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## Title

An economic evaluation of prescription drug costs in a deprescribing initiative in a Skilled Nursing Facility System

Priority 1 (Research Category)

Economic or policy analysis

## Presenters

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## Abstract

Context: Polypharmacy increases health care system costs. Objective: Does a deprescribing protocol reduce the number and cost of prescriptions filled by medication class in two skilled nursing facilities (SNFs). Study Design and Analysis: Retrospective, longitudinal pre/post evaluation. Comparison of the number and cost of prescriptions by medical class in the pre-intervention period (2017-2019) with the post-intervention period (2020-2021). Prescription drug prices were adjusted to reflect the average prescription drug price increase over time. Setting or Dataset: Prescription level data received from the medication supplier to the SNFs, which included prescription drug category (anti-anxiety agents, antibiotics, anticoagulants, antidepressants, antipsychotics, diuretics, hypnotics, opioids), drug name, dose, drug price, insurance company, name brand or generic, and a system generated identifier that allowed for aggregation of prescriptions by patient. Population Studied: Patients at two SNFs. Intervention/Instrument: Deprescribing effort in two SNFs that included clinician education, protocol development and chart reviews. Outcome Measures: Number and proportion of prescriptions by drug category, and number of patients with a prescription by drug category, in the pre- and post-intervention period. Descriptive statistics on prescription drug costs and total expenditures on prescription drugs by drug category, pre- and post-intervention. Results: There were 50,194 prescriptions and 2,839 patients in the pre-intervention period, and 48,822 prescriptions and 2,580 patients in the post-intervention period. There was a statistically significant reduction in the number and proportion of prescriptions in the post-intervention period for anti-anxiety agents, antipsychotics, diuretics, and opioids. The number and proportion of prescriptions for anticoagulants and antidepressants was significantly higher in the post-intervention period. There was a significant increase in the mean cost of prescription drugs in the anticoagulant and antipsychotic drugs, explained by the prescribing of newer brand name drugs. Postintervention total expenditures were lower on anti-anxiety agents and opioids, and higher for anticoagulants and antipsychotics. Overall expenditures were higher post-intervention due to significantly higher expenditures for anticoagulants and antipsychotics. Conclusions: Cost savings in some categories were offset by newer, more expensive drugs.