Adverse Drug Event Nonrecognition in Emergency Departments: An Exploratory Study on Factors Related to Patients and Drugs

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Abstract

Background: Many adverse drug events (ADEs) are not identified by emergency physicians. Research has been done to study risk factors for ADEs and help emergency physicians diagnose ADEs. However, no research has specifically examined the causes underlying a lack of attribution of ADEs to medications in emergency department (ED) patients.

Objective: We conducted an exploratory study in a medical ED to search for the factors associated with ADE nonrecognition that are related to ED patients and ADEs.

Methods: We conducted an observational study in the medical ED of a French tertiary care hospital between January and December 2009. The study focused on all ADEs, whether or not they were related to the patient's chief complaint. ADEs were identified by an expert physician and pharmacist based on National Electronic Injury Surveillance System criteria. An ADE was considered "attributed" if any evidence of ADE suspicion, ADE diagnosis, or ADE management was documented on ED charts. Factors associated with ADE nonrecognition were identified using multiple logistic regression analysis.

Results: Of the 465 included patients, 90 experienced an ADE at ED visit (19.4%; 95% confidence interval [CI] 15.9%-23.2%). Emergency physicians correctly recognized 36 of these cases (40.0%; 95% CI 29.8%-50.9%). On multivariate analysis, ADE nonrecognition was significantly associated with the following variables: nonrelation between the ADE and the patient's chief complaint; daily prescription of four drugs or more; and hospitalization ADE severity category.

Conclusions: Our results emphasize the importance of searching for ADEs in patients with daily polypharmacy or whose chief complaint does not seem to be drug related.

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