

Chapter 4

Section 4.10

Long-term-care Homes— Medication Management

Follow-up on VFM Section 3.10, *2007 Annual Report*

Background

Long-term-care homes, such as for-profit and not-for-profit nursing homes and charitable homes, provide care, services, and accommodation to individuals unable to live independently and requiring the availability of 24-hour care and supervision in a secure setting. There are more than 600 homes in Ontario caring for about 75,000 residents, most of whom are 65 or older. In the 2008/09 fiscal year, funding by the Ministry of Health and Long-Term Care (Ministry) to long-term-care homes totalled \$2.8 billion (\$2.8 billion in 2006/07), with residents generally also making a co-payment of between \$1,600 and \$2,200 (between \$1,500 and \$2,100 in 2006/07) per month for accommodation.

Residents of long-term-care homes usually have conditions requiring treatment with medication prescribed by a doctor. According to the Ministry, in the 2008/09 fiscal year it paid pharmacies about \$359 million (\$333 million in 2006/07) for more than 25 million drug prescriptions (19 million in 2006/07) dispensed for residents of long-term-care homes. As well, the Ministry's Ontario Government Pharmaceutical and Medical Supply Service provides certain drugs, such as acetaminophen (generic Tylenol), at no charge to long-term-care

homes. In 2008/09, the cost of such drugs was about \$5.2 million (\$3.4 million in 2006/07).

In our *2007 Annual Report*, we assessed whether medications for residents were managed in an efficient, safe, and controlled manner, in accordance with applicable legislation and required policies and procedures. Medication management involves physicians, pharmacists, and nurses contracted by the homes (see Figure 1). Our audit indicated that at all of the three long-term-care homes we visited—Hamilton Continuing Care in Hamilton, Leisure-world St. George in Toronto, and Providence Manor in Kingston—there were a number of procedures in place to ensure that the homes obtained physician-prescribed medications and administered them to residents in a safe and timely manner. However, we noted areas where these homes could improve their medication management practices. Some of our more significant observations included the following:

- At all three homes, documentation to indicate that informed consent was obtained from residents or their substitute decision-makers for the use of new medications was either nonexistent or inadequate.
- Two of the homes we visited were not doing an adequate job of reporting all medication errors, and during 2006 reported only 12 and 26 errors respectively. The identification and

Figure 1: Medication Management—Professional Responsibilities

Source of data: Ministry of Health and Long-Term Care

Physicians: Prescribe medications for long-term-care home residents and review the resident's care plan—including medications—on the basis of the physician's knowledge and skill and the clinical situation of an individual resident. Physicians are accountable to their regulatory body, the College of Physicians and Surgeons of Ontario.

Pharmacists: Dispense medications for long-term-care home residents on the basis of physicians' or other recognized health professionals' prescriptions and the pharmacist's knowledge of the resident and the prescribed drug, in accordance with provincial and federal legislation as well as in accordance with the standards of practice of their regulatory body, the Ontario College of Pharmacists.

Nurses: Apply their knowledge of the resident and the medication when assessing residents, administering medications, evaluating residents' reaction to medications, and planning and documenting the medication administration process, as per the Medication Practice Standard of the College of Nurses of Ontario. Nurses act as the liaison between the physician and pharmacist in relation to medication management for each resident, and collaborate with the health-care team in the long-term-care home to maintain safe medication-management processes.

review of medication errors is important in preventing similar errors in the future.

- We obtained and analyzed information on drugs dispensed to residents of all long-term-care homes through the Ministry's Ontario Drug Benefit Program. On the basis of this analysis, we noted that, during 2006, more than 5,700 residents of Ontario long-term-care homes were dispensed at least one of eight high-risk drugs that international experts have concluded are generally more harmful than beneficial to older adults. As well, at least 20% of residents in 30 homes were dispensed these drugs. While we acknowledge that medications are generally prescribed by physicians, we believe there may be situations where a high rate of use of such higher-risk drugs in certain homes may warrant some follow-up by the Ministry in conjunction with the College of Physicians and Surgeons of Ontario.
- Ninety-one percent of the 18,000 level-1 alerts (which warn of a drug combination that is clearly contraindicated and should not be dispensed or administered) generated by pharmacy computers were overridden and the drugs dispensed to residents of 421 long-term-care homes. While pharmacists may have contacted the prescribing physician to discuss these drug interactions prior to overriding the

level-1 alert, we believe some follow-up may be warranted given the high percentage of alert overrides.

- None of the three homes we visited periodically reconciled controlled substances administered to residents with records of drugs received from the pharmacy and those on hand.
- Processes to ensure that medications approaching their expiry date—including those in emergency supplies—are identified and removed from use upon expiry needed to be strengthened.
- Two of the homes did not consistently use environmentally responsible practices to dispose of unneeded medications.

We made a number of recommendations for improvement and received commitments from the three long-term-care homes we visited and the Ministry that they would take action to address our concerns.

Status of Recommendations

In spring and summer 2009, the long-term-care homes, as well as the Ministry of Health and Long-Term Care, where applicable, provided us with information on the status of our *2007 Annual Report*

recommendations. According to this information, the long-term-care homes had made substantial progress on several of our recommendations and at least some progress on most others. Although the Ministry had taken some action on the recommendations directed to it, in a few areas, the Ministry was waiting for recommendations from the Joint Task Force on Medication Management it convened in May 2008 before deciding what action to take. The recommendations were expected by the end of summer 2009. The status of the action taken on each of our recommendations at the time of our follow-up is as follows.

PROVISION OF MEDICATIONS

Recommendation 1

To help promote the safe and efficient provision of medication to residents, long-term-care homes should ensure that:

- *contracts with pharmacies specify the type and frequency of procedures the pharmacy is to perform, as well as the reporting methods to be used, with respect to assessing the home's compliance with medication-related policies; and*
- *consent to treatment with new medication is obtained and documented from either the resident, when capable of giving consent, or from the resident's substitute decision-maker in a timely manner.*

The Ministry of Health and Long-Term Care should review its policy on standing orders (which typically relate to over-the-counter medication) to determine if additional guidance is necessary.

As well, to help promote the health of residents, long-term-care homes, in conjunction with the Ministry of Health and Long-Term Care, should develop a consistent definition of what constitutes a medication error. In addition, long-term-care homes should ensure that medication errors are consistently identified, documented, and reviewed so that appropriate action can be taken on a timely basis to minimize similar occurrences in the future.

Status

At the time of our follow-up, one home had signed a new pharmacy contract when it changed its pharmacy provider in October 2007. Although the new contract now requires the pharmacy to conduct regular audits to review and monitor medication storage, administration, and documentation at the home, it does not specify the type and frequency of procedures the pharmacy was to perform or the reporting methods to be used. Another home indicated that, instead of revising its pharmacy contract, it had developed with its contracted pharmacy an annual plan of activities the pharmacy would perform. The third home commented that it was developing a reporting tool to consistently monitor the home's compliance with medication-related policies and procedures. It anticipated completing the tool in November 2009 and planned to include specific reporting requirements related to this in its next pharmacy contract.

With respect to consent to treatment, one home indicated that it had conducted staff training on the subject and had implemented periodic reviews of resident charts to ensure that consent is being obtained and documented for new medications ordered. Another home stated that it had held discussions on the role of its physicians and staff in obtaining informed consent, which resulted in reviewing and updating its policy and procedures for processing physician orders for medications. The home also revised its procedures so that medication order sheets receive a stamp within which nurses are to document that the resident or the resident's substitute decision-maker had been notified of a medication change. The third home developed a policy and procedure to ensure that consent for new medications is received in a timely manner. It also included on its record of physician orders for medications a place where staff are to indicate that the resident or his or her family has been notified about the treatment change.

At the time of our follow-up, all three homes had policies that contained a definition of what constitutes a medication error, although these policies

continued to vary among the homes. As well, all of the homes had policies to document and review medication errors. For example, one home indicated its quality council reviews medication errors monthly and its professional advisory committee reviews these quarterly. This home also noted that it takes corrective measures, such as staff education, if its policy on reporting medication errors is not being followed.

In May 2008, the Ministry convened a Joint Task Force on Medication Management including physicians and representatives from long-term-care homes and pharmacies. At the time of our follow-up, the Ministry informed us that the task force was examining larger system issues—which would not specifically include standing orders and medical directives—and would be making recommendations pertaining to the appropriate management of medications from a system perspective. The Ministry also indicated that the task force had examined the definition of medication errors used by selected institutions and jurisdictions, and had reviewed the definition of medication errors that are reportable on the Ministry's new Critical Incident System, which had been implemented in all homes by April 2008. The Ministry told us that the task force might have some recommendations on medication errors in its final report, which was expected by summer 2009.

REACTIONS TO MEDICATIONS

Recommendation 2

To help reduce the risk of adverse medication reactions in residents, long-term-care homes should:

- *ensure that residents more likely to experience adverse reactions—those taking a new higher-risk medication, for example—are monitored more closely than other residents and that results of this monitoring are documented;*
- *develop and implement policies to ensure consistent identification and documentation of adverse drug reactions, so that action can be taken to prevent future occurrences; and*

- *adopt consistent criteria for referring residents to specialized psychogeriatric programs and ensure that sufficient staff are appropriately trained in those criteria.*

In addition, the Ministry of Health and Long-Term Care, in collaboration with the College of Physicians and Surgeons of Ontario (CPSO), should periodically review the use of higher-risk drugs at long-term-care homes, as well as the frequency with which residents receive drugs with unique drug-to-drug interaction alerts, or alternatively provide access to this information to the CPSO and other appropriate regulatory bodies so that appropriate follow-up action can be taken where the use of higher-risk drugs and the frequency of pharmacist overrides of alerts seem unduly high.

Status

At the time of our follow-up, one home indicated that it had developed a psychotropic medication form to monitor the effect of new or changed doses of such medications on residents. According to this home, it documents this monitoring for seven days, during which time it would expect to identify any adverse reactions to medications. Another home stated its contracted pharmacy sends the home monthly a list of all residents receiving high-risk drugs. The home revises the applicable residents' care plans as necessary to identify risks and the interventions necessary to minimize potential adverse effects. The home also noted that its professional advisory committee reviewed high-risk medications in April 2009 and was developing a long-term plan to further address this issue. As well, this home indicated that, in January 2007, its contracted pharmacy began sending an adverse-drug-interaction alert along with a medication if the pharmacy was concerned about a potential adverse reaction. The resident's physician is to review this form, which is placed in front of the resident's medication-administration record so that staff giving medications are aware of the risk. The third home noted that its contracted pharmacist provides recommendations to physicians regarding

the use of high-risk medications and alternatives to their use. The home monitors more closely residents who take new high-risk medications and notes the effect of the medication in the resident's file. As well, the contracted pharmacist performs a medication screening quarterly and may make recommendations to the home's physicians on matters such as drug dose and drug interactions.

One home noted that, in October 2007, it implemented a policy on preventing and detecting adverse consequences of medications. Another home had revised its policy on readily identifying problems associated with newly marketed drugs. The third home also had policies in place to address adverse events. This home told us that it not only documents any adverse drug reactions residents have while in the home, but also any a new resident may have had prior to admission. The home also stated that it records adverse reactions in its incident-management system and notifies the contracted pharmacy.

At the time of our follow-up, one home had implemented a procedure for referring residents to specialized psychogeriatric services. It also indicated that it was continuing to offer opportunities for its registered staff to participate in specialized training provided by psychogeriatric consultants. Another home noted that two staff members were trained in a psychogeriatric program and work with residents who require a specialized program. One registered staff member accompanies the psychiatrist when he or she sees residents and follows up on his or her recommendations. The home also indicated that every second month it conducts "mini mental" tests—a short cognitive status test—with residents who have dementia. The third home's revised policy indicated that its nursing management team was to discuss incidents of unacceptable resident behaviour and, when necessary, make referrals to the psychogeriatric resource person and psychogeriatric outreach team.

At the time of our follow-up, the Ministry indicated it expected all long-term-care homes to implement a common assessment tool by 2010. This

tool is to provide homes with drug-related quality indicators—such as residents taking nine or more different medications—which will enable care providers to identify for increased monitoring residents with a higher risk of having adverse medication effects. The tool is also expected to generate reports on the impact of certain medications. The Ministry also indicated that over 400 homes had registered to complete the Medication Safety Self-Assessment for Long-Term Care developed by the Institute for Safe Medication Practices Canada. One of the homes we audited noted that it had completed the self-assessment and, at the time of our follow-up, was using the results to further improve its medication management practices.

With respect to periodically reviewing the use of higher-risk drugs in collaboration with the College of Physicians and Surgeons of Ontario, the Ministry indicated that it intended to share information with the appropriate stakeholders once it received the recommendations of the Joint Task Force on Medication Management, expected by end of summer 2009.

SAFEGUARDING MEDICATIONS

Recommendation 3

To better safeguard medications against possible theft or accidental misuse, long-term-care homes should:

- *ensure that staff access to drugs is limited as much as practicable, and in accordance with legislation and standards, regardless of where the medications are stored; and*
- *periodically reconcile records of drugs administered with those received and on hand for narcotics and other drugs that may be more susceptible to theft (such as benzodiazepines), and take immediate follow-up action if the reconciliations indicate unaccounted-for narcotics.*

Status

At the time of our follow-up, one home had implemented a policy stating that registered staff, such as nurses, could only pass their keys, which grant

access to medications, to other registered staff. Keys were not to be given to unregistered staff members, such as personal support workers. This home also told us that it has only two sets of keys available to access the medication carts, which further limits the number of staff with access. Another home noted that, at the time of our follow-up, all of its medication carts required a key to open them, rather than having a combination keypad. The third home stated that its managers periodically verify that medication carts and storage rooms are kept locked when not in use and follow up with the applicable nurse if a problem is noted.

Furthermore, one home noted that, commencing in June 2009, its contracted pharmacy was performing a reconciliation of the narcotics administered with those received and on hand for one resident each month. Another home indicated that it has implemented a reconciliation process for all benzodiazepines so that these are recorded on a benzodiazepine count sheet and counted at shift change along with the narcotics. The third home stated that it decided not to revise its narcotics policy and that it does not periodically reconcile records of drugs administered with drugs received and on hand. It added, however, that its contracted pharmacy completes biannual audits of narcotics.

EXPIRED MEDICATIONS

Recommendation 4

To help ensure that residents receive safe and effective medications, long-term-care homes should implement processes to ensure that medications approaching expiry are identified and removed from use upon expiry.

In addition, to ensure that adequate (but not excessive) levels of medications are available when needed, long-term-care homes should establish minimum reorder levels and maximum order quantities for medications in the emergency drug stock and for medications supplied by the Ontario Government Pharmaceutical and Medical Supply Service in accordance with resident usage.

Status

At the time of our follow-up, one home indicated that its pharmacy was conducting monthly reviews of its emergency drug stock, bi-monthly reviews of medications supplied by the Ontario Government Pharmaceutical and Medical Supply Service, and quarterly reviews of all other medications at the home to identify and remove ones approaching expiry. As well, the director of care was monitoring the home's emergency drug stock and medications supplied by the Ontario Government Pharmaceutical and Medical Supply Service. Another home revised its policies to require staff to check the expiry date on medications prior to administering them. The third home indicated that it trained staff on placing "date opened" stickers on all eye drops, insulin, and other medications, as required. It also told us that its pharmacy monitors its emergency drug stock and replaces medications due to expire. Furthermore, the home noted that it was conducting weekly reviews of its drug carts and medication rooms to ensure the removal of any expired medications. It also indicated that its pharmacy conducts monthly reviews, which, the home noted, had identified no expired medications as of the time of our follow-up.

To help ensure that adequate (but not excessive) levels of medications are available for residents, one home established minimum and maximum amounts for all emergency drug stock medications and medications supplied by the Ontario Government Pharmaceutical and Medical Supply Service. Another home was using the minimum quantities that could be reordered as established by the Ontario Government Pharmaceutical and Medical Supply Service and had established amounts of each drug that should be in its emergency drug stock. It was doing this instead of establishing minimum reorder levels and maximum order quantities in accordance with resident usage. The third home told us that it was conducting periodic audits of supply orders to ensure that excessive amounts of drugs were not being ordered. It noted that it had established maximum quantities to have on hand

of government pharmacy supplies. As well, this home indicated that it was reviewing its inventory of government pharmacy supplies before ordering additional medications, which it noted would also help ensure that there were no thefts. It had also established amounts of each drug that should be in its emergency drug stock, and was reordering drugs to bring the quantity on hand to these levels.

DESTRUCTION OF EXCESS MEDICATION

Recommendation 5

To help minimize medication waste and potential misappropriation, as well as to promote the efficient and environmentally responsible disposal of excess medication, long-term-care homes should:

- *in conjunction with the Ministry of Health and Long-Term Care and the Local Health Integration Networks, review ways to streamline the drug-tracking and -destruction process while retaining sufficient safeguards over this process; and*
- *periodically monitor staff to ensure that they are following accepted policies for disposing of expired and excess medication.*

While developing regulations for Bill 140 (the new act on long-term-care homes), the Ministry of Health and Long-Term Care should also consider the feasibility of alternatives such as those used in other jurisdictions with respect to the destruction of unopened packaged medications that are still usable.

Status

At the time of our follow-up, one home indicated that it was continuing to use a contracted service to ensure the efficient and environmentally responsible disposal of excess medications. As well, this home noted that it was supporting ongoing learning opportunities for registered staff regarding

safe medication practices, and that such practices were included in the performance management of registered staff. Another home stated that it had made no changes to assess the extent to which medications are wasted. However, the home indicated that it has held meetings with staff and managers responsible for medication management to remind them of the accepted policies for disposing of expired and excess medications, and it has informed its health and safety committee members of these policies. The third home noted that it had streamlined its drug-tracking and -destruction process and had trained staff on this process. It had also held staff education on environmentally friendly processes for the destruction of narcotics.

At the time of our follow-up, the Ministry indicated that, through its compliance program, it was ensuring that medication disposal was being conducted according to the standards and policies set out in the legislation and regulations that govern long-term-care homes. The Ministry noted that it had consulted its Joint Task Force on Medication Management while developing the regulations for Bill 140. The Ministry posted the first draft regulation for comment in May 2009 and expected to post a second regulation later in the year, which is to cover the area of medication management. However, the Ministry told us that, although it had considered options such as those used in other jurisdictions with respect to the destruction of unopened packaged medications that are still usable, it had concluded that the unopened packaged medications returned from long-term-care homes should be destroyed. It stated this is because the World Health Organization's guidelines indicate that only drugs that have not been previously dispensed are considered acceptable for donation.