

Polypharmacy and Dementia – A cross sectional study of patients with Dementia attending Psychiatry of Old Age and Geriatric services in the Northwest of Ireland

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Introduction

Polypharmacy in people with dementia (PwD) can often be problematic. The use of multiple medications can negatively impact patient's cognition, functional ability, and adherence. Psychotropic polypharmacy in PwD has also been linked to an increased risk of adverse events.

The aim of this study was to examine the medication data of patients on the dementia case register, identify the prevalence of polypharmacy and psychotropic polypharmacy, and explore factors that may contribute to patients in this cohort taking an excess of medications.

Methods

An existing case register of 496 patients, compiled by the Sligo/Leitrim Psychiatry of Old Age team in July 2019 was used for the analysis. Medication data for 313 (63.1%) patients was included in the database. Statistical analysis included Chi-square, Mann-Whitney U, and Kruskal Wallis tests and was conducted using SPSS 27 software.

Discussion

There are many definitions of the term “polypharmacy”, one of the most recognised being the concomitant use of 5 or more medications. As represented in the data, when this definition is used, a large proportion of PwD experience polypharmacy. With such a high prevalence, it may be easy for clinicians to forget the negative outcomes associated with polypharmacy. It may be necessary at times when patients have many comorbidities, though the benefits of prescribing an excess of medications for every comorbidity must be weighed against the disadvantages of poor adherence, decreased functional ability, and negatively impacted cognition¹. Polypharmacy should be looked at on a case by case basis in PwD and clinicians should regularly review and remove medications that are no longer of benefit to their patient.

Conclusion

Polypharmacy and psychotropic polypharmacy are widespread in this patient group. There is a need for healthcare providers to be aware of this when prescribing and to monitor and reduce polypharmacy when possible.

Results

The median age of patients in the study was 80 years old. Polypharmacy was recorded in 72.2% of patients. The mean number of medications prescribed to each patient was 7.86. 37.4% of patients were taking 5-9 medications, while the number of patients taking 10 or more medications was 34.8%. 41.0% of patients were taking 2 or more psychotropic medications (excluding anti-dementia drugs); when anti-dementia drugs were included, this rose to 61.2% of patients. Significant factors contributing to increased risk of polypharmacy included referral by a GP (rather than a geriatrician), living in long term care, diagnosis of vascular dementia, and the presence of comorbidities such as atrial fibrillation and hypertension ($p < 0.05$). As expected, patients with a formal psychiatric diagnosis were at much higher risk of psychotropic polypharmacy ($p < 0.001$).

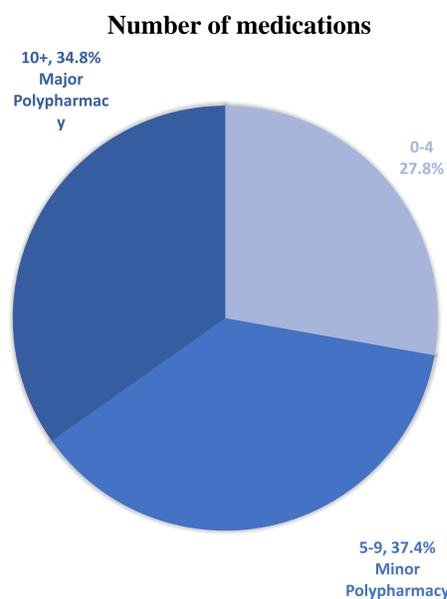


Figure 1. The prevalence of minor and major polypharmacy amongst this patient group.

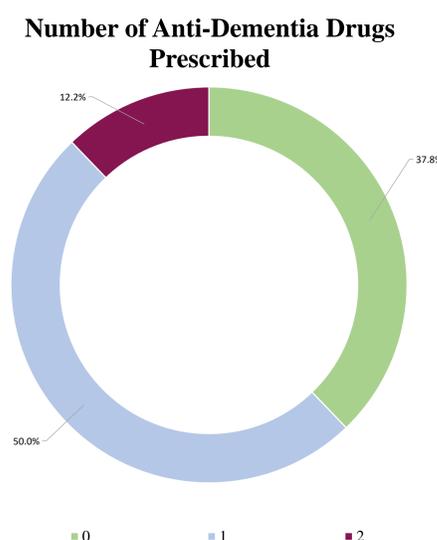


Figure 3. This chart shows the percentage of patients included in our case register prescribed 0, 1, and 2 anti-dementia drugs.

How many medications were our cohort taking?

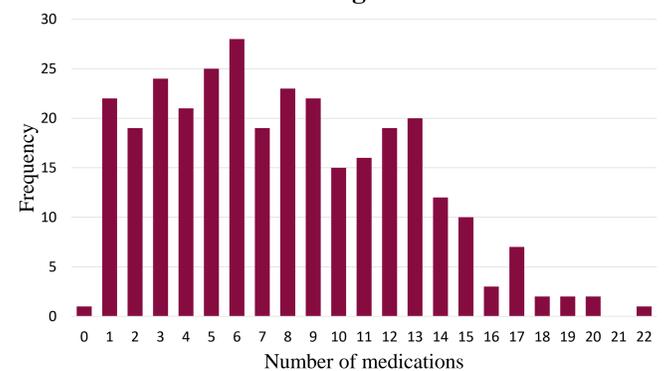


Figure 2. The number of repeat medications prescribed to patients in this cohort varied from 0 to 22.

Independent-Samples Median Test

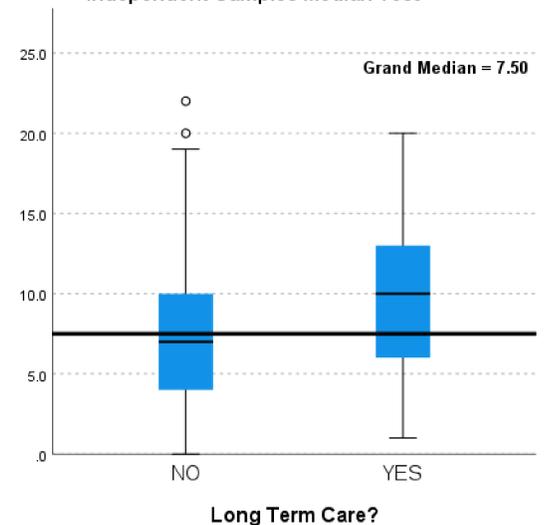


Figure 4 Shows the difference in median number of medications prescribed to patients with dementia who live in long term care and those who do not. The median for the long term care group was 10 while the median for those not living in long term care was 7.

Acknowledgements

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References

¹Walsh, K.A., O'Regan, N.A., Byrne, S., Browne, J., Meagher, D.J. and Timmons, S., 2016. Patterns of psychotropic prescribing and polypharmacy in older hospitalized patients in Ireland: the influence of dementia on prescribing. *International psychogeriatrics*, 28(11), pp.1807-1820.