

Screening for Inappropriate Polypharmacy in Assisted Living Residents

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Problem Statement

- Inappropriate polypharmacy disproportionately affects older individuals
 - 91% in long term care take ≥ 5 medications
 - Those $> 65y/o$ are 7x more likely to have hospitalization for adverse drug event (ADE)
- ADEs cost the United States \$3.5 million each year
- Routine medication reviews recommended by AGS & AAFP to improve appropriateness

Purpose

- Purpose : Improve prescribing behavior of providers
- Short term goal: Perform formal medication appropriateness review on each assisted living (AL) resident using Screening Tool of Older Persons' Prescriptions (STOPP) criteria
- Long term goal: Reduce the number of inappropriate medications taken by assisted living residents according to STOPP criteria

Methods

- 24 assisted living residents within large continuing care retirement community
- Virtual training of 2 providers on use of Screening Tool of Older Persons' Prescriptions (STOPP) criteria
- Medication Appropriateness Review Checklist and Medication Appropriateness Review Tool created using STOPP criteria.
- Providers used tools in paper format to review medications and indicate the following for each resident:
 - Total number of medications prescribed before and after review
 - Potentially inappropriate medications (PIMs) identified by STOPP criteria
 - Indication for PIMs
 - Plans to continue or alter PIM use, along with rationale
 - Amount of time required to perform each review
- Descriptive analysis performed using Microsoft Excel

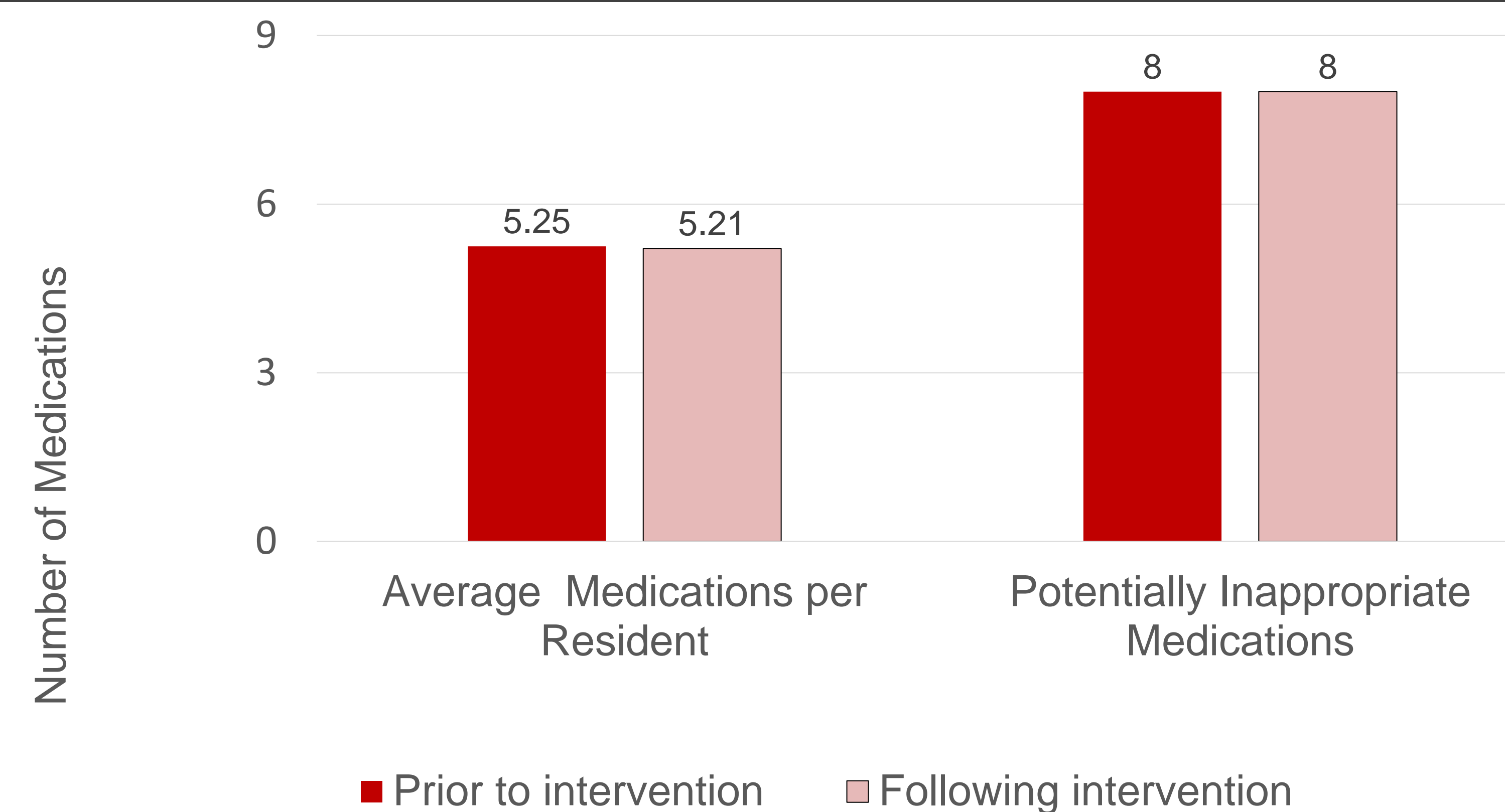
STOPP Criteria

- Explicit criteria that alerts providers to potentially inappropriate medications (PIMs) in older adults (O'Mahony et al., 2015)
 - Shown to reduce number of PIMs
 - Shown to reduce frequency of adverse drug events

Results

- Medication reviews performed on 100% of assisted living residents (N= 24)
- 8 PIMs identified by STOPP criteria, all were continued
 - 5 PIMs: provider determined benefit greatly outweighed risk
 - 3 PIMs: residents' preference to continue after discussion of risks
- 1 medication discontinued due to lack of efficacy
- Average of 7.65 minutes required for each review
- Providers felt tool was easy to use

Medications Prescribed Before and After Medication Appropriateness Screen



Discussion

- All assisted living residents received medication review using STOPP criteria
- No change in appropriateness according to STOPP criteria
 - Lack of improved appropriateness contrasts existing evidence
 - Participating providers had high level of geriatric expertise
 - Practice site will not continue use of due to perceived lack of benefit
- Residents' resistance to deprescribing was time consuming and challenging to providers

Barriers	Facilitators
Elementary recommendations for providers with extensive geriatric experience	Limited time and effort to complete screening process
Explicit criteria limits opportunities for personalized assessment	Explicit criteria likely simplifies review for providers new to geriatric
Not incorporated into electronic health record (EHR)	Formal review prompts adjustments to medications beyond criteria
No evidence-based recommendations for how frequently to perform	Nonproprietary

Conclusion

- Medication Appropriateness Review Checklist and Review Tool assisted providers in performing medication appropriateness reviews on all assisted living residents
- Tools were acceptable to providers in terms of required time and effort
- Bias in data collection process may have contributed to lack of improved appropriateness
- Criteria may offer minimal benefit to providers with extensive geriatric knowledge base
- Future Work::
 - Assess benefit to providers who are new to geriatric care
 - Incorporate into EHR to streamline review process
 - Create patient-directed educational material discussing risks of inappropriate polypharmacy and benefits of deprescribing specific medications
 - Identify tool that facilitates individualized medication assessment and quality of life discussions for providers with more geriatric experience

References

Health, United States, 2017. Retrieved from <https://www.cdc.gov/nchs/data/abus/2017/079.pdf>
 O'mahony, D., O'sullivan, D., Byrne, S., O'connor, M. N., Ryan, C., & Gallagher, P. (2015). STOPP/START criteria for potentially inappropriate prescribing in older people: Version 2. *Age and Ageing*, 44(2), 213–218. <https://doi.org/10.1093/ageing/afu145>.