

# Letter to the Editor

## Letter in response to “Polypharmacy is a determinant of hospitalization in Parkinson’s disease”

Dear Editor,

It is with great interest that we read the Giovannini et al<sup>1</sup> article regarding polypharmacy being a determinant of hospitalisation in Parkinson’s disease (PD). Polypharmacy is an increasingly common issue with geriatric patients with multiple co-morbidities<sup>2</sup>. The prescription of drugs to manage these co-morbidities in the elderly carries its own burden, with increased risk of adverse side effects and drug-drug interactions<sup>3</sup>. This can also result in non-adherence to treatment<sup>4</sup>. These points were clearly identified; we believe that there are some caveats worth exploring to broaden the scope of the study.

We believe that there could be a wider breadth of patient demographics included within the study. With an initial cohort of 165 patients, and 46 participants being hospitalised, there are 119 patients that were not hospitalised, making up a significant part of the cohort. The cohort size and limited scope, being 24-months, as well as methodology may have affected results. Given the enrolment dates ending in 2015, there is scope for a five-year hospitalisation follow-up to show the long-term effects of polypharmacy and PD, especially as the non-hospitalised group were, on average, more recently diagnosed compared to the hospitalised group. This leads to the next point regarding demographic data. Given that the prevalence of PD increases from 1% at 60-years to 4% at 85-years<sup>5</sup>, and those older individuals have a higher risk of frailty<sup>6</sup>, age and other demographic data would have better shown the association between polypharmacy, PD, and hospitalisation within the data.

In conclusion, we agree that polypharmacy is a determinant of hospitalisation in PD, and prescribed medications should be reviewed<sup>7</sup>, but the scope of this study could be improved with a larger cohort, demographic data, as well as a polypharmacy control group without a PD diagnosis<sup>8</sup>.

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### Conflict of Interest

The Authors declare that they have no conflict of interests.

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Stephen Chu, Alys Aamar, Samuel Hale, Angela Roxas, and Daniel Redfearn all contributed equally to this letter with each contributor acting towards the writing, referencing, initial proof-reading, and second proof-reading/adjustments.

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