

## Extent to which primary care patients underuse effective drug therapies or are at risk for potential drug-related problems

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This study reviewed patients' charts to identify people who may benefit from a medication review because they have not been prescribed effective drugs or they are using medications that put them at risk for drug-related problems. A substantial proportion of patients met at least one criterion for medication review.

**Background:** Research is needed on ways to identify patients who may benefit from pharmacist assessment. This study used a chart audit and pre-specified criteria to determine the extent to which primary care patients underuse effective drug therapies or are at risk for drug-related problems.

**Methods:** This study was a cross-sectional survey. Charts from a random sample of patients aged 65 years and older were reviewed in seven Ontario family practice networks between May and November 2004 as part of the Integrating Family Medicine and Pharmacy to Advance Primary Care Therapeutics (IMPACT) Project. Twenty-two indicators were chosen based on their established validity, expected potential for improving health or reducing drug-related risk, expected prevalence, and feasibility for data abstraction via chart audit. Example indicators were diagnosis of hypertension and diabetes but not using an angiotensin-converting enzyme inhibitor, using more than eight medications, and currently using digoxin with or without an elevated drug measurement. Data were abstracted for the preceding year using a structured form. Overall proportions for data combined from all sites, and minimum and maximum proportions from data across the seven practice sites are presented.

**Results:** Charts were reviewed for 1808 patients. Eighteen percent ( $n=319$ ; min-max 6% to 29%) of patients used more than eight medications. Eighty-four percent ( $n=1520$ ; min-max 76% to 95%) of patients met one or more criteria, 62% ( $n=1119$ ; min-max 50% to 82%) met two or more, and 36% ( $n=654$ ; min-max 24% to 56%) met three or more.

**Conclusions/Implications:** A substantial proportion of patients met at least one criterion for medication review. All indicators suggest areas for potential improvement in drug prescribing or monitoring. Considerable variation was seen among practice sites. Further work is needed to improve the efficiency of the method before it can be considered feasible under normal practice conditions.

## What information about their medications did patients get and what do they want to know?

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Patients need to have adequate knowledge and understanding of their medication to make informed decisions about their health. The objective of this study was to determine how we could optimize the usefulness of written drug information on ramipril by questioning patients who called the Medical Information or Pharmacovigilance services.

**Background:** Patients need to have an adequate understanding of their medication to make informed decisions about their health. Written information tailored to the patient's needs is a simple way to deliver drug information and has the potential to improve the patient's knowledge. The objective of this study was to determine how to optimize the usefulness of written drug information on ramipril.

**Methods:** This pilot project was a telephone survey. All patients phoning the Medical Information or Pharmacovigilance services to get information on or to report a side effect from ramipril were eligible. Verbal consent was required to enroll the patient in the project. The questionnaire, specifically developed for this project, contained nine questions; each question was read directly from it to minimize interpretative differences and prompting. The Medical Information and Pharmacovigilance specialists collected the data.

**Results:** A total of 102 patients were eligible. Of these, 86 (84.3%) agreed to participate. Forty-six out of 86 patients (53.5%) received written information on ramipril. Physicians provided the written information to 23 patients (50%), and pharmacists provided it to 20 patients (43.5%). When asked about the type of written information that should be provided, the patients listed many categories. Among them, the information on adverse reactions was most frequently requested (78.9%), followed by indications (44.7%), interactions (26.3%), mechanism of action (26.3%), dosage and administration (23.7%), and drug efficacy (18.4%). As for who should provide the information on the medication, 58 patients (67.4%) said the pharmacist and 45 (52.3%) said the physician. Among the tools proposed to distribute the information, 50 patients (58.1%) favoured a one-page summary, 46 (53.5%) said they would like a detailed booklet, 28 (32.6%) a website, 8 (9.3%) a CD-ROM, and 8 (9.3%) a VHS cassette.