

Conducting a Best Possible Medication History and Resolving Medication Discrepancies in the Community

Certina Ho, RPh, BScPhm, MIST, MEd; George Bodoni, RPh, CGP; Karen Chuk, RPh, BScPhm; Nelson DaSilva, RPh, BScPharm;
Rehana Khan, RPh, BScPharm, MASCP; Jim Snowdon, RPh, BScPhm, PharmD, FACA



Background

The 2004 Canadian Adverse Events Study has shown that 7.5% of hospitalizations resulted in adverse events, with 37% of these being preventable (Baker et al., 2004).

Medication discrepancies may occur at any transitional points of patient care (admission, transfer, or discharge) and potentially lead to medication incidents and adverse drug events.

Studies have shown that medication reconciliation (which involves the process of conducting a best possible medication history (BPMH) and resolving medication discrepancies), at surgical preadmission clinic (Kwan et al., 2007), emergency department (Kent, Harrington, & Skinner, 2009), and hospital discharge (Wong et al., 2008), can help prevent these discrepancies from happening.

At the community level, there are multiple facets of health care (home care, long-term care, complex continuing care, etc.) involved. A systematic process is necessary to identify and resolve medication discrepancies in order to ensure patient safety.

Objectives

In Ontario, community pharmacists have been offering *MedsCheck*, a medication review service supported by the Ministry of Health and Long-Term Care, to patients since 2007.

MedsCheck is a valuable opportunity for community practitioners to perform a BPMH with patients, catch, prevent, and resolve medication discrepancies during this 30-minute patient interview.

Methods

Participants: **5 community pharmacies in Ontario**

Baseline data collection took place in a two-month period in 2008 where pharmacists' usual *MedsCheck* practice was captured.

A training session entitled "[Enhancing MedsCheck: Conducting a BPMH and Resolving Medication Discrepancies](#)", which outlines structured procedures to perform BPMH (collaboratively with patients, family, or caregivers, and other health care professionals) and document medication discrepancies, was administered.

Post-training data collection, which involves the type and frequency of medication discrepancies identified and resolved during *MedsCheck*, was conducted for four months afterwards.

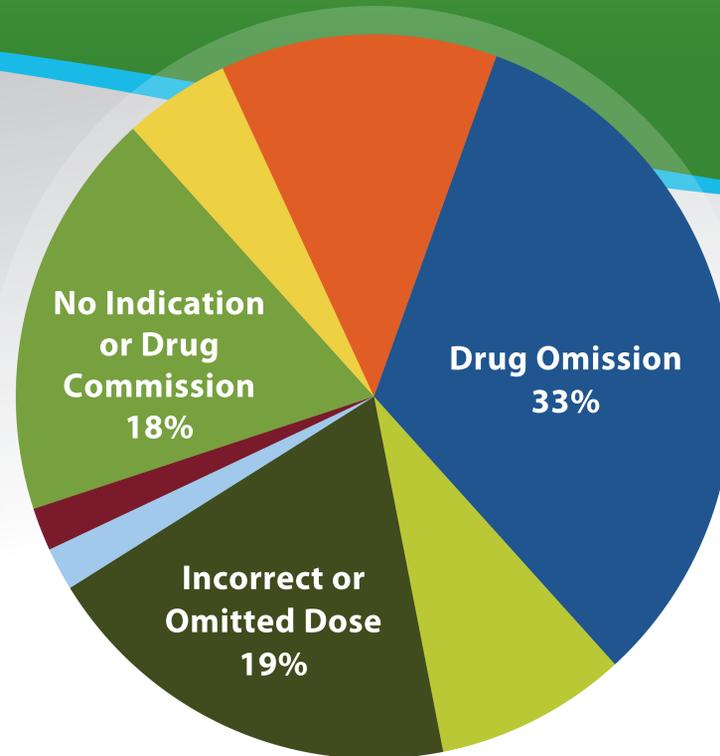
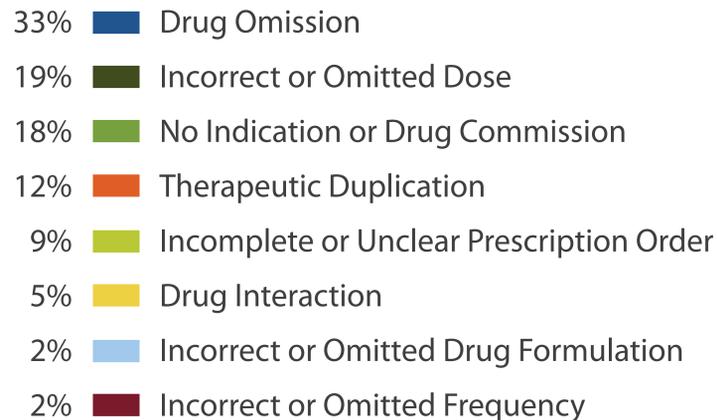


Figure 1. Type of medication discrepancies



References

- Baker, G. R., Norton, P. G., Flintoft, V., Blais, R., Brown, A., Cox, J., et al. (2004). The Canadian Adverse Events Study: the incidence of adverse events among hospital patients in Canada. *CMAJ*, 170(11), 1678-1686.
- Dolovich, L., Gagnon, A., McAiney, C. A., Sparrow, L., & Burns, S. (2008). Initial pharmacist experience with the Ontario-based *MedsCheck* program. *CJP*, 141(6), 339-345.
- Kent, A. J., Harrington, L., & Skinner, J. (2009). Medication reconciliation by a pharmacist in the emergency department: A pilot project. *Can J Hosp Pharm*, 62(3), 238-242.
- Kwan, Y., Fernandes, O. A., Nagge, J. J., Wong, G. G., Huh, J. H., Hurn, D. A., et al. (2007). Pharmacist medication assessments in a surgical preadmission clinic. *Arch Intern Med*, 167, 1034-1040.
- Wong, J. D., Bajcar, J. M., Wong, G. G., Alibhai, S. M. H., Huh, J. H., Cesta, A., et al. (2008). Medication reconciliation at hospital discharge: Evaluating discrepancies. *Ann Pharmacother*, 42, 1373-1379.

Acknowledgements

- **Medico-Dental Pharmacy**, Ottawa
- **Pharmasave Monarch Pharmacy**, Cambridge
- **Princess Margaret Hospital Outpatient Pharmacy Team**, University Health Network, Toronto
- **Snowdon Pharmacy**, Toronto
- **Toronto General Hospital Clinic Pharmacy**, University Health Network, Toronto

Results

Baseline Period (2 months)

43 *MedsCheck* medication reviews:

- 15 minutes to prepare before *MedsCheck* interview
- 31 minutes to interact with patient during *MedsCheck* interview
- 12 minutes to document after *MedsCheck* interview

Some of the barriers encountered were consistent with previous studies (Dolovich et al., 2008), for example:

- Lack of pharmacist time in the usual workflow or scheduling process
- Insufficient patient awareness or acknowledgement of the *MedsCheck* service offered by pharmacists

Posting-Training Period (4 months)

- 119 *MedsCheck* medication reviews
- 8 types of medication discrepancies were captured and resolved (Figure 1)
- 104 medication discrepancies documented
- 3 most common types of medication discrepancies
 - Drug omission (33%) (mostly non-prescription and herbal medications being omitted)
 - Incorrect or omitted dose (19%)
 - Medications with no indication or drug commission (18%)
- Results correspond to findings in previous studies performed in institutional care settings (Kent et al., 2009; Kwan et al., 2007; Wong et al., 2008)

Conclusion

Community pharmacy practitioners are positioned at the intersections of various transfer points of patient care. They are the gatekeepers to look for, prevent, and resolve medication discrepancies.

The *MedsCheck* personal medication record can serve as a passport, equipped with the patient's BPMH, and travel with the patient as they move from one care setting to another in the health care system.

The value of pharmacist's capturing and avoiding discrepancies (and subsequently reducing adverse drug events) using a systematic process through this medication review service should be widely promoted and explicitly presented to patients and the public.

This project was supported by the Ontario Ministry of Health and Long-Term Care.