

Geographic variation in gabapentinoid, opioid and physical therapies utilisation among injured workers with low back pain

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Introduction: This study examines regional differences in pain management methods, including gabapentinoids, opioids, and Physical therapies (PT), within the Australian workers' compensation system.

Methods: Workers with accepted compensation time loss claims for low back pain, received by an insurer between 01/01/2010 and 31/12/2017 across Victoria, and with two years of medicines and services follow-up were analysed. Markov transition matrix was employed to explore transition patterns between treatment options at different time frames (1, 3, 6, 12, and 24 months) post-injury.

Results: we found only 16% and 14% of workers used PT-only and mixed medication in the first-month post-injury, respectively. There was a notable increase in the utilisation of treatment options at the 3 months, evidenced by a rise in PT-only, gabapentinoid-only, mixed medication, and both PT and medication states (by 1.1%, 0.2%, 6.6%, and 2.6%, respectively). After 3 months, there was an overall decrease in treatment utilisation, except a rise in mixed medication use (by 1.7%) and both PT and medication (by 1.0%). Regional disparities were evident, with rural areas showing a higher likelihood of utilising opioid-only treatment (by 1.4%) and mixed medications (by 2.4%) compared to major cities. Major cities exhibited a greater utilisation of physiotherapy (by 1.9%) throughout the study than rural areas. These differences were most significant during the first three months.

Conclusion: Understanding variations and geographical disparities in pain management strategies within the Australian workers' compensation system is crucial for targeted interventions, practitioner training, and resource allocation.

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