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THERAPEUTICS INITIATIVE Evidence Based Drug Therapy

therapeutics letter

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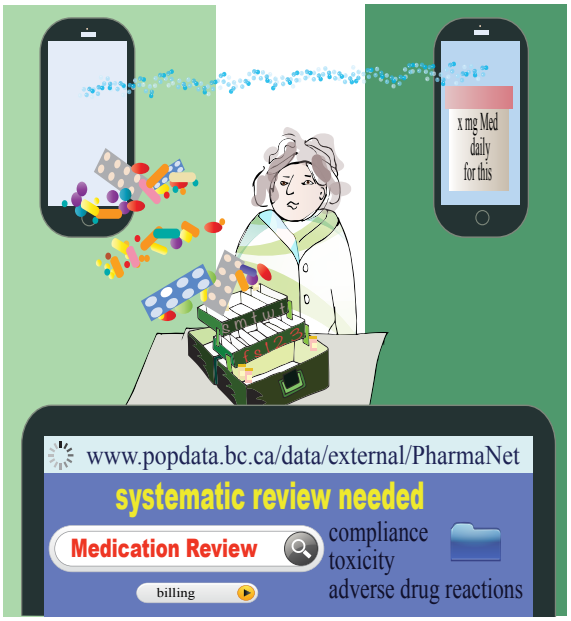
Does Medication Review improve health?



Medication Review (MR) involves a structured and comprehensive assessment of a patient's medications with the aim of identifying and resolving problems in order to improve health.[1] It is different from Best Possible Medication History (BPMH), which is limited to documenting a list of a patient's prescribed and non-prescription medicines using multiple reliable sources of information.[2]

What is the evidence?

In a recent systematic review, Medication Review as compared to usual care had a positive impact on drug-related outcomes (decrease in the number of drug-related problems, more changes to drug list, more drugs with dosage decrease and a greater decrease or smaller increase of the number of drugs). However, it did not have an effect on mortality, hospital admissions/healthcare use, the number of patients falling or physical and cognitive functioning.[3] In another systematic review of pharmacist-led Medication Review there were beneficial effects on unproven surrogate markers: glycemic indices, blood pressure, lipid levels, medication adherence, and resolution of drug-related problems/adverse drug reactions. However, there was no effect on mortality or hospitalization.[4]

What is happening in BC?

In 2011, the BC Ministry of Health began compensating community pharmacists for conducting medication summaries: $60 for a BPMH to be discussed with the patient, $70 for a BPMH with communication to prescriber (MR), and $15 for a follow-up of a previous MR. To be eligible, patients need to be receiving ≥5 medications (prescription and non-prescription) for at least 6 months and reviews can only be repeated (and billed) every 6 months.

An analysis of this BC program in 2013-14 found that with >300,000 interventions at a cost of $16 million/year, 98% did not involve communication with the prescriber to resolve or discuss possible drug-related problems. The program did not lead to a reduction in drug expenditure, improved adherence, nor to deprescribing of potentially inappropriate medications.[5]

How could the quality of Medication Review in BC be improved?

A grant from the College of Pharmacists of BC supported the Therapeutics Initiative to conduct interactive workshops between prescribers (physicians and nurse practitioners) and pharmacists. The aim was to encourage interprofessional collaboration and to identify ways to improve the quality of Medication Review in BC. Twelve workshops were conducted in various communities (92 physicians, 15 nurse practitioners, 66 pharmacists, and 13 academic detailing pharmacists attended the workshops). Key issues identified by participants were:

Table 1: Medication Review issues identified by physicians

Were unaware of the current MR funding program
Most had never seen the results of a pharmacist-led MR
Most welcomed the opportunity to discuss MR with pharmacists
Recognized that pharmacists had access to unique information about patients (insight into adherence, signs of toxicity, reporting of adverse drug reactions)
Wanted a more efficient way for pharmacists to communicate MR results (e.g. electronic)
Most did NOT have access to Pharmanet in their office to aid with MR
Most were unaware of the ability to bill for time spent discussing MR with pharmacists

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Table 2: Medication Review issues identified by pharmacists

Were surprised to hear about physician willingness to discuss MR
Felt disadvantaged because they did not have access to patients' medical history and lab results
Stated time was the most important barrier to conducting full MR and communicating with prescribers
Wanted a standardized tool for completion of MR, which would help in communication with prescribers

Practical recommendations to improve the quality of Medication Review in BC

- **Indication-based prescribing:** Prescribers write the indication or goal of therapy for each prescription (e.g. telmisartan 80 mg once daily to reduce high blood pressure). If the prescription is written with directions, the pharmacist will include this on the prescription label. This could improve communication between prescribers, pharmacists, and patients; reduce prescribing errors (e.g. dosing errors); and increase patients' understanding of their drug therapy.[6]
- **Set-up PharmaNet access in prescriber offices:** Pharmanet www.popdata.bc.ca/data/external/PharmaNet is an online, real-time system that captures all outpatient prescriptions for drugs and medical supplies dispensed from pharmacies in BC. In addition, physicians may record medications provided to patients during an office, clinic or emergency department visit. Few physicians have access to Pharmanet in their office, although the cost is minimal, setup is easy, and training their medical office assistants to prepare a Pharmanet profile was very valuable.
- **Utilization of billing codes by prescribers:** Physicians seldom use billing codes to communicate the results of Medication Review with pharmacists. Information can be found at www.gpscbc.ca/what-we-do/longitudinal-care/billing-guides. For example, a physician can use code 14077 (phone or in person patient management consult with pharmacist or allied health professional, $40 for 15 minutes or greater portion thereof) or code 13005 (phone or fax with pharmacist or allied health professional, applicable to patients receiving community care, and includes residential, intermediate or extended care).
- **Medication Review is an opportunity to reduce the burden of polypharmacy:** Therapeutics Letter 90 stated "from 1998-2008, Canadian seniors taking more than 5 prescription drugs doubled from 13% to 27-30%. A patient taking more than 10 drugs was once an anomaly. Now this applies to 4% of British Columbians age 85 or older and 31% take at least 5 drugs. Rates of polypharmacy are much higher in long term care."[7] Conducting thoughtful Medication Review presents the perfect opportunity to reduce unnecessary polypharmacy. The approach to drug deprescribing outlined in Therapeutics Letter 90 can serve as a template in BC.[7] Lemay and Dalziel also outline a logical approach to deal with potentially inappropriate medications in the elderly.[8]

Table 3: Further Medication Review considerations

Conduct a randomized controlled trial of patients receiving MR versus usual care
Facilitate and mandate Pharmanet access in all prescribers' offices
Train and certify practising community pharmacists to conduct BPMH with communication to physicians (MR)
Reverse the funding model to pay less for BPMH without communication to physicians

Conclusions

- Medication Review is an unproven intervention that has the potential to improve health outcomes and therefore needs to be evaluated in randomized controlled trials.
- Clinicians need time, tools, and training to conduct quality Medication Reviews.
- Medication Review in British Columbia could be enhanced if physicians increased utilization of Pharmanet, expanded indication-based prescribing, and made more use of billing codes for Medication Review.

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The draft of this Therapeutics Letter was submitted for review to 60 experts and primary care physicians in order to correct any inaccuracies and to ensure that the information is concise and relevant to clinicians.

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