

Introduction

- Older adults are prescribed **potentially inappropriate medications (PIMs)** at concerning rates – especially in the psychiatric population (Fond et al., 2016)
- **PIMs**= medications that should be avoided due to risk for **adverse drug reaction (ADR)** outweighing potential benefits
- Many psychotropic medications (e.g., certain antidepressants, antipsychotics, and anxiolytics) are considered PIMs
- **Polypharmacy** (the concomitant use of 5 or more medications) is also a problem for older adults with mental illness, as risk for ADRs ↑ with each drug added to their regimen (Centers for Disease Control and Prevention, 2018)

Background & Significance

- Age-related physiological changes leading to altered pharmacokinetics, polypharmacy and PIMs place older adults at particular risk for serious and avoidable ADRs including falls, fractures, cognitive impairment and dementia. These ADRs can result in avoidable hospitalizations and ↑ mortality rates (Davies & O'Mahoney, 2015)
- Studies show medication reviews can improve safe prescription practices
- Medication reviews are commonly guided by evidence-based clinical recommendations like the widely used **Beers Criteria** summarizing PIMs to avoid prescribing to older adults (American Geriatrics Society, 2019).

Aim & Objectives

Primary **aim** was to improve older adult consumer safety in an outpatient mental health setting: “*Jersey Health*”

Objectives

- Conduct a chart review guided by 2019 Beers Criteria to assess (a) polypharmacy rates and (b) the most common PIMs prescribed to adults 65 or older at *Jersey Health*
- Develop recommendations for senior prescribing safety incorporating (a) salient findings from the chart review and (b) possible alternatives addressing *Jersey Health's* problem areas identified in the chart review.

Methodology

DESIGN:

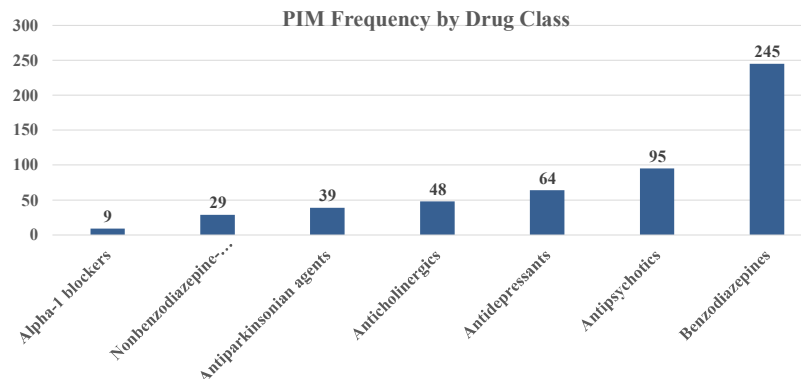
- Retrospective chart review of 1 year-period (March 15, 2019- March 15, 2020) at *Jersey Health*;
 - Inclusion criteria: patients aged 65+ prescribed 1 or more medications
 - No exclusion criteria
- Guided by Beers Criteria Table 2, PIM & polypharmacy prescription trends were identified
- Demographic variables age, sex, race collected
- All data was deidentified and organization given pseudonym: “*Jersey Health*”

ANALYSIS:

- SPSS 27 used to analyze deidentified data frequencies & Chi-square analysis to evaluate differences for sex, race, & age in consumers prescribed a PIM vs. consumers not prescribed a PIM
- Following analysis, results were shared with quality improvement office via an executive summary

Results

- Total Sample Characteristics:**
- 321 charts met inclusion criteria (N= 321)
- Total # of prescriptions in data set= 2,063
- PIM Sample:**
- # PIM Prescriptions (N=529) or **25.6% of total prescriptions**
- # Consumers prescribed a PIM=173 (**53.8% total sample**)
- No statistically significant differences for sex, race, or age found in those prescribed a PIM and those not prescribed a PIM
- Benzodiazepines** (46.0%) and **antipsychotics** (18.0%) were most frequently prescribed drug classes
 - *antipsychotics prescribed for conditions other than bipolar disorder or schizophrenia-related disorders are PIMs



Results cont.

- Polypharmacy:** 5.0% of consumers prescribed 5+ medications – ** this statistic only includes Rx's issued by *Jersey Health* as primary care information is not available in the Electronic Medical Record (EMR)

Discussion & Implications

- ***Jersey Health's* PIM rate is high: > 1/2 of all senior consumers were prescribed a PIM**
- Reducing the PIM rate should be a quality improvement target for *Jersey Health (JH)*
 - Primary target: ↓ benzodiazepines
- Deprescribing interventions aimed at prescribers and consumers could help lower *JH's* PIM rate
- JH* should consider embedding a Clinical Decision Support (CDS) tool in their EMR to alert providers of PIMs
- JH* should explore using an alternative EMR that integrates both primary care and behavioral health care information to enhance medication transparency, & reduce drug-drug interactions, PIMs and polypharmacy
- Annual e-learning educational modules focused on Beers Criteria could raise *JH* provider awareness of PIMs & associated risks
- JH* should conduct future pharmacist/provider-led medication reviews as the Beers Criteria are updated regularly

References

- American Geriatrics Society. (2019). Updated 2019 AGS Beers Criteria for potentially inappropriate medication use in older adults. *Journal of the American Geriatric Society*, 67(4), 674-694. doi:10.1111/jgs.15767
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- Davies, E. A., & O'Mahony, M. S. (2015). Adverse drug reactions in special populations - the elderly. *British Journal of Clinical Pharmacology*, 80(4), 796-807. doi:10.1111/bcp.12596
- Fond, G., Fajula, C., Dassa, D., Brunel, L., Lancon, C., & Boyer, L. (2016). Potentially inappropriate psychotropic prescription at discharge is associated with lower functioning in the elderly psychiatric inpatients. A cross-sectional study. *Psychopharmacology*, 233(13), 2549-2558. doi:10.1007/s00213-016-4312-z