Submission Id: 4792

Title

Medications adherence and ER visits and hospitalizations among elderly patients

Priority 1 (Research Category)

Geriatrics

Presenters

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Abstract

Context

Medication adherence is a key factor in medical treatment. Good adherence to medication among diabetic patients was associated with better health results and lower medical costs.

Objectives

We aim to explore the associations of adherence levels to chronic medications with emergency room (ER) visits and hospitalizations among elderly patients.

Methods

This is a cohort study. Individuals aged 75-90 years, with a diagnosis of diabetes mellitus or hypertension, treated with at least one antihypertensive or antidiabetic medication during 2017 were included. We determined personal adherence rates by calculating the mean adherence rates of the medications prescribed to each individual. Adherence rates were stratified into categories. We retrieved information about all the ER visits, and hospitalizations in internal medicine and surgical wards during 2016-2019.

Results

Of 171,249 persons included in the study, 60% were women.

The mean age was 81.2 years. 93% had Hypertension 46% had diabetes and 39% had both diabetes and hypertension.

The mean number of chronic medications used was 3.1±1.5.

In total, 61,668 (36.0%) of the cohort visited the ER at least once during 2017; 44,910 (26.2%) were hospitalized in internal medicine wards; and 13,305 (7.8%) in surgical wards during 2017.

Comparing the highest adherence quintile to the lowest, odds ratios were 0.69 (0.63, 0.76) for ER visits, 0.40 (0.36, 0.45) for hospitalization in internal wards; and 0.61 (0.52, 0.72) for hospitalization in surgery wards.

ORs were similar for the three consecutive years 2016-2018.

Conclusion

Better medication adherence was associated with fewer ER visits and hospitalizations among elderly patients with diabetes and hypertension. Investing in improving medication adherence may reduce health costs and improve patients' health.