

Medication Reconciliation-data and relevance in ambulatory care

Olaf Rose 1, Ulrich Jaehde 2, Juliane Köberlein-Neu³.

1Dept. of Pharmacotherapy & Translational Research, College of Pharmacy, University of Florida, USA. 2Clinical Pharmacy, Institute of Pharmacy, University of Bonn, Germany. 3Department of Health Care Management and Public Health, Schumpeter School of Business and Economics, University of Wuppertal, Germany

Background Medication Reconciliation is a fast approach in pharmaceutical care to detect drug-related problems and the first step in a Medication Review. Most studies on Medication Reconciliation were conducted in the hospital setting or at the transition of care. A Medication Plan, which is recently became obligatory for eligible patients in Germany, facilitates Medication Reconciliation as the next step in medication safety.

Purpose The study aim was to provide accurate data on the magnitude of discrepancy between the prescription and the actually taken medicine in ambulatory care. In a second step, the clinical relevance of discrepancies was assessed to estimate the meaning of the results to medication safety.

Method The study was conducted as a secondary data analysis of the WestGem study. Medication found at a home assessment was reconciled with the primary care physician's documentation by clinical pharmacists, results were descriptive. High risk of hospitalization was based on studies of van der Hooft et al. and Budnitz et al. and included: Anticoagulation drugs, Digoxin, Cytostatics, Diuretics, Insulin, oral Antidiabetics carrying risk of hypoglycemia, Salicylates and DMARDs. Drugs likely to cause interactions in contrast were rated based on literature and databases by six clinical pharmacists according to the specific medication of the patient. Drugs were analyzed by the authors as a whole as well as per patient. Results were dichotomized as 'high-risk drugs' or 'no high risk drugs'.

Findings Medication was reconciled in 142 elderly patients with polymedication from 12 primary care practices. 1498 drugs were found at the home assessment compared to 1099 (73.4%) in the documentation of the primary care physician. 94.4% of the patients were affected by discrepancies. A total of 2.8 ± 2.4 drugs was undocumented per patient. According to the patients 21.6% of missing drugs were prescribed by medical specialists, 26.8% were over the counter drugs. For the remaining drugs the patients could not remember the origin but another 42.5% of them were prescription drugs. 53.9% of the patients used an undocumented drug, which carried a high risk for hospitalization, 76.1% a drug, which was likely to cause drug-drug interactions.

Conclusion Discrepancy between the drugs used by the patient and the medication documented by the primary care physician was profound as virtually all patients used drugs prescribed by additional physicians or acquired elsewhere. The majority of related drugs was relevant to medication safety. A collaborative Medication Reconciliation could compile the entire medication and increase patient safety.