



The greatest threat of gabapentin occurs when used with a prescription opioid.



Gabapentin prescriptions increased dramatically from 39 million prescriptions in 2012 to 64 million prescriptions in 2016, making gabapentin the 10th most prescribed medication in the United States.¹



In 2016, 35 Utahns died from an overdose where both gabapentin and an prescription opioid were present.



Females accounted for 64% of the overdose deaths involving gabapentin and a prescription opioid from 2014-2016, in Utah.



Gabapentin and prescription opioid overdose death rates were highest among Utahns aged 45-54 from 2014-2016.

Background

Gabapentin is an anticonvulsant drug commonly used for the treatment of chronic pain.¹ Gabapentin is widely perceived as being a safe alternative to opioids, because of the supposed non-abusive potential.² When gabapentin is taken with other medications such as opioids, muscle relaxants or anxiety medication, it enhances the side effects in the central nervous system, causing euphoric effects.² Studies show that increasing numbers of patients are self-administering higher than recommended doses to achieve euphoric highs.³ The greatest threat of gabapentin occurs when used with an opioid, because both drugs have been identified and shown to suppress breathing, which can be fatal.² If gabapentin is taken with an opioid there is a 49% higher risk of dying.⁴ Since gabapentin and opioids are commonly prescribed for chronic pain, co-prescription may occur. It appears there has been an increase of prescribing gabapentin in inpatient and outpatient settings to provide a safer opioid alternative, however when gabapentin is co-prescribed with an opioid it increases the risk of fatality.

National Statistics

- Gabapentin prescriptions have increased dramatically from 39 million prescriptions in the United States in 2012 to 64 million prescriptions in 2016, making gabapentin the 10th most prescribed medication in the United States.¹
- In 2016, 56% of gabapentin users were taking opioids, 27% of gabapentin users were taking opioids, muscle relaxants or anxiety medication and 8.6% of gabapentin users were also taking illicit substances.¹
- In 2016, 1% of the U.S population was misusing gabapentin and 22% of opioid misusers were also misusing gabapentin.¹
- 1 in every 25 adults in the U.S regularly uses gabapentin and 1 in every 5 opioid users takes gabapentin illicitly.⁵

Utah Statistics

Figure 1 shows the number of overdose deaths with gabapentin and a prescription opioid in Utah by year. Regular screenings for overdose deaths of gabapentin and opioids started to occur in 2012 and 2013 in the state of Utah. However, in Utah, gabapentin is only screened for in cases where there is evidence to suggest it played a role in the overdose. Therefore, the count of gabapentin-related overdoses for these years may be underestimates. In 2013, there were fewer than five fatal opioid overdoses in which gabapentin also contributed to the death. In 2015, there were 42 overdose deaths and in 2016 there were 35 overdose deaths with both gabapentin and an opioid.

Figure 1: Number of Overdose Deaths with Gabapentin and a Prescription Opioid by Year, Utah 2012-2016⁵

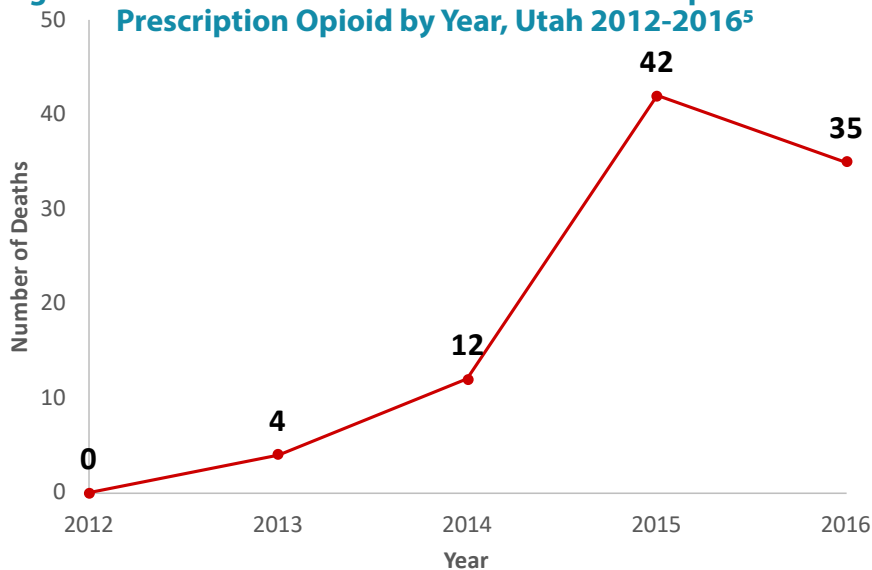


Figure 2 shows the percentage of overdose deaths with gabapentin and a prescription opioid by sex. During 2014-2016, females accounted for 64% of the overdose deaths involving gabapentin and a prescription opioid in Utah.

Figure 2: Percentage of Overdose Deaths with Gabapentin and a Prescription Opioid by Sex, Utah, 2014-2016⁵

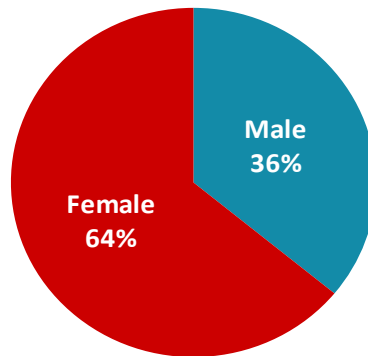
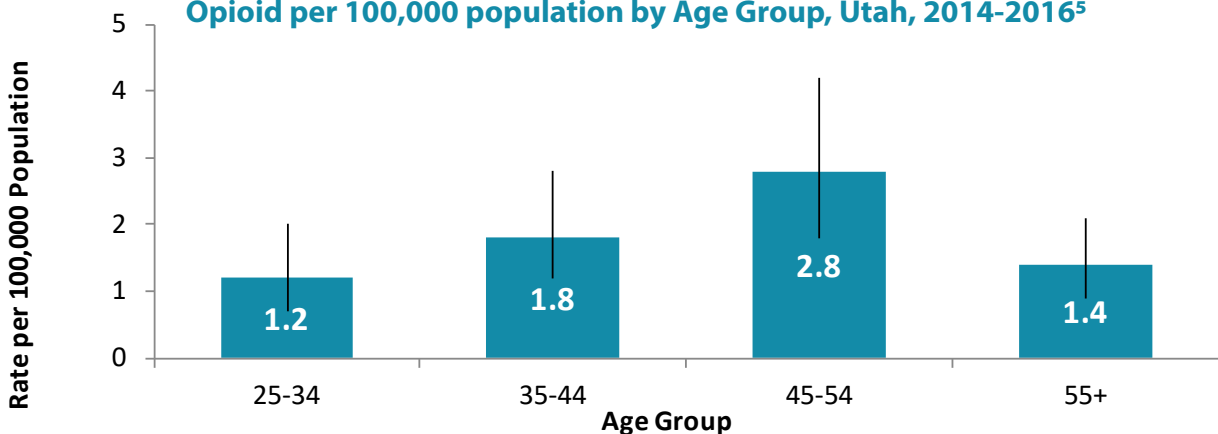


Figure 3 shows the rate of overdose deaths with gabapentin and a prescription opioid per 100,000 population by age group in Utah. From 2014-2016, gabapentin and prescription opioid overdose death rates were highest among Utahns aged 45-54.

Figure 3: Rate of Overdose Deaths with Gabapentin and a Prescription Opioid per 100,000 population by Age Group, Utah, 2014-2016⁵



Opioid Fatality Review Committee

In response to the growing opioid epidemic, the Utah Department of Health (UDOH) Violence and Injury Prevention Program (VIPP) established the Opioid Overdose Fatality Review Committee (OFRC). The primary purpose of the OFRC is to establish effective strategies for preventing and responding to opioid overdose. The committee is made up of representatives of many agencies such as the Utah Office of the Medical Examiner, Utah Department of Corrections, Attorney General's Office, Utah Division of Occupational and Professional Licensing, Utah Department of Human Services, University of Utah Medical Center, and Utah Poison Control Center. The OFRC meets regularly to review opioid overdose deaths and make recommendations to prevent future deaths.

Recommendations

The Opioid Fatality Review Committee examined overdose deaths in Utah involving opioids and gabapentin in the spring of 2018. Based on a review of the gabapentin and opioid overdose deaths, the following specific to gabapentin recommendations were made:

- Increase clinical research to better understand the prevalence of gabapentin misuse.
- Survey end users to understand gabapentin use, trends, myths and prevalence.
- Educate physicians on the increased prevalence of gabapentin misuse and the risk of co-prescribing gabapentin and opioids.

Other recommendations related to opioid overdose deaths include:

- Encourage physicians to co-prescribe naloxone with every opioid prescription.
- Increase public education and outreach regarding opioid overdose prevention and response, including signs and symptoms of opioid overdose, the dangers of normalizing these signs and symptoms, and naloxone use/access, especially in rural areas.
- Establish structured processes between mental health authorities and prison/jail system to ensure inmates with substance use disorder have continuity of care and transition successfully from incarceration to treatment.
- Educate prison/jail inmates and families on overdose prevention and response including guidance upon discharge.
- Increase funding and access to substance use disorder and mental health treatment options, especially in rural areas.
- Conduct mental health and substance abuse screening prior to surgery or other medical procedures and provide follow up care for at-risk patients.
- Increase treatment center education and outreach regarding opioid overdose prevention and response, including signs and symptoms of opioid overdose and naloxone use/access.
- Develop and implement universal screening tool to identify, reduce, and prevent problematic use, abuse, and dependence on illicit and prescription opioids.
- Offer support and resources for people who use drugs, as well as their families/friends, including grief support.

References

1. Gomes T, Juurlink DN, Antoniou T, Mamdani MM, Paterson JM, Brink WVD. Gabapentin, opioids, and the risk of opioid-related death: A population-based nested case-control study. Retrieved from <http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1002396>.
2. Goodman CW, Brett AS. Gabapentin and pregabalin for pain – is increased prescribing a cause for concern? *New England Journal of Medicine*. 2017 Aug 3;377(5):411-414.
3. Evoy KE, Morison MD, Saklad SR. Abuse and Misuse of Pregabalin and Gabapentin Drugs. 2017 Mar;77(4):403-426.
4. Kapil V, Green JL, Le Lait MC, Wood DM, Dargan PI. Misuse of the gammaaminobutyric acid analogues baclofen, gabapentin and pregabalin in the UK. *British Journal of Clinical Pharmacology*. 2014 July;78(1):190-191.
5. Mack A. Examination of the evidence for off-label use of gabapentin. *Journal of Managed Care Pharmacy*. 2003;9(6):559-56.