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Pharmacists reduce risk of ADEs, medication errors for outpatients with cardiovascular disease, study shows

Patients with cardiovascular disease who received care in the outpatient setting were 34% less likely to have any adverse drug events (ADEs) or medication errors when their medications were monitored by pharmacists and they received medication-use instructions, according to a study published in the April 27, 2009, *Archives of Internal Medicine*.¹

Patients whose medications were monitored electronically by a pharmacist and who were educated by a pharmacist on appropriate medication use had lower risks than control group patients who received usual care of ADEs (35%), preventable ADEs (48%), potential ADEs (30%), and medication errors (37%). The study analyzed results of two randomized controlled trials, one examining heart failure (from February 2001 to November 2004) and another examining hypertension (from January 2002 to May 2005), among outpatients of Wishard Health Services in Indianapolis, Ind. There were 314 patients in the heart failure trial (122 in the intervention group and 192 in the control group) and 492 patients in the hypertension trial (246 each in the intervention and control groups).

In both trials, pharmacists dispensed medications and educated patients on appropriate medication use. Patients' medications were placed in containers that were electronically monitored by a pharmacist who tracked medication adherence. Nonprescription medications were also tracked by a pharmacist; the materials given to patients; and communications with patients, nurses, and physicians. Patients in the control group received usual care from pharmacists.

The study abstract is available at <http://archinte.ama-assn.org/cgi/content/short/169/8/757>

Murray MD, Ritchey ME, Wu J, et al. Effect of a pharmacist on adverse drug events and medication errors in outpatients with cardiovascular disease. *Arch Intern Med*. 2009; 169:757-63.

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ASHP Health Policy Alerts are synopses of new studies highlighting the medication-use process in health care, especially studies assessing contemporary pharmacists' role in improving medication-use outcomes. The American Society of Health-System Pharmacists encourages recipients to keep a copy of this synopsis for future reference.

