Medicine safety: a report from the Health Quality & Safety Commission

SEVENTEEN SERIOUS MEDICINE ERRORS were reported in our hospitals during 2009/10, and this is likely to only be the tip of the iceberg.

Dr Janice Wilson, Health Quality & Safety Commission's Chief Executive, says medicine errors are an ongoing and potentially serious cause of patient harm, and improving medicine safety is one of the Commission's top priorities in 2011/12.

"We know that the medicine errors are not just happening in hospitals – they are also occurring in primary care settings, although we know relatively little about these errors."

Most medicines are prescribed, dispensed and used in primary care settings. For example, in the United Kingdom, one-fifth of the annual prescriptions for medicines (0.5 million) are written in hospitals and four-fifths are written in the community (two million).

Medicine errors feature prominently in reports of iatrogenic harm, from various countries.[1] In Australia, for example, medicine errors in primary care settings have been shown to be a leading cause of hospital admissions, particularly in the elderly population.[2]

Several studies have estimated the rates of errors on prescriptions. Estimates range from between less than 1% to 11% of all prescriptions, depending on the definitions used.[3]

Error rates seem to be lower for dispensing medicines than for prescribing, administering or monitoring medicines. For example, one study found an average of 26 dispensing incidents for every 10,000 items dispensed in community pharmacies (an error rate of 0.1%). Of these incidents, 22 were classified as near misses, where the error was discovered before the medicine was given to the patient, and four were classified as dispensing errors, where the wrong medicine was given to the patient.[4]

New Zealand studies have indicated that each transition point in care can generate errors of about 25%, e.g. on admission to, or discharge from, hospital.[5] Not all errors result in adverse events, and some will be picked up before medicines are dispensed or administered. Adverse medicine events in hospital settings add an average of 7.5 days to a patient's stay in hospital and impose additional financial costs on the health system.

Dr Wilson says the Health Quality & Safety Commission will lead and coordinate the health sector's implementation of the Medication Safety programme. This programme aims to reduce harm from medicine errors and improve medicine management systems in hospitals, general practice, pharmacy, residential aged care facilities and the wider health and disability sector.

In 2011/12 the Commission will focus on:

- Completing the roll-out of a national adult medication chart

- Completing the roll-out of a medicine reconciliation process for the times when care settings change (e.g. between primary care and hospitals)
- Working with the National Health IT Board to accelerate the e-medication programme, which will make information about patient medicines available electronically to all health professionals working with that patient
- Reporting on adverse drug events.

Dr Wilson says the national medication chart and the medicine reconciliation process being rolled out by District Health Boards have the potential to greatly reduce medicine errors.

"The national medication chart is a relatively simple but effective way to reduce medicine errors and is expected to be in place in most public hospitals by January 2012," she says.

Dr Wilson says that once use of the national medication chart is widespread within DHB hospitals, the Commission will review the chart features needed for paediatric and long stay (hospital) patients and then turn its attention to primary care, with a focus on aged care.

Likewise, the use of a formal medicine reconciliation process will make sure that patient medicines are checked at critical handover points, also helping to reducing errors.

"The Commission is focusing on medicine errors in hospitals at the moment but is also looking to expand that work to include medicines reconciliation at discharge," Dr Wilson says.

"The aim is to provide better and more accurate discharge information about patient's medication to primary care. We want to work across the health sector, including primary care, to make improvements in this area."

Work is on-going, in conjunction with the electronic medicine reconciliation pilots, to format the electronic discharge summary to include medicines on admission, medicines on discharge and the reason for any change.

An electronic prescribing service is also being trialled in the community, with the aim of improving patient safety by making prescriptions more accurate; by reducing manual data entry and therefore transcription errors; and by the ability to send status updates to the prescriber if requested, e.g. to notify a doctor that a prescription has been collected.

"The New Zealand Prescription Service enables General Practitioner prescriptions and hospital discharge prescriptions to be sent to community pharmacists electronically," Dr Wilson says.

"A key project is the New Zealand Prescription Service trial, which is the first phase of a national roll out. The trial will

run for about 12 months and will involve multiple phases, vendors and geographic locations."

The Commission welcomes bpac^{nz}'s establishment of an incident-reporting database for primary care. In addition, the New Zealand Pharmacovigilance Centre is in the pilot phase of trialling a medication incident reporting system targeting primary care and linked to the Centre for Adverse Reactions Monitoring (CARM).

Dr Wilson says New Zealand has an excellent health system by international standards and most people are treated safely and effectively. A small number, however, experience preventable events either in hospitals or in primary care settings.

"The challenge for us all is to improve our systems and processes so that fewer errors occur, and to learn from the mistakes that do happen. It's about improving the way we do things so that people experience safe, good quality health care whether it's at their General Practice, the local pharmacy, in a rest home, or at hospital."

www.hqsc.govt.nz

References

1. Wilson RM, Runciman WB, Gibberd RW, et al. The quality in Australian health care study. Med J Aust 1995;163:458-71.
2. Roughead EE, Gilbert AL, Primrose JG, Sansom LN. Drug-related hospital admissions: a review of Australian studies published 1988 – 1996. Med J Aust. 1998;167(8):405-8.
3. Sanders J, Esmail A. The frequency and nature of medical error in primary care: understanding the diversity across studies. Fam Pract 2003;20:231-6.
4. Ashcroft DM, Quinlan P, Blenkinsopp A. Prospective study of the incidence, nature and causes of dispensing errors in community pharmacies. Pharmacoepidemiol Drug Saf 2005;14:327-32.
5. DHBNZ Safe and Quality Use of Medicines Group. Safe and Quality Use of Medicines National Strategy 2005. Auckland: SQM.