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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.

