

## Measuring Hospital Pharmacy's Progress in Medication Safety

Every 2 years, the Hospital Pharmacy in Canada Annual Report collects information on hospital pharmacy practice in this country. For the 2003/04 report, surveys were sent to 195 hospitals, of which 186 qualified as participants (i.e., had 100 or more beds, of which 50 or more were designated as acute care). A total of 144 hospitals (77%) completed the survey.

In the annual reports for both 2001/02 and 2003/04, the special interest section focused on medication safety. Some interesting new information on this topic can be found within the designated medication safety section and in other key chapters to the report. To view the 2003/04 report and reports from previous years, see [www.lillyhospitalsurvey.ca](http://www.lillyhospitalsurvey.ca).

Any assessment of medication safety practices must first consider the extent and nature of the pharmacist's involvement in direct patient care, which is well recognized as a critical element in the prevention of adverse drug events. One

indicator of the provision of effective clinical pharmacy services is the proportion of pharmacists' time spent in direct patient care activities. In view of the increasing use of technology and a movement toward delegation of drug distribution activities to technicians, we would hope to observe an increase in the proportion of pharmacists' time dedicated to clinical pharmacy activities and a reduction in involvement in drug distribution and other non-patient-care activities. However, it appears that there has been little change in the proportion of pharmacists' time devoted to clinical activities: responses to the 2003/04 survey indicated that, on average, 38% of pharmacists' time was spent on clinical pharmacy activities (this value was 39% in 2001/02 and 38% in 1999/2000). In addition, 81% of respondents reported that clinical pharmacy services were not offered to some inpatients, with an average of 33% of inpatient beds not receiving coverage in these facilities. These findings may be partly associated with the current shortage of pharmacists: 63% of respondents reported that their respective institutions had at least one pharmacist vacancy as of March 31, 2004. On a positive note, another indicator of the provision of clinical



pharmacy services, the average number of reported interventions per admission, rose to 0.64 from 0.60 in 2001/02 and 0.53 in 1999/2000.

The 2003/04 survey was the first to ask respondents to rate various clinical services by priority and to characterize the same activities by the extent to which they are offered. The results revealed a striking discrepancy between stated priorities and the extent to which these services were offered by hospital pharmacies. For example, although the service of drug therapy monitoring and evaluation was given the highest priority by respondents, only 17% of respondents reported comprehensive provision of this service.

Information collected on drug distribution systems identified some progress toward safer systems. Combined responses from all survey participants indicated that overall, 65% of the beds in respondents' facilities were serviced by unit-dose, unit-based automated or controlled and carded dose systems. Although this represents an improvement over the 58% reported in 2001/02, it is clear that there is still considerable room for improvement: overall, an estimated 35% of beds in respondents' hospitals were serviced by traditional or total ward stock systems.

Some noteworthy information was collected in the section of the survey specifically dedicated to medication safety. All respondents to the 2003/04 survey reported use of a medication incident reporting system, and 67% reported that strategies had been implemented to increase reporting of incidents. Sixty-three percent of respondents reported having a policy on disclosure of incidents to patient and families. An increased awareness of a culture of safety was reflected by an 11% decrease in the percentage of respondents reporting that medication incidents can be used during performance assessments of individual health care providers. There was a notable improvement in the

area of allergy alerts, with 72% of respondents indicating that allergy status is known in at least 90% of cases before a medication is dispensed, up from 59% in 2001/02.

Seventy-two percent of respondents reported that concentrated electrolytes had been removed from patient care areas. With the intense professional and media attention focused on the dangers associated with inadvertent administration of potassium chloride, one might have expected this percentage to be much higher. Regional differences were evident: in Ontario, where the Institute for Safe Medication Practices Canada conducted a program in cooperation with the Ontario Ministry of Health and Long-Term Care and the Ontario Hospital Association, 96% of respondents reported that concentrated electrolytes had been removed from patient care areas. Fewer than half of all respondents (47%) reported that they had removed concentrated narcotics from patient care units, but this percentage reached 60% in Quebec, where deaths by respiratory arrest led to a coroner's investigation.

In summary, although the 2003/04 Hospital Pharmacy in Canada Annual Report has identified some progress toward the establishment of safer medication systems, its findings suggest continuing difficulty with achieving practice improvements according to documented evidence and lessons learned in other jurisdictions. Hospital pharmacists must strive to provide stronger leadership in the use of proven interventions and enhanced medication systems, to ensure patient safety.

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On behalf of the Editorial Board  
Hospital Pharmacy in Canada Annual Report 2003/04

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