

Towards a better understanding of polypharmacy and complex medicine regimens

Residents of aged care services often take multiple medicines and have complex medicine regimens. Polypharmacy commonly refers to taking nine or more regular medicines. Polypharmacy may be necessary to manage multiple medical conditions. However, polypharmacy may increase the likelihood of experiencing side-effects and drug interactions.

Resthaven and Monash University have collaborated to better understand the impact of polypharmacy and complex medicine regimens. The research followed 383 permanent residents of six Resthaven aged care services over a 12-month period.

Purpose of the study

This research investigated what factors are associated with having a complex medicine regimen. It also examined whether having polypharmacy or a complex medicine regimen is associated with resident quality of life or the risk of hospitalisation.

Study findings

- Residents with diabetes, respiratory illness, heart failure and who were dependent on staff to carry out activities of daily living were at higher risk of having complex medicine regimens.
- Residents with dementia were less likely to have complex medicine regimens.
- Having polypharmacy or a complex medicine regimen was not associated with either higher or lower quality of life when assessed by registered nurses using a valid measurement scale.
- Residents with polypharmacy had an 89 per cent higher risk of hospitalisation over 12-months compared to residents without polypharmacy, even after accounting for residents' age and medical diagnoses. Residents with polypharmacy also had a higher number of hospital days and a greater number hospitalisations over the 12-month follow-up period. Similarly, residents with complex medicine regimens were also at increased risk of hospitalisation.

What do these findings mean?

- While polypharmacy may be unavoidable, often older people take medicines that are either unnecessary or no longer appropriate. This often occurs because goals of care change as we get older.



- A regular review of medicines allows the GP and pharmacist to assess whether there is an ongoing need for all the medicines taken. The findings highlight the potential value of discontinuing or 'deprescribing' any medicines that are unnecessary. Concerns about the medicines being taken, should be discussed with the nurse, doctor or pharmacist.

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