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## Gabapentin Abuse

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Gabapentin Abuse

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PHRE 5223: Drugs of Abuse

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The national opioid crisis is deemed to be an uphill battle by many Americans today. According to the National Survey on Drug Use and Health (NSDUH), it is reported that 19.7 million American adults, ages 12 and older, battled a substance use disorder in 2017<sup>1</sup>. Like many chronic illnesses such as diabetes, high blood pressure, and asthma/COPD, opioid addiction can be managed and treated.

It is important that we are conscious of this national crisis because it not only affects our public health, it adversely affects the social and economic side as well. The burden of drug abuse affects everyone including families and friends in many ways such as unwarranted violence, tensions, and conflicts. Infants born to opioid dependent mothers are at an increased risk in cognitive development delay also known as neonatal abstinence syndrome<sup>2</sup>. Additionally, injection of opioids can further spread infectious diseases such as HIV and hepatitis C; increasing healthcare visits and maintenance medication costs every year.

As the regulations for controlled substances are becoming stricter in order to reduce its misuse, addicts search for other prescription drugs that can potentially be abused. Among them is gabapentin (Neurontin®), an FDA approved anticonvulsant medication used to treat epilepsy and neuropathy<sup>2</sup>. Gabapentin is a structural analogue of the neurotransmitter GABA in our body; however, it doesn't bind to GABA receptors. Instead, it binds to the alpha-2-delta-1 subunit of a calcium ion channel leading to the reduction of calcium efflux, reducing the release of excitatory neurotransmitter into the synapse<sup>3</sup>.

Though gabapentin itself is not a controlled substance in Florida, it is a schedule 5 in Kentucky, Virginia, West Virginia, Tennessee, and Michigan<sup>4</sup>. In many instances,

gabapentin is prescribed in lieu of opioids due to its trivial potential for addiction and abuse. In 2017, it was the 10<sup>th</sup> most commonly prescribed medication with 68 million prescriptions dispensed<sup>4</sup>.

The misuse of gabapentin can be easily overlooked since it's not a controlled substance and is easily dispensed in large quantities at a time. When taken in addition to opioids such as hydrocodone and oxycodone, gabapentin further amplifies the euphoria sensation of the opioids such as sedation, relaxation, and dissociation<sup>5</sup>. In 2001, the first reports of gabapentin abuse from correctional institutes in Florida increased our awareness of its potential. Inmates were requesting early refills and were engaging in other drug seeking behaviors. It was reported that four out of five inmates with a previous history of cocaine abuse admitted to crushing and snorting gabapentin. They even stated that the high was comparable to cocaine itself <sup>6</sup>.

Though the use of gabapentin in addition to other opioids can be a dangerous and deadly combination, it has been shown that gabapentin alone can produce a sense of being "high". Gabapentin users in recovery have reported that stronger doses such as 800 mg can produce a euphoric- like high but doesn't show up on drug screens as a drug of abuse<sup>7</sup>. With a loophole like this, drug abusers can still feed their addiction unnoticed. As an off-label usage, gabapentin can be prescribed in treating substance addiction such as alcohol. During the detoxing phase, gabapentin eases withdrawal symptoms such as anxiety, tremors, and agitation<sup>5</sup>.

As mentioned previously, opioid addiction is an uphill battle that requires a lot of effort in order to rectify to its proper use. Given the misuse of gabapentin, I believe that we should push for it to become a scheduled 5 drug alongside the other 5 states. With

gabapentin being a scheduled 5 drug due to its potential for abuse, we can reduce its misuse and/or diversion. Though this may not solve the opioid crisis at once, but it will help alleviate the national statistic of drug abuse overall in reducing the number of drug related overdoses and deaths each year.

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