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A population-based data-linkage study of prescribed pain medications dispensed to persons with cerebral palsy

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Background

Population-based surveys to investigate pain in cerebral palsy (CP) can be costly and results limited by recruitment bias, recall issues, and differences between self-reports and parental accounts. Secondary data analysis may provide a cost-effective alternative to study this issue and its impact in this population.

Objective

Investigate factors associated with dispensing of prescribed pain medications for those with CP.

Methods

Data from the Northern Ireland CP Register were linked with the Enhanced Prescribing Database, a database of prescriptions dispensed by community pharmacies, to investigate dispensing of prescribed pain medications (non-steroidal anti-inflammatories, opioids, non-opioids) between 2010 and 2014. The sample comprised 1,430 individuals with CP and 699,645 with no diagnosis of CP, born 1981-2008.

Findings

Pain medications were dispensed to 61% of the CP population and 51% of the general population ($p < 0.05$). Individuals with CP displayed increased odds of receiving opioid analgesics compared to the general population (OR 2.81, 95%CI 2.32 to 3.40). Among those with CP, likelihood of being dispensed prescribed pain medications was greater amongst females (OR 1.34, 95%CI 1.06 to 1.70), younger age individuals (OR 1.60, 95%CI 1.02 to 2.51), those with reduced motor function (GM-FCS V: OR 2.60, 95%CI 1.52 to 4.47), having seizures (OR 2.55, 95%CI 1.68 to 3.87), and living in deprived areas (OR 2.06, 95%CI 1.41 to 3.24).

Conclusion

Dispensing of pain medications in CP is associated with clinical factors, though even after adjustment for these, living in deprived areas influences uptake of pain medication.

