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Medical Record Documentation Regarding Drug-Drug Interactions in Ambulatory Care

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Background: Previous efforts document the prevalence of drug-drug interactions in ambulatory care. Yet, use of interacting drugs may be indicated if benefits outweigh risks. We describe documentation of potential risks and patient education regarding these risks at the time interacting drugs are prescribed as well as clinical management changes to minimize risks.

Methods: The study population was identified from the HMO Research Network's Center for Education and Research on Therapeutics (CERTs). Each of the 10 organizations randomly selected medical practice-based samples of approximately 200,000 individuals (N=2,020,037). We identified a random sub-sample of these patients aged 18 and older with prescription drug coverage in 2000 initiating a 'new' co-dispensing of known prevalent interacting drugs: warfarin with a non-steroidal anti-inflammatory drug (n=97), digoxin with verapamil or diltiazem (n=100), or lovastatin/simvastatin with diltiazem or verapamil (n=89). Information was abstracted from medical records on provider knowledge of drug benefit/risks, provision of patient education, and clinical management changes in the 6-week period preceding and 2-week period following the first date of evidence of co-prescribing in the medical record. Taking into account the clustering effect of site, we estimate the percent of (and 95% confidence intervals [CI] for) patients with documented provider knowledge, patient education, and clinical management changes.

Results: Among those prescribed an interacting drug pair, prescriber knowledge of risk and the provision of patient education were documented less than 14 percent of the time for each of the three interacting drug pairs (all corresponding 95% CI < 23%). Documentation regarding clinical management changes was more common, ranging from 64% (95% CI: 47-81%) among lovastatin/simvastatin patients to 79% (95% CI: 60-99%) among warfarin patients.

Conclusions: Among ambulatory patients co-prescribed interacting drugs, a substantial proportion lack medical record documentation of associated risks or provision of related patient education. Documentation regarding clinical management changes is more common.

Our findings call into question the extent to which physicians and patients are making informed decisions regarding the concomitant use of interacting drugs in the outpatient setting.