

# Medication Safety Alerts

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This column draws on US and Canadian experience and includes, with permission, material from the *ISMP Medication Safety Alert!*, a biweekly bulletin published by the Institute for Safe Medication Practices (ISMP), Huntingdon Valley, Pennsylvania.

## MEDICATION SAFETY AND SEAMLESS CARE

When we investigate medication errors, we notice that errors have frequently occurred during transfer of patients from one health care setting to another. The underlying contributing factors have often included some form of miscommunication between the hospital, the community pharmacy, the patient, the pharmacist, and the physician. Examples have included a patient discharged from hospital with a prescription for warfarin but lack of continued follow-up to ensure monitoring of international normalized ratio (INR) and dose adjustments. Another example involved a patient admitted to a hospital emergency department for whom a complete medication history was not obtained. In this case, because anti-epileptic therapy was not continued in hospital, the patient experienced a seizure after admission. It is well recognized that if optimum patient outcomes are to include safe and effective pharmacotherapy, then the practice of “seamless care” is an important component to bridge the gap between inpatient and outpatient care.

Pharmaceutical care provided by pharmacists is being enhanced to encompass all patient settings, to ensure that drug therapy for patients is not disjointed or fragmented. CSHP and the Canadian Pharmacists Association (CPhA) have jointly developed a conceptual model of seamless care that encourages and supports pharmacists to include this concept as a standard of practice. Seamless care is defined as “The desirable continuity of care delivered to a patient in the health care

system across the spectrum of caregivers and their environments. Pharmacy care is carried out without interruption such that when one pharmacist ceases to be responsible for the patient’s care, another pharmacist or health care professional accepts responsibility for the patient’s care.”<sup>1</sup>

A number of seamless care initiatives have been undertaken in the past few years, including projects by The Moncton Hospital, Moncton, New Brunswick; Concordia Hospital, Winnipeg, Manitoba; London Health Sciences Centre, London, Ontario; Calgary Regional Health Authority, Calgary, Alberta; and Aberdeen Hospital, New Glasgow, Nova Scotia.<sup>1,2</sup> Other significant projects have been undertaken by the Ordre des pharmaciens du Québec, Montreal, Quebec; St. Paul’s Hospital, Vancouver, British Columbia; and Wellesley Central Hospital, Toronto, Ontario.<sup>3</sup>

Although pharmacists in both the hospital and community settings are keen to provide seamless care, there continue to be many challenges and barriers that prevent full implementation of this practice across our profession. A significant barrier is the resources required. Hospitals have been under tremendous pressure to tighten departmental budgets, which has thereby limited resources for hospital pharmacists. In the community setting, pharmacists also have difficulty finding time to ensure seamless care. Another barrier is the lack of advocacy and buy-in from individual practitioners. A third barrier is the lack of patient education to promote and demand this practice.

The focus of the initiatives mentioned above is very much on improving and facilitating communication



between the hospital pharmacist and the community pharmacist, as well as health care providers in other settings, such as nursing homes and ambulatory clinics. Software tool kits and comprehensive paper discharge forms are being introduced to ensure that a patient's drug-related problems and other potential drug misuse, including noncompliance, are addressed when the patient is moving from one setting to another.

The other quality patient outcome from seamless care initiatives is safe medication use. Linking seamless care practice to safe medication practice is imperative in the shift from institutional health care to more ambulatory care. Patients are being discharged from hospitals to the community more quickly, which has necessitated more focused follow-up with those patients who still require considerable care.

Our professional organizations are working very hard to obtain more financial support from government agencies and are aiming to have seamless care accepted as a standard of practice. In the meantime, here are some suggestions recommended by both hospital and community pharmacists who have implemented various small projects and initiatives.

## Hospital Pharmacists

- If possible, prioritize patient groups for the purpose of the pre-admission medication history interview, in which the pharmacist has an opportunity to identify and discuss all medications that the patient is taking, including over-the-counter drugs and herbal remedies. Special high-risk patients, such as cardiovascular, geriatric, and oncology patients, should be given priority in this regard.
- Encourage patients and their families to bring all current medications, including prescription drugs, over-the-counter drugs, and herbal remedies, to the hospital on admission for identification purposes.
- Perform discharge counselling for all critical care and cardiovascular patients. In addition, all discharge medications should be clearly outlined in a special discharge form for the patient, the patient's family physician, and the community pharmacist. The form should also include information about the monitoring of any laboratory values, such as INR or blood levels of high-risk drugs, such as anti-epileptic and mental health drugs.
- Note the contact information for the patient's community pharmacist (with the patient's consent), and follow up with the community pharmacist on some of the key issues identified as part of seamless care.

- Educate patients about the potential risks associated with miscommunication among various health care providers. Encourage them to bring their discharge summary to the pharmacy where their prescription is to be filled and have it available as an additional check for the retail pharmacist.
- Encourage patients to have all their prescriptions filled at the same community pharmacy. Remind them to inform their regular pharmacy if there are prescriptions filled somewhere else.

## Community Pharmacists

The following recommendations were developed in collaboration with a community pharmacist (Paul J. Cavanagh, Cavanagh IDA Pharmacy, Jarvis and Hagersville, Ontario; personal correspondence, July 8, 2000).

- In receiving the patient's discharge prescriptions, check if there are discrepancies between the existing patient medication profile and the discharge medication list (new drugs and new dosages). If necessary, contact the hospital pharmacist for clarification.
- Ask the patient or his or her representative if a discharge summary was issued by the hospital and compare this with the discharge prescription(s) and the patient's pharmacy medication profile, with a view to spotting contradictions, ambiguities, omissions, and other potential problems. Look for potential sources of confusion such as differences in brand or generic names or differences in nomenclature between the discharge summary and the pharmacy-generated label.
- If samples are being provided to patients by their family physicians, ensure that labels with patient-specific directions and indications are attached to the sample container.
- Encourage software design companies to build features that enhance seamless care, such as the recording of changes and comments or notes in ongoing medication profile systems.
- Ensure that any communication with the patient's primary care provider occurs directly with the physician, rather than through a third party such as the receptionist.
- Provide a handy card for your patients outlining all medications, including over-the-counter drugs and herbal remedies. This information will be useful in case of emergency and on admission to hospital.

[Note: References appear on p. 146]



The special feature presented here is taken directly from *ISMP Medication Safety Alert!*, volume 6, issue 10, May 16, 2001.

### **There Is Much To Talk About during NCPIE's "Talk About Prescriptions Month!"**

October is Talk About Prescriptions Month, sponsored by the National Council on Patient Information and Education (NCPIE). ISMP joins NCPIE in promoting this year's theme, "Educate Before You Medicate: Knowledge is the Best Medicine." Yet, following such sound advice has become increasingly difficult for both patients and healthcare professionals. Even keeping track of prescribed therapy has become a formidable task. A study of elderly patients taking four or more prescribed drugs showed that primary care physicians could not accurately list all the medications taken by 75% of their patients, and disagreed with 86% of the drug schedules.<sup>4</sup> We've also received reports from practitioners who are concerned that drugs prescribed upon hospital discharge may not correlate with inpatient and preadmission therapy. This can lead to possible omissions, duplicate therapy, unrecognized drug interactions, and readmissions from adverse drug reactions. In fact, a recent article in *Pharmacy Practice News* noted that, in a community hospital, pharmacists needed to change nearly half of the discharge orders.<sup>5</sup>

It has also been a challenge to keep patients well informed about their drug therapy. Managed care companies may regularly change formulary drugs within drug classes. This had led to reports of patients accidentally taking both the new and discontinued medications. A change in drug therapy upon hospital discharge has likewise led to confusion regarding previously prescribed drugs. The risk of duplicate or unintended therapy is compounded because patients may be reluctant to discard older, sometimes expensive, medications on the chance of later being switched back to the drug. The misuse of prescribed drugs has also been problematic. The National Household Survey on Drug Abuse found that 1.4% of the general public acknowledged using prescription drugs not prescribed for them.<sup>6</sup> Another study showed that 6% of family practice patients had shared prescription drugs with family or friends.<sup>7</sup> Likewise, self-treatment with leftover antibiotics is prevalent. A random survey showed that 26% of respondents had

saved antibiotics from prescriptions not completed;<sup>8</sup> of those, half had taken the remaining antibiotics later without consulting a healthcare professional, and some had given the antibiotics to others. Such practices could lead to errors, drug or allergic reactions, and antibiotic resistance. Filling prescriptions can also be problematic. Patients may not realize that they should fill all prescriptions at the same pharmacy for proper screening. In other cases, reimbursement systems may require patients to obtain chronic drugs from mail order pharmacies and acute care drugs from local pharmacies. We recently heard of an error where a retail pharmacy automatically sent a patient a refill for verapamil, which had been discontinued during the patient's recent hospitalization. Unfortunately, the patient took the drug along with other cardiac medications and had to be hospitalized after losing consciousness. Finally, patients may not fill their prescriptions because they have exhausted their prescription limits or have no coverage. One physician told us about a patient who was too embarrassed to tell him that she could not fill her prescription for an antihypertensive medication until January, when her insurance limits renewed. Because her blood pressure was elevated, the physician increased the dose. Then in January, when the patient again had insurance coverage, she filled the prescription at the higher dose and suffered a significant hypotensive episode. If patients tell their physicians that they have limited ability to fill prescriptions, samples may be dispensed, which often do not include written directions as found on prescriptions filled by a pharmacy. See [below] for references and a list of "talking points" that healthcare professionals can use to improve communication about prescriptions.

### **Talking Points for "Talk About Prescription Month"**

- To keep track of prescribed therapy in the physician's office, design a drug profile to list all prescribed therapy (date, drug, dose, directions, number dispensed, number of refills), over-the-counter (OTC) drugs, vitamins, herbal and other alternative therapy, allergies, and height and weight. The profile could also include special monitoring prompts. Review and update the drug profile at each visit. (If electronic handheld devices are used for prescribing, they will also track patient prescriptions. See [the ISMP] web site at [www.ismp.org](http://www.ismp.org) for a white paper listing names of vendors).



- If a patient calls for a refill, use the drug profile as a ready source of information to evaluate underuse or overuse of the drug and the need for reassessment before refill.
- If the insurer requires a therapeutic change or prescribed therapy differs from that previously prescribed (e.g., at hospital discharge), provide the patient with written instructions about which drug is being replaced by the newly prescribed drug. Instruct the patient to discard the discontinued medication.
- Emphasize the danger in keeping leftover medications, self-medicating at a later time, and sharing any prescription medication with others.
- Ask the patient, family or caregiver to bring in all current medications, vitamins, herbal products and other alternative medications at each office or hospital visit for verification.
- To facilitate accurate drug therapy upon hospital discharge, obtain information about prescription and OTC drugs taken at home. Post a daily, pharmacy computer-generated medication summary on each patient's chart (listing current and discontinued medications) for physicians to reference, along with the preadmission drug list, when prescribing drugs at discharge.
- Establish criteria for an automatic consult to a pharmacist to educate hospitalized patients at risk (e.g., complex medication regimens, and patients being discharged on five or more prescription drugs).
- Tell patients to take all dispensed doses of antibiotics unless directed by the physician to discontinue the drug.
- Remind patients to obtain all prescriptions at the same pharmacy whenever possible and alert their pharmacist to any prescriptions dispensed elsewhere.
- Advise patients to request a phone or mail alert before accepting automatic refills. If patients have questions about continuing the medication,

instruct them to ask the pharmacist to call their primary care doctor.

- If samples are dispensed to patients, be sure that labels with patient specific directions and indications for use are attached to the sample container. Providing patients with package inserts is not sufficient.
- Many other practical tips for patients about safe medication practices can be found on [the ISMP] web site at [www.ismp.org](http://www.ismp.org) or through NCPIE at [www.talkaboutrx.org](http://www.talkaboutrx.org).

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