases the risk of misuse and diversion. The CDC claims that, "[b]etween 2006 and 2016, average days of supply increased from 13.3 to 18.1 days per prescription, an overall 35.7% increase." This careless habit of overprescribing by providers puts the patient in serious danger of long-term opioid dependence.
- **Urine drug testing** - Before prescribing opioids to those with chronic pain, clinicians should conduct a urine drug test to assess for prescribed substances and illicit drugs to prevent overprescribing. Opioids should not be used if benzodiazepines are identified, if possible.

  > "Regarding coprescription of opioids with benzodiazepines, epidemiologic studies suggest that concurrent use of benzodiazepines and opioids might put patients at greater risk for a potentially fatal overdose (See Figure B). Three studies of fatal overdose deaths found evidence of concurrent benzodiazepine use in 31%–61% of decedents (Dowell, et al., 2016)."

  Random drug screenings should be performed as long as the patient is taking opioids to assure they are taking the medicine as prescribed. However, according to Dr. Kevin T. McCauley's presentation at the 3rd Annual Clinical Ethics Conference at the Hagerty

Center, screenings should not be used in a threatening manner. He believes that screenings should be used to identify if additional treatment is needed, not to invoke fear or paranoia in the patient, which will promote non-compliance.

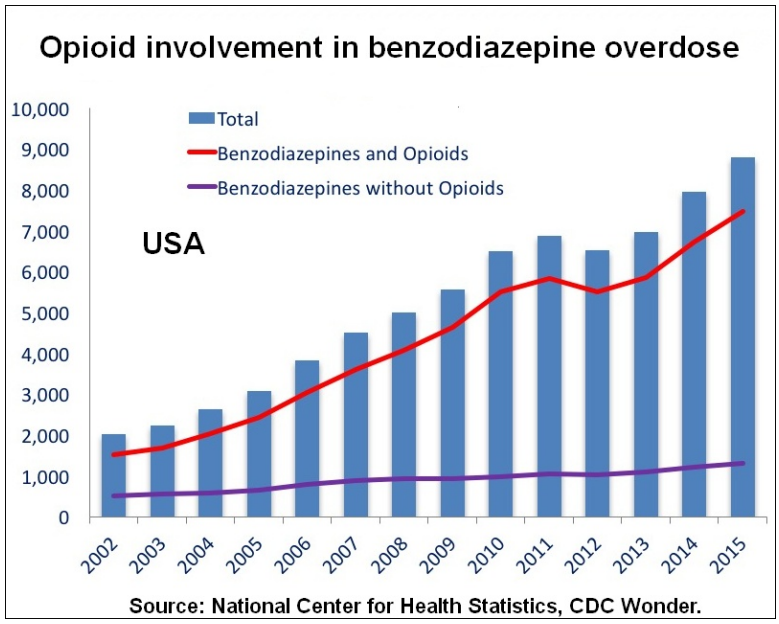


Figure B

- **<u>Consider other alternatives</u>** - Before initiating chronic opioid therapy, explore safer options for pain management such as cognitive behavioral therapy (CBT), physical therapy, exercise, or non-opioid analgesics. Kolodny and Friedan (2017) warn that, "[o]pioids are essential medicines to treat severe pain after surgery or serious injury, but they are too frequently prescribed for pain that could be treated with nonsteroidal anti-inflammatory medications (eg, molar extractions in adolescents)." Opioids should be a last resort, since physiological dependence and tolerance to opioids can begin occurring in as little as 1 week. As nurses, we can encourage our patients to set therapeutic goals, such as increasing their daily activity level, to create a well-balanced and integrated treatment plan that is not dependant solely on opioid use.
- **<u>Is it actually a mental issue?</u>** If a patient seeking opioids has a history of or is currently struggling with depression or other mental health problems, then it is a possibility that their psychological pain could be manifesting as physical pain. Patients should be screened for psychiatric disorders prior to initiating opioid therapy, as mental health problems can contribute to chronic pain and they may benefit more from mental health treatment instead (Dowell, et al., 2016). If you ever have reason to believe that your patient is receiving the wrong treatment, or would be better served by a different approach, then consult with their primary physician to collaborate on a plan that all parties are comfortable with.

STEPS NURSES CAN TAKE TO TACKLE THE OPIOID EPIDEMIC

It is crucial that patients who take prescription painkillers are thoroughly educated about the potential dangers of the drug they are using. Knowing how and when to properly intervene when you suspect your patient is abusing their prescription drugs can save lives as well. I will list several key points that should be discussed with your patient to ensure they are fully aware of the risks, and how they can be a responsible and safe opioid user.

- **Increase naloxone awareness**- While opioid users are likely already familiar with this overdose-reversal drug, it is important to notify them that this drug is more accessible than ever. Many pharmacies in Michigan, such as Walgreens, have made this antidote available to buy without a prescription. In 2015, 84.2% of drug overdose deaths were unintentional (Annual Surveillance Report of Drug Related Risks and Outcomes, 2017), meaning it can happen to anyone no matter how careful they are. Urge your opioid-using patients to purchase naloxone and carry it with them everywhere they go to treat an overdose quickly.
- **The slippery slope -** Patients must be aware that tapering off their opioids will not be easy. They are much more susceptible, as prescription painkiller users, to resort to heroin use when they no longer have access to their own prescription opioids. According to The National Institute on Drug Abuse, 80% of heroin users first misuse prescription opioids. It is inevitable that, once access to prescription drugs is no longer an option, opioid abusers will turn to the next best and most accessible substance: heroin. Heroin comes with several dangerous, and even fatal, risks (such as the possibility of contracting HIV) that should be greatly stressed during discussions with your patients so they understand the importance of seeking addiction treatment before they resort to illicit opioids to continue feeding their addiction.
- **Safe storage/disposal -** To prevent drug diversion, accidental exposure or overdose, or drug theft, you should emphasize to your patients the importance of safely storing their prescription drugs, especially opioids. The Safe Homes Coalition (SHC), a nonprofit in San Diego that raises awareness about the proper use, storage and disposal of prescription medication, recommends several different ways to responsibly store medications, that you should encourage your patients to implement in their home.
    a. Keep stronger medicines separate from common household medications, like ibuprofen, to prevent accidental consumption.
    b. Medicines should stay in their original bottle or container, and different medications should never be mixed in the same bottle to prevent confusion.
    c. Treat medications like you would other valuables, which means that they should be concealed when guests or visitors are in your home.
    d. The SHC recommends installing a lock box in your medicine cabinet for maximum security.

  In addition to safe storage, drugs should be properly disposed of as soon as they are no longer needed. Many pharmacies and law enforcement agencies will gladly take your unused opioids and properly dispose of them, and special take-back events are an opportunity to safely get rid of any unused drugs (Safe Drug Disposal, 2017). Michigan-open.org has a great map that identifies many opioid drop-off locations.
- **Medication Assisted Treatment -** Talk to your patients who you know, or suspect, are struggling with addiction about medication assisted treatment (MAT). Patients who are seeking help are likely unaware of all the options that are available to them. Methadone,

buprenorphine, and naltrexone are drugs that help to suppress withdrawal symptoms and relieve cravings which helps patients avoid drug seeking, helps them be more receptive to behavioral treatment, and improves their social functioning (Treatment Approaches for Drug Addiction, 2018). On May 26, 2016, The FDA released a statement approving the first buprenorphine implant for the treatment of opioid addiction. According to the FDA, "[p]robuphine is designed to provide a constant, low-level dose of buprenorphine for six months in patients who are already stable on low-to-moderate doses of other forms of buprenorphine." Expanding the use and availability of MAT options is a top priority in the U.S. Department of Health and Human Services' Opioid Initiative, which means you can help by actively encouraging and advocating for the use of these revolutionary and effective drugs when appropriate. In fact, opioid overdose deaths decreased 79% in France just six years after the widespread prescribing of buprenorphine began (Kolodny, et al., 2017).

- **Being mindful of your own behavior**- It is especially imperative to remain as empathetic, non-judgemental, non-threatening, and unbiased as possible during your interactions with your opioid using patients. In order for them to open up and be willing to accept treatment, patients must feel safe and establish a deep trust with their provider. Truly listening to the patient and making them feel understood and heard encourages them to be more receptive to treatment. Addicts often carry an immense amount of shame with their condition, and are afraid of legal repercussions and the societal backlash they may experience as a result of the stigma surrounding addiction. For these reasons, having a meaningful and compassionate conversation in itself can be an excellent start on the road to recovery. Empathy is important because it "communicates acceptance, which facilitates change. (Stephens, 2018)" Tips for expressing empathy include maintaining good eye contact, displaying responsive facial expressions, avoiding passing judgement or appearing doubtful, and using verbal and nonverbal "encouragers".
- **FRAMES** - The FRAMES model, introduced by Umeika Stephens at the 3rd Annual Clinical Ethics Conference at the Hagerty Center, can be used as a guide to interacting with opioid using patients.
  Feedback should be given to the individual regarding potential risks and impairments that accompany drug use.
  Responsibility for change is placed on the participant.
  Advice to change, and answers to any questions, is to be given by the healthcare provider.
  Menu of alternative options is offered to the patient, but no option should be forced upon the patient.
  Empathetic style is used to present the information.
  Self-efficacy or empowerment is invoked in the patient.

CONCLUSION

It is our professional obligation as nurses to be an advocate, confidant, and educator for our patients, especially those struggling with addiction who need us the most. In the midst of this brutal public health crisis, we must stay up to date with the newest information and treatment options to keep our patients as safe as possible. While prevention is preferred, we must make it our duty to warn our patients using opioids of the dangers of both prescription and illicit

painkillers, and make them aware of all available treatment options to combat addiction. In addition, we must work closely with physicians and express any reasonable doubt we have regarding their choice to prescribe opioids. All other options must be exhausted before resorting to the use of opioids for pain, and even then extreme caution must be taken to do the least possible damage to the patient. I hope this report strengthened your knowledge of synthetic opioids, as well as safe and responsible prescribing habits and guidelines that you can hold providers accountable to. I encourage you all to take the information you learned today back to your staff meetings to collaborate with your colleagues on ways you can address this issue in your own communities. Making opioid education a part of annual training is something you can suggest as well. There are many ways to intervene in this crisis - don't let your patient be another statistic.

Works Cited

Annual Surveillance Report of Drug Related Risks and Outcomes (2017). In *Centers for Disease Control and Prevention*. Retrieved April 10, 2018, from https://www.cdc.gov/drugoverdose/pdf/pubs/2017-cdc-drug-surveillance-report.pdf

Botsford, Julie, and Oster, Jennilyn. "The Opioid Crisis: The Role You Play ." Clinical Ethics Conference. Clinical Ethics Conference, 20 Apr. 2018, Traverse City, Hagerty Center.

Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain — United States, 2016. MMWR Recomm Rep 2016;65(No. RR-1):1–49. DOI: http://dx.doi.org/10.15585/mmwr.rr6501e1.

FDA approves first buprenorphine implant for treatment of opioid dependence (2016, May 26). In *U.S. Food and Drug Administration*. Retrieved April 10, 2018, from https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm503719.htm

Kim S, Thiessen PA, Bolton EE, Chen J, Fu G, Gindulyte A, Han L, He J, He S, Shoemaker BA, Wang J, Yu B, Zhang J, Bryant SH. PubChem Substance and Compound databases. Nucleic Acids Res. 2016 Jan 4; 44(D1):D1202-13. Epub 2015 Sep 22 [PubMed PMID: 26400175] doi: 10.1093/nar/gkv951.

Kolodny, MD, A., & Frieden, MD, T. (2017, October 24). Ten Steps the Federal Government Should Take Now to Reverse the Opioid Addiction Epidemic. Journal of the American Medical Association, 318(16). doi:10.1001/jama.2017.14567

McCauley, Kevin T. "The Brain and Recovery: An Update on the Neuroscience of Addiction." Clinical Ethics Conference. Clinical Ethics Conference, 20 Apr. 2018, Traverse City, Hagerty Center.

Michigan Launches New Prescription Drug Monitoring Program to Help Prevent Opioid Abuse (2017, April 11). In *Michigan.gov*. Retrieved April 10, 2018, from http://www.michigan.gov/som/0,4669,7-192-29943_34759-409144--,00.html

Michigan Opioid Summary (2018, February). In *National Institute on Drug Abuse*. Retrieved April 10, 2018, from https://www.drugabuse.gov/drugs-abuse/opioids/ opioid-summaries-by-state/michigan-opioid-summary

Opioid Overdose Crisis (2018, March). In *National Institute on Drug Abuse*. Retrieved April 10, 2018, from https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis

Osian, N. (2016, November 1). Carfentanil and the Danger of New Synthetic Opioids. In *The National Center on Addiction and Substance Abuse*. Retrieved April 10, 2018, from https://www.centeronaddiction.org/the-buzz-blog/carfentanil-and-danger-new-synthetic-opioids

Safe Drug Disposal (2017). In Opioid Prescribing Engagement Network. Retrieved April 20, 2018, from http://michigan-open.org/safe-drug-disposal/

Stephens, Umeika. “The Witching Hours: Caring for Acute Substance Use Withdrawal.” Clinical Ethics Conference. Clinical Ethics Conference, 20 Apr. 2018, Traverse City, Hagerty Center.

Treatment Approaches for Drug Addiction (2018, January). In *National Institute on Drug Abuse*. Retrieved April 10, 2018, from https://www.drugabuse.gov/publications/drugfacts/treatment-approaches-drug-addiction

Walgreens Makes Life Saving Naloxone Available Without Prescription in Michigan Pharmacies (2017, June 27). In *Walgreens*. Retrieved April 10, 2018, from https://news.walgreens.com /404.cfm?404; http://news.walgreens.com:80/press-releases/general-news/walgreens-makes-life-saving-naloxone-available-without-prescription-in-michigan-

Pharmacies.htm?404;http:

3 steps for physicians to boost safe storage, disposal of opioids (2017, April 24). In *American Medical Association*. Retrieved April 14, 2018, from https://wire.ama-assn.org/delivering-care/3-steps-physicians-boost-safe-storage-disposal-opioids