The pharmacist's role in successful deprescribing through hospital medication reconciliation

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MEDICATION RECONCILIATION IS THE PROCESS OF ensuring that the patient's current medication list is accurate and complete during transition of care.¹ Many of the adverse effects caused by medication discrepancies are preventable.^{2,3} As medication reconciliation is done to prevent errors in omission, duplications, dosing or drug interactions,¹ it is an important means of patient harm reduction.⁴

Deprescribing is the planned and supervised process of dose reduction or discontinuation of medication(s) that may cause harm or are no longer providing benefit.⁵ An accurate and complete medication list is necessary for an informed deprescribing care plan that accounts for all problematic medications and medication interactions.⁶ Moreover, medication reconciliation explores the patient's adherence, which is essential when considering the efficacy and safety of the patient's medications.⁷

Medication reconciliation in deprescribing goes beyond attaining medication information from a single source. On hospital admission, the hospital pharmacist, pharmacy technician or nurse obtains a complete list of the patient's medication (including over-the-counter medications and natural health products) from community pharmacy/pharmacies, the patient, caregiver and the family physician. On hospital internal transfer or discharge, the hospital pharmacist disseminates the updated medication list to all members within the patient's circle of care.

Pharmacists should play an active role in discharge medication reconciliation, especially in patients with multiple medication adjustments and health care providers. During the inpatient hospital stay, the pharmacist is aware of the patient's clinical progression and designs and implements a deprescribing care plan accordingly. With extensive insight into the patient's

clinical background, hospital pharmacists should champion the safe transition of medication therapy from the hospital back to the community.

Winchester District Memorial Hospital (WDMH) provides an inpatient rehabilitation service. Deprescribing in this unit facilitates monitoring and adjustment of care plans to address the return of symptoms, withdrawals and pharmacokinetic and pharmacodynamic changes. Eleven patients were enrolled in the deprescribing pilot program following discharge from rehabilitation. We compared hospital admissions 6 months prior to the deprescribing intervention and admissions 6 months after the deprescribing intervention. In this study, hospital readmission went from 10 visits (prior to intervention) to 2 visits after intervention. Out of 56 deprescribed medications, 44 were eliminated, 12 were dose reduced and 9 were switched to a safer alternative. Postdischarge deprescription reversal occurred in only 5 out of 56 deprescribed medications. Anecdotally, other positive outcomes included improved cognitive function, higher alertness and reduced confusion. Most patients exhibited improved physical stability and independence, and many demonstrated a reduction in anticholinergic side effects such as dry mouth and constipation. Successful dose reduction or cessation of opioids led to reports of improved bowel function among several patients. Also, several patients experienced improvements in hypotensive episodes after deprescribing.

The success of this deprescribing study was due in part to careful medication reconciliation during hospital admission and discharge. Medication reconciliation involves informing all members of the patient's circle of care of medication changes, thereby ensuring continuity of care. Communication to all parties enhances the quality of care as

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each member contributes his or her unique perspective and patient information. In addition, the coordinated approach fosters a unified care plan among all care providers, which reduces frequent changes to the patient's medication.

To facilitate the continuation of care after deprescribing during discharge medication reconciliation, all players (i.e., the attending, family and specialist physicians, hospital and community pharmacists and patients and their caregivers) within the patient's circle of care must be involved. The following points describe the roles of all players and how these contribute to the success of deprescribing. Each point also outlines how the hospital pharmacist can coordinate communication between different parties to implement deprescribing care plans.

1. While the patient is admitted to the hospital, the attending physician provides clear documentation of patient diagnosis, including supporting lab results, imaging and objective assessment tests. Nurses and physiotherapists document information on patient progress while in hospital. Through regular follow-up with the patient and communication within the interdisciplinary team during the stay, the hospital pharmacist is familiar with the patient's past medication history and history of presenting illness. The hospital pharmacist provides recommendations to deprescribe medications that may contribute to adverse effects and increased risks of hospitalization. The hospital pharmacist also makes recommendations to optimize therapy for the patient's health conditions. The hospital pharmacist may not be able to identify deprescribing candidates due to lack of initial patient information on admission. Nurses and attending physicians, recruited to a deprescribing program, would identify candidates and notify the hospital pharmacist for deprescribing assessment. When necessary, the hospital pharmacist facilitates the exchange of patient information between the family and attending physicians. The family physician provides information about the patient's medical and medication history to the attending physician. The hospital pharmacist, in collaboration with the attending physician, discusses medication changes with the family physician. Occasionally, disagreement may occur between the hospital pharmacist and the attending physician on a deprescribing strategy or opportunity. The pharmacist must then clarify and document the deprescribing rationale.
2. A specialist physician provides recommendations that may provide solutions to complex clinical presentations. The hospital pharmacist, in cooperation with other physicians, could elicit recommendations from speciality physicians and relay specialist opinions to other physicians.
3. Medication changes are communicated to the patient and caregivers. Their cooperation and understanding of medication changes is important for successful deprescribing. Discharge counselling on medications conducted by the hospital pharmacist has been shown to improve medication adherence.⁸ Importantly, the pharmacist obtains informed consent from the patient to enroll in the deprescribing program. The patient must approve of the deprescribing care plan prior to its implementation. If a caregiver is necessary, he or she must also agree and understand how to implement the changes, in order to prevent adverse effects associated with medication administration errors. The hospital pharmacist relays the care plan to the patient and caregiver, after agreement by the patient's physicians. The pharmacist elicits possible concerns from the patient and

caregiver and relays these concerns to members of the patient's circle of care.

4. The community pharmacist monitors for adverse effects and adherence to medication changes. He or she may document possible adverse effects after medication deprescribing. The hospital pharmacist explains the rationale of the medication changes and discusses possible anticipated adverse effects.

Although acquiring and disseminating a complete and accurate medication list is the basis for providing safe and optimal medication therapy, this essential step is sometimes overlooked by pharmacists. Hospital pharmacists, when given the opportunity, should proactively coordinate communication among health care providers encountered by the patient in various settings.

A high level of trust and interprofessional collaboration is required for this proposed multidisciplinary approach of medication reconciliation. Nonetheless, the pharmacist's role in coordinating

medication reconciliation may serve as the first step to establish such collaboration. As a catalyst in exchanging patient information among members of the patient's circle of care, the pharmacist's efforts in promoting informed clinical decisions and in reducing medication errors would be appreciated by all members. While pharmacists may not have the resources and time to coordinate detailed medication reconciliation for every patient, in patients with numerous health care exposures that may alter their medication list, a comprehensive medication reconciliation could reduce harm and result in successful medication deprescribing for the patient. The Winchester District Memorial Hospital deprescribing team is reaching out to community members and physicians around Winchester to make sure that deprescribing is available to outpatients as well. Since the end of December 2018, we have received several referrals from community physicians requesting admission of their overmedicated patients for deprescribing. ■

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