

Neurontin: Over-Hyped and Underwhelming



By Josh Bloom — December 26, 2017



Neurontin for pain?

When a drug receives FDA approval for a particular indication a physician can then legally prescribe that drug for other conditions **(1)**. This is called "off-label use" and it is very common. About half of the prescriptions that are written are for different reasons than those for which the drug was approved. [A few examples](#) ^[1]:

- Prazosin, a blood pressure drug is also used for PTSD
- Seroquel was first approved for schizophrenia but is now used off-label for depression, bipolar disorders, and insomnia.
- Propranolol, a drug for hypertension and heart conditions is also used for stage fright. (Tried it once. Worked pretty well.)

But perhaps the king of off-label drugs is Pfizer's Neurontin (generic name gabapentin). Although its original approval in 1993 was for epilepsy, the drug is used, although not approved, for many other indications. Perhaps too many.

- Restless leg syndrome
- Hot flashes
- Insomnia
- Mood stabilization
- Anxiety
- **Post-herpetic neuralgia**
- **Neuropathic pain**
- **General pain**

Let's focus on the last three, since we are in an era of opiate denial, and seeing one terrible recommendation after another for treating pain using "alternative" drugs and "treatments." This

has forced physicians to prescribe drugs that were never intended to be used for pain first-line therapies in the first place. Like Neurontin.

Neuropathic pain is defined as pain resulting from nerve injury. It can be severe and disabling. Since Neurontin is one of the few non-opioid options for physicians who are no longer willing to no prescribe the strong painkillers, it's fair to ask whether the drug is any good for different types of pain. Let's take a look at some of the evidence to support its use. [A 2017 Cochrane review](#) [2] does not paint a glowing picture.

P.J. Wiffen and colleagues searched for clinical trials in which Neurontin was used to treat neuropathic pain, mostly in patients with post-herpetic neuralgia following a shingles outbreak, or patients who were diabetic and suffered nerve damage from the disease, The group identified 37 studies that met the criteria for inclusion in the review. The trials, which included more than 5,900 participants, ranged in duration from 4-12 weeks.

For people who had pain after a shingles outbreak Neurontin reduced pain by at least half for 30% of the patients. If 30% doesn't sound so wonderful, it's actually worse than that. That's because 20% of the people who received placebo also get relief, meaning that **one person in 10 was actually helped by the drug**. And *this* is the wonder drug that is supposed to get us off opioids?

Judges?



The reviewers concluded:

"Over half of those treated with gabapentin will not have worthwhile pain relief but may experience adverse events...The evidence was mostly of moderate quality. This means that the research provides a good indication of the likely effect.

In other words, there is reasonably good evidence that Neurontin will fail to deliver adequate pain relief to more than half the people who take it while at the same time causing side effects. How bad? See what Dr. Tom Kline has to say below.

How well does Neurontin do for post-operative pain? According to a [2010 Cochrane review](#) [3], not so great. The drug does provide some relief to some people, which was a surprise to the authors, but not much.

Gabapentin 250 mg is statistically superior to placebo in the treatment of established acute postoperative pain... [but is] of limited clinical value and inferior to commonly used analgesics. Gabapentin 250 mg is not clinically useful as a stand-alone analgesic in established acute postoperative pain, though this is probably the first demonstration of analgesic effect of an antiepileptic in established acute pain."

S Straube, et. al., May 12, 2010

In other words, 250 mg of Neurontin showed statistically significant but poor efficacy, less so than OTC analgesics, which usually do a damn poor job of managing pain after surgery. Well, that's just marvelous. Neurontin works, but less well than Advil and Tylenol. If I'm in post-op in pain and someone brings me a Neurontin pill I will somehow summon up the energy to throw it into the hall, and maybe even stomp on the damn thing if I'm up to it.

So, Neurontin is a terrible drug for neuropathic and postoperative pain with a bunch of side effects. How does it do against chronic pain? The answer here is less clear. A [2017 Cochrane review](#) [3], which was supposed to review whether Neurontin was an effective treatment for adults with fibromyalgia got an "incomplete" grade. This is because only a single study of 150 people qualified for inclusion in the review. The study consisted of the comparison of two doses, 1200 and 2400 mg/day of gabapentin to placebo over a 12 week period. The quality of the evidence is considered to be "very low quality" because only one small study was evaluated, and there were also incomplete data **(2)**. These limitations should be kept in mind when considering the following findings:

"There is no good evidence to support or contradict the suggestion that gabapentin at daily doses of 1200 to 2400 mg reduces pain in fibromyalgia... At the end of

week 12, 5 in 10 people taking gabapentin and 3 in 10 taking the placebo had their pain reduced by at least one third. A report of feeling better to any degree was reported by 9 in 10 taking gabapentin and 5 in 10 taking placebo. About 2 in 10 people taking gabapentin stopped taking the medicine because of side effects, compared with 1 in 10 taking the placebo. The study did not report the number of people with serious side effects but did report that there were no deaths."

TE Cooper, et.at., January 3, 2017

Poor evidence or not, that sure doesn't sound so hot, so I spoke with Thomas F. Kline, MD. Ph.D., a chronic disease specialist in Raleigh, North Carolina. Kline is not shy about revealing his opinion - .that opioid pain medicine restrictions are both ineffective and dangerous.

'The drug de jour in the opioid avoidance circles is Neurontin, which is addictive, and works by numbing the brain. Many people who take the drug report feeling like zombies. It is an anti-seizure drug that can paradoxically cause seizures upon discontinuation. Neurontin is not approved by the FDA for general pain and has not been shown to work for most pain patients.'

Thomas Kline, M.D.

Next time your doctor tries to give you Neurontin for any kind of pain, perhaps you should bring this article with you.

NOTES:

- (1) But if something goes wrong the physician has an increased legal risk.
- (2) The study did not report the number of people with pain reduced by **half** at the end of week 12, only one-third. Cochrane cited this as a flaw in the study.

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[1] <http://www.pharmacytimes.com/contributor/timothy-o-shea/2016/01/10-surprising-off-label-uses-for-prescription-medications>

[2] http://www.cochrane.org/CD007938/SYMPT_gabapentin-chronic-neuropathic-pain-adults

[3] http://www.cochrane.org/CD008183/SYMPT_gabapentin-acute-postoperative-pain-adults