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# Improving Polypharmacy and Medication Review in the Elderly

CVPH Family Medicine Plattsburgh, NY, March 2023-April 2023

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# Problem Identification

- ▶ Polypharmacy is defined as taking 5 $\geq$  medications, and elderly is defined as 65 $\geq$  years old
- ▶ Approximately 36.8% of the elderly in the US are on polypharmacy
- ▶ 18.2% of the population in Clinton County (Plattsburgh) are elderly
- ▶ Being on polypharmacy increases risk of adverse drug event (ADE) by 88%
- ▶ Polypharmacy is associated with medication non-compliance, increased falls, and decreased functional status/cognition
- ▶ 50% of patients could not name the medications listed in their chart
- ▶ The successful deprescription of medications to reduce polypharmacy and ADE's relies upon accurate knowledge of the medications being taken by the patient
- ▶ The focus of this project is medical practice transformation

# Public Health Cost

- ▶ Polypharmacy is approximated to cost the health care system 50 billion USD annually
- ▶ Estimates show that avoidable polypharmacy in the elderly costs 1.3 billion USD annually
- ▶ Outpatient adverse drug events cost 1 billion USD annually, accounting for 33% of all ADE's
- ▶ 23% of the elderly reported difficulty affording medication, 21% did not take their medication because of cost
- ▶ Removing potentially inappropriate medications has an annual per capita saving of \$153.46
- ▶ Elderly population expected to double (98 million) by 2060

# Community Perspective

- ▶ Tracy Steadman LPN, nurse in Plattsburgh, NY
  - ▶ “How we review medications is highly dependent on the patient. I’d say 1 in 5 know all of their med info, are compliant, and on top of everything. Most don’t know names or dosages, but if you ask, ‘Are you taking your cholesterol pill?’ they’d know that. We mostly ask patients to bring their meds in if they have recently been admitted, but I do think the best way is to have elderly patients bring their meds to each visit. I think they’d do it, especially if we gave them a reminder and were explicit about it, however you will always have some who won’t.”
- ▶ William Heuson, elderly patient in Plattsburgh, NY
  - ▶ “I think patients would be willing to bring their medications in. My preference is to always bring a list of my medications and doses I make from the labels on the bottle. I think that is the easiest way; its easier to remember to bring that than remember the medication info.”

# Intervention

- ▶ Request that elderly patients bring their medications from all providers (including OTC's and supplements) to each visit
- ▶ EPIC smart phrase created to be used in the patient instructions tab as a reminder
- ▶ Provide dedicated time for medication review with the patient once they've turned 65 years old
- ▶ This will allow for accurate information regarding the medications being taken and at what dose

# Data and Response

## ▶ Data

- ▶ EPIC smart phrase: “Please remember to bring all medications, including over the counter and supplemental medicines, to your next appointment.”

## ▶ Response

- ▶ Nurses, residents, and attendings believe this to be the most effective way to accurately understand patient’s medication list and see this as a benefit to an area that needs improvement. A patient who brought his medications with him was able to show us a medicine he otherwise would not have remembered the name of. Providers feel having a dedicated review visit will alleviate burden on already time constricted visits.

# Evaluation of Effectiveness and Limitations

## ▶ Evaluation of Effectiveness

- ▶ Record and compare patient satisfaction/quality of life before and after medication review
- ▶ Survey providers on if deprescription has increased
- ▶ Survey nurses regarding if accuracy of medication review with the patient has improved
- ▶ Evaluate how many patients remember to bring medications

## ▶ Limitations

- ▶ An aspect of this intervention relies upon patient memory, which attempts to solve a problem created by patient memory
- ▶ Dedicated time to review medications may be difficult for clinics currently struggling to fit patients into the schedule



# Recommendations for Future Interventions

- ▶ Create a model in Epic that will trigger an alert when a patient turns 65 to schedule a medication review
- ▶ Create tracker in Epic that accounts for all elderly patients on polypharmacy in the clinic and number of ADE's
- ▶ Ensure providers are familiar with Beers Criteria and START/STOP criteria
- ▶ For patients who do require polypharmacy, evaluate financial burden and ensure they are provided with assistance programs if necessary

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