Opioid Usage Among Patients With Diabetic Peripheral Neuropathy (DPN) – US Claims Database Analysis

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BACKGROUND

The International Association for the Study of Pain defines peripheral neuropathic pain in patients suffering from diabetes as "pain unrelenting and a direct consequence of abnormalities in the peripheral somatosensory system in people with diabetes."¹

First-line therapies include tricyclic antidepressants, serotonin-norepinephrine reuptake inhibitors (like duloxetine), and anticonvulsants (like pregabalin and gabapentin). However, a majority of patients using these treatments experience side effects.¹ Some common side effects include dizziness, somnolence, nausea, headache, blurred vision, and dry mouth.

There is clinical evidence that supports the use of opioids in the management of diabetic peripheral neuropathy (DPN).²

METHODS

Patients aged ≥18 years with a diagnosis of DPN between January 1, 2009 and December 31, 2009 were included in the study. The database initially contained 56,244 patients identified with DPN. Of these patients, about half were in the 45-64 years age group; mean age was 64.26 (standard deviation 31.31) years. 52% of the patients were male and 27% of the patients had a pain co-diagnosis, the most common being back and neck pain (13.5% among ON, 16.9% among OE).

Co-diagnoses

- 49.6% of patients had ≥1 pain co-diagnosis (Figure 2).
- OE patients were more likely to have a pain-related co-diagnosis (33.1% among OE in the 12 months following the Baseline Date versus 31.3% among ON in the 12 months prior to the Baseline Date).

Choice of Treatment Regimens

- 50% (n=33,333) of the sample were exposed to a DPN-related treatment during the 12-month follow-up. The corresponding percentages for ON and OE patients were 47% and 51%, respectively.
- At baseline, 64% of these patients were not being treated for pain (31% for ON vs 53% for OE).
- While the number of treated patients increased by 25% among ON-treated patients in the month after the Baseline Date, it increased by 29% in OE-treated patients during that time period.
- 65% of ON-treated patients were exposed to opioids, primarily Schedule II OP2s.
- OP2s were more likely to be used orally than ON patients (65% in ON vs 50% in OE patients). This was true both for Schedule II opioids and Schedule III/IV opioids.
- Antidepressants were the dominant drug regimen in ON patients, while Schedule III/IV opioids (anxiolytics and in combination) were most often prescribed to OE patients (Figure 3).

Retention

- Time to discontinuation (censored for scheduled end of data collection) of OP2L was 6 months prior to the Baseline Date for OE patients and 2 months prior to the Baseline Date for ON patients (Figure 5).

CONCLUSIONS

- At baseline, nearly 61% of DPN-treated patients did not receive any opioids persistency was higher among OE patients.
- The high use of opioids in the management of DPN was seen, particularly among ON patients, signifying the need for treatments that can effectively manage DPN as well as other pain conditions.

References


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