

Gabapentinoids: Use and Misuse

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Pregabalin and Gabapentin were introduced as anti-seizure drugs. However, these drugs are currently used more commonly for other indications, including neuropathic pain, radiculopathy, fibromyalgia, diabetic neuropathy, nerve compression syndromes, etc. Evidence of the efficacy of these drugs for these indications is conflicting and often lacking¹⁴. The FDA-approved indications of pregabalin are neuropathic pain associated with diabetic peripheral neuropathy, post-herpetic neuralgia, and partial onset seizures in patients four years of age and older, fibromyalgia, and neuropathic pain associated with spinal cord injury. The FDA-approved indications of Gabapentin include:

- Post-herpetic neuralgia in adults.
- Partial onset seizures in adults.
- Pediatric patients three years and older with epilepsy.

Use for Radicular Pain and Low Back Pain: Pregabalin was ineffective in treating acute and chronic sciatica, even though adverse effects were more common in the treatment group, indicating that these drugs may cause harm rather than benefit in sciatica(5). In other trials, Gabapentin was found ineffective or marginally helpful in treating low back pain and radiculopathy pain^{1,6}.

Acute herpes zoster: Gabapentin and pregabalin have been licensed by the FDA for the treatment of post-herpetic neuralgia, defined as neuropathic pain lasting at least three months after acute herpes zoster. However, in two placebo-controlled trials, the efficacy of these drugs for acute zoster pain was found to be inadequate^{3,4}.

Use in carpal tunnel syndrome: A placebo-controlled trial

has failed to show any benefit of Gabapentin in pain associated with carpal tunnel syndrome over eight weeks².

Use in treating painful diabetic neuropathy: The evidence is inconsistent for gabapentin treatment of painful diabetic neuropathy. Two of the five trials (including the most extensive trial) found no benefit, while the other two showed only a 1-point improvement on a 0 to 10 scale compared to the placebo^{7,8}. According to a Cochrane analysis, gabapentin medication would be required for around six individuals with painful diabetic neuropathy to produce significant benefits for one patient⁹.

Significant Adverse effects: CNS and respiratory depression, hypersensitivity reactions including DRESS, SJS, and TEN, peripheral oedema, suicidal ideation and tendencies, visual disturbances, weight gain, substance abuse, and euphoria have been reported as significant side effects. The incidence of adverse effects varies in the literature, with some reporting dizziness in 1 out of every three patients⁹. Misuse of gabapentinoids is on the rise, and it's most likely linked to the opioid crisis. It has been reported in as many as 1% of the general population, with a far higher frequency among individuals with opioid use disorders¹⁰. This is concerning, especially when taking opioids and gabapentinoids simultaneously, which has been linked to an increased risk of opioid-related death¹¹.

Practice points

- Gabapentinoids are an important class of drugs

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effective for treating certain clinical conditions for which they have been approved.

- The perceived benefit of these drugs in various "off-label" indications is not corroborated with evidence and, in some cases, can be ascribed to improper and sometimes criminal misinformation by pharma companies (12).
- These drugs have been linked to several drug-related deaths and have been implicated in misuse and dependence (13, 14). Patients should be informed about the advantages and disadvantages of using gabapentinoids.

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