

## POSTER ABSTRACTS

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### Health Economics 25

#### The Costs Associated with Adverse Drug Events Among Older Adults in the Ambulatory Setting

Terry S. Field, Boyd H. Gilman, Sujha Subramanian, David W. Bates, Jerry H. Gurwitz

**Background:** Reducing the rate of adverse drug events in the ambulatory setting may require large investments in quality improvement efforts and technological innovations. Little evidence is available on the potential resulting savings.

**Objective:** To estimate the costs associated with adverse drug events among older adults in the ambulatory setting.

**Research design:** A one-year retrospective cohort study among Medicare enrollees of a large multi-specialty group practice. The study included 1225 older adults with an adverse drug event. A matched comparison group was randomly selected from enrollees with recent health care encounters and medication dispenses. Outcome measure: Difference between estimated costs for medical care utilization during the 90 days prior to and 90 days beginning with the day of an adverse drug event.

**Results:** For all adverse drug events, the increase in post-event costs over the pre-event period was \$1249 (95% CI \$447, \$2051) greater for those experiencing an adverse drug event than the comparison group, after controlling for age, sex, comorbidity, number of scheduled medications, and having been hospitalized during the pre-event period. For preventable adverse drug events, the adjusted increase was \$2187 (95% CI \$172, \$4202) greater for cases. Based on rates of adverse drug events and these cost estimates, 1,000 older adults would have annual costs related to adverse drug events in the ambulatory setting of \$62,581 with \$30,175 of this associated with preventable events.

**Conclusions:** Adverse drug events in the ambulatory setting substantially increase the health care costs of elderly persons.