Medication Safety Alerts

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MEDICATION SAFETY ISSUES IN SMALL COMMUNITY HOSPITALS

Although many medication safety issues are common to all hospitals, small community hospitals face different challenges and opportunities in their management of these concerns. In a small organization, pharmacists are able to develop close personal and professional relationships with medical and nursing staff, and other members of the health care team. This, in combination with fewer bureaucratic levels, makes problem solving and implementation of changes in practice easier and faster than in larger hospitals. However, pharmacists in small hospitals must be expert "multi-taskers" because they are often required to fulfill several roles concurrently. Even in facilities fortunate enough to have full-time coverage by pharmacists, it is often available only Monday to Friday. Pharmacists are often in sole-charge or part-time positions, requiring them occasionally to leave pharmacy technicians to work alone. Further, on-call coverage may be informal for after-hours issues. After-hours dispensing is generally covered by nursing staff who sometimes have unrestricted access to the Pharmacy Department. Lack of access to a pharmacist's expertise, however, can contribute to the occurrence of medication errors during off-peak hours.

This article discusses a community hospital example, identification of barriers and challenges to implementing medication safety initiatives, options for the application of medication safety initiatives, and future challenges.

The Rural Community Hospital Experience

The North Simcoe Hospital Alliance (NSHA) comprises an 80-bed acute care site at the Huronia District Hospital in Midland, Ontario, and a 51-bed complex continuing care, palliative care, and rehabilitation site at the Penetanguishene Hospital in Penetanguishene, Ontario. The total number of pharmacy staff for both sites is 5.6 full-time equivalents (FTEs): pharmacists, 2.2 FTEs; pharmacy technicians, 3.4 FTEs. Medications are provided by means of a traditional system in Midland and by unit-dose blister cards in Penetanguishene. Pharmacy technicians provide ward stock for both sites, checking all patient care medication-supply areas twice weekly. Meditech software provides pharmacists with immediate access to laboratory results and an option for programming computer alerts for specific medications. Pharmacists are able to access patient information from every hospital computer. The NSHA is progressing toward a fully electronic medical record: computerized charting was implemented in November 2003 for nursing and other professional staff, which will be followed by plans for provider-order entry at a future date.

Issues and Barriers to Safe Medication Use

In general, barriers to the implementation of medication safety strategies in hospitals include a lack of specific planning, scarce resources, complacency, and insensitivity to the inherent risks in the medication process. Fear of reprisal can be a significant obstacle to reporting incidents. Personal relationships may also influence sharing and reporting information.

In a small community hospital, pharmacists must manage a variety of responsibilities and are often more heavily involved in distribution functions than their counterparts in a larger facility. For example, at NSHA, in addition to administrative and risk-management

functions, the pharmacy manager is a dispensing or clinical pharmacist 4 days per week. Smaller facilities usually also lack formal evening and weekend coverage. It is the nursing supervisor's role to dispense medications after hours. The risk of medication errors may be higher without a pharmacist checking the medications dispensed. The lack of physician specialists may increase the need for pharmacists to provide drug-information support to physicians beyond that required in a larger centre, yet generally fewer pharmacists are available in smaller centres.

Because of multiple responsibilities and restricted resources, pharmacists are challenged to keep up with the current literature and trends in practice. Many pharmacists in smaller centres are not aware of the educational resources and support available from organizations such as the Institute for Safe Medication Practices (ISMP) Canada.

In most facilities, medication systems have evolved over time in response to changing needs or available funding. This evolution has often occurred without strategic planning, particularly in relation to patient safety. Assistive technology is often perceived as unattainable because of its higher up-front costs than those of other urgently required, often more glamorous, patient care equipment. The cost–benefit analysis of preventing error-induced patient injuries and of patient safety continues to be underappreciated when financial or fundraising decisions are made.

Minor medication errors that do not result in patient harm can increase feelings of complacency among staff involved in processing medications. Staff in any high-risk industry become desensitized to the potential for harm when tasks become routine; medication safety committees may be perceived as yet another time commitment in an already-full day.

Strategies to Improve Medication Safety at NSHA

Support from the hospital administration for a nonpunitive error-reporting process is critical to the achievement of increased reporting of medication incidents, particularly near misses in which no patient was involved or affected, and errors that are not perceived as serious. Any error may highlight a system problem. The removal of the requirement for staff involved in errors to sign the reports has improved the error-reporting rate at NSHA.

Recruitment of 4 nursing team leaders and a physician representative committed to the process has greatly enhanced the success of medication-error reporting and analysis. Involving front-line staff from the disciplines who use the medication system improves the process, as well as maintains consistent attendance at meetings. Individual medication-incident reports are reviewed by a multidisciplinary committee at each site. Recommendations are shared across sites through distribution of information to all pharmacy, nursing, and medical staff. For staff to accept the reporting process, the wide circulation of medication-incident report reviews was thought to be extremely important. Additional communications include the *ISMP Medication Safety Alert!*, *Nurse Advise-ERR*, pharmacy newsletters, and special memoranda, which are distributed by e-mail.

Orientation of new staff and students is an ideal opportunity to promote the medication safety message. New staff who are educated about strategies to improve medication safety and encouraged to report errors can help change the environment in patient care areas. At NSHA, a pharmacist is a regular presenter at nursing orientation and uses the video *Beyond Blame* (available from ISMP US at www.ismp.org) in the presentation.

When the Huronia District Hospital participated in the ISMP/Ministry of Health and Long-Term Care (MOHLTC) study Impact of ISMP Canada's Interventions for Improvement of Medication Use in Ontario Hospitals in 2002 to 2003, a multidisciplinary team, comprising representatives from pharmacy, nursing, medicine, and administration, completed the ISMP Hospital Medication Safety Self-Assessment, as a requirement of the study. This intensive examination included rating the Huronia District Hospital on 195 specific criteria in 19 categories that covered all aspects of its medication-use system. The initial review identified safety concerns that the hospital had not previously considered. A 1-year follow-up review indicated improvements in almost every category. The team concluded that increased awareness of specific issues was a major contributor to this success.

A specific intervention recommended by ISMP Canada during the study period was removal of potassium chloride concentrate from all patient care areas. At NSHA, this was a staged process, beginning with its removal from patient care areas except for the intensive care unit and emergency department, and progressing to its removal from all areas and the purchase of commercially available premixed potassium chloride solutions. This type of targeted intervention, evidence-based and well-supported by external organizations such as ISMP Canada, can provide a specific opportunity for hospitals to highlight medication safety.

Future Challenges

A significant challenge to implementing medication safety strategies in hospitals is the lack of financial resources to provide improved staffing and investment in technology, measures that have been proven to reduce errors. At NSHA, weekend and after-hours coverage remains a challenge. The hospital is interested in pursuing a unit-dose distribution system for acute care; however capital costs are high and there are many urgent, competing needs.

Conclusions

Rural community hospitals face specialized challenges. The NSHA has implemented a number of successful strategies to deal with these barriers and with concerns about improving the safety of medication use.

The lessons for the small community hospital are multiple. A nonpunitive policy is influential in promoting the reporting of medication errors. An active medication safety committee with representation from front-line staff is essential to deal with medication safety concerns. The results of committee incident reviews and recommendations must be distributed to relevant staff to ensure transparency and to demonstrate that reporting and input result in concrete actions. Pharmacists play a key role in educating stakeholders about current trends and developments in the discipline of medication safety. Staff orientation is an important opportunity for raising awareness. Smaller organizations can use opportunities to participate in research to advance knowledge and awareness of issues (for example, an ISMP Canada/ MOHLTC study involving a medication safety self-assessment tool for a structured review of practices). Finally, projects that target identified high-risk issues (such as the availability of potassium chloride concentrate) are a clearly understood and effective means of change.

Maintaining momentum and keeping medication safety issues in the forefront are ongoing challenges. There has been a shift in pharmacy practice to move pharmacists out of distribution functions and into stronger direct patient care roles and the provision of pharmaceutical care. It is imperative that pharmacists balance the needs of direct patient care and distribution programs, and continue to provide leadership and share responsibility for safe medication-use systems.

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