

POSTER ABSTRACTS

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Evaluating Care Delivery 36

Which Long-term Care Residents are at High Risk for Adverse Drug Events?

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Background: Adverse drug events (ADEs) are among the most serious concerns about medication use in residents of long-term care facilities. In a recent study of long-term care residents, we found a rate of 9.8 ADEs per 100 resident-months, of which 4.0 were preventable. To direct prevention efforts, information is needed on factors associated with high risk.

Methods: Case-control study nested within a prospective study of ADEs at two large, academically affiliated, long-term care facilities.

Results: We identified ADEs in 475 residents. In analyses of age, gender, functional status, burden of illness, and medication use, few independent risk factors were found; all were related to medications. Risk factors included taking anticoagulants (odds ratio (OR) 3.1, 95% confidence interval (CI) 1.7, 5.6), antibiotics (OR 1.9, CI 1.3, 2.8), antipsychotics (OR 2.4, CI 1.7, 3.5), and anti-epileptics (OR 1.6, CI 1.1, 2.5). Residents taking non-opioid analgesics were at lower risk (OR 0.42, CI 0.22, 0.80). There was a significant dose-response relationship between number of regularly scheduled medications and ADEs. Preventable ADEs occurred in 247 residents. Independent risk factors included taking anticoagulants (OR 2.8, CI 1.6, 4.7), antibiotics (OR 1.7, CI 1.0, 2.7), antipsychotics (OR 3.4, CI 2.0, 5.9), anti-epileptics (OR 2.0, CI 1.1, 3.7), and diuretics (OR 2.2, CI 1.2, 4.0).

Conclusions: Few characteristics were identified to support targeting of efforts specifically to ADE-prone individuals. Prevention should focus on improving medication systems that apply to all residents in long-term care facilities.