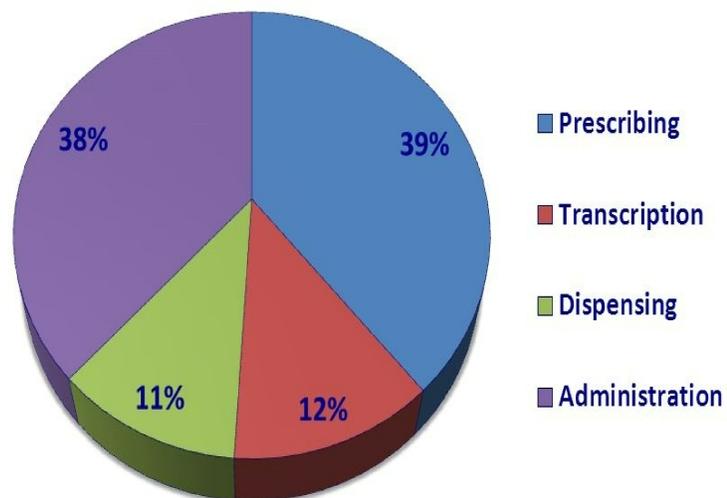


### Introduction

- Older adults are vulnerable to comorbidities, and multiple medications worldwide.
- In Sweden, for example, the proportion of polypharmacy and elders exposed to it was 40%
- Studying practical gaps in medication reconciliation is crucial.
- Appropriate Medication reconciliation increases the level of medication compliance and minimizes error..

### Where Do Medication Errors Occur (%)



Leape LL, Bates DW, Cullen DJ, et al. Systems analysis of adverse drug events. *JAMA*. 1995;274:35-43.

**Objective-** To explore available literatures on polypharmacy and enhance the application of medication reconciliation among elderlies over the age of 65

### Methods

- A systematic review of literature was conducted and analyzed.
- A case scenario was used to show the intended outcome of the reduced number of medications.
- A new patient medication list was established after Medication reconciliation.

### Results

- The overall prevalence of polypharmacy in the elderly is 65% in the US
- Polypharmacy showed a significant association with the low-income as compared to the national middle and health insurance plan population.
- It is a common problem in skilled nursing facilities and after hospital discharge.

### Polypharmacy and Comorbidities

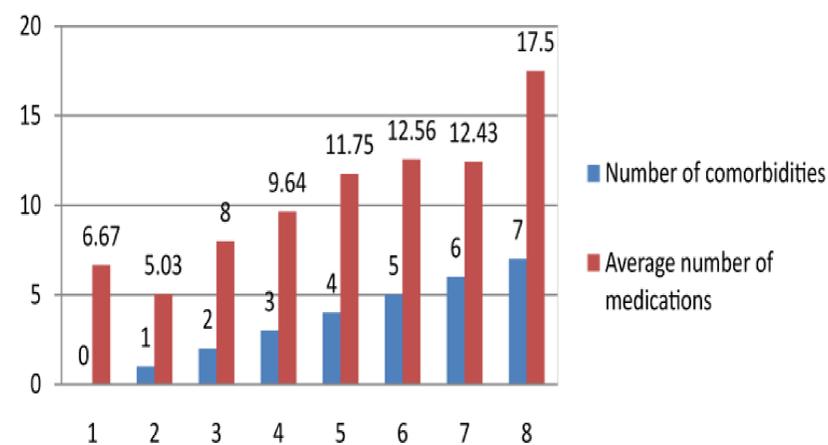


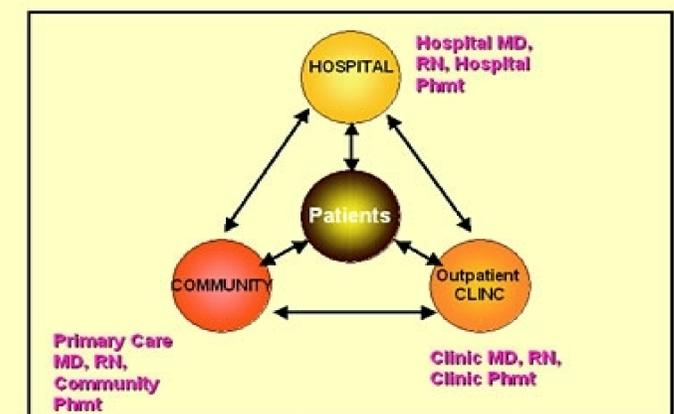
Fig 2. Polypharmacy and comorbidities in the elderly population M. Ameri e.etal 2015

- Comorbidities appeared to be the reason for inappropriate Medication prescription.
- Reconciliation reduced the number from 17 to 8. medications in the case scenario used.

### Conclusion

- Polypharmacy is a significant challenge in the elderly population.
- Comorbidities and adverse reactions force the elderlies to become non-adherent.
- Medication reconciliation improves the safety of patients
- Providers' systematic approach can avoid the unnecessary load of medications..

### Patient & Multi-Disciplinary Interfaces in the Medication Information Transfer Process



S. Ong et al *Ann Pharmacother* 2006;40:408-13

A. Cesta BScPhm

\_Fig 3. S.ong et.al *Ann Pharmacother* 2006;40:408- 43

### References

- Jin, H., Kim, Y., & Rhie, S. J. (2016). Factors affecting medication adherence in elderly people. *Patient preference and adherence*, 10, 2117–2125. <https://doi.org/10.2147/PPA.S118121>
- Morin, L., Johnell, K., Laroche, M. L., Fastbom, J., & Wastesson, J. W. (2018). The epidemiology of Polypharmacy in older adults: register-based prospective cohort study. *Clinical epidemiology*, 10, 289–298. <https://doi.org/10.2147/CLEP.S153458>
- Rappaport R., Arinzon, Z., Feldman, J., Lotan, S., Heffez-Aizenfeld, R., & Berner, Y. (2017). The Need for Medication Reconciliation Increases with Age. *The Israel Medical Association journal : IMAJ*, 19(10), 625–630
- Zelko, E., Klemenc-Ketis, Z., & Tusek-Bunc, K. (2016). Medication adherence in elderly with polypharmacy living at home: a systematic review of existing studies. *Materia socio-medica*, 28(2), 129–132. <https://doi.org/10.5455/msm.2016.28.129-132>

Contact - [wondimus@yahoo.com](mailto:wondimus@yahoo.com)