

CLINIC-BASED PHARMACISTS: THE MISSING LINK

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Introduction

'Take At Home Medicines' (TAHM) including antiemetics, antidiarrheals, corticosteroids and Granulocyte Colony Stimulating Factor are crucial in the management of adverse effects of antineoplastic treatments in cancer patients. Omission or inappropriate use of these agents can negatively impact patient experience and result in adverse drug reactions (ADRs).

In the outpatient Oncology Clinic at Sir Charles Gairdner Hospital (SCGH), a tertiary hospital in Western Australia, pharmacists screen and verify all prescribed chemotherapy regimens on the Oncology Information Management System (MOSAIQ). However, pharmacists are not currently involved in reviewing TAHM and providing medication education to patients due to limited resourcing.

Objectives

- Determine the incidence and types of actual and potential medication-related issues associated with TAHM.
- Determine the impact of the identified medication-related issue(s) on patient safety and outcomes.



Image 1. Pharmacist-led TAHM education in an outpatient clinic.

Methodology

MOSAIQ, iPharmacy and medical records were utilised to conduct a retrospective qualitative review of a random sample of patients receiving new intravenous (IV) chemotherapy between January 2021 and December 2021. The incidence of inappropriate prescribing (deviation from approved chemotherapy guidelines) and omission of TAHM were recorded. All patient records on MOSAIQ were reviewed to identify reports of ADRs, TAHM non-compliance, inappropriate use of TAHM and any other issues pertaining to TAHM.

Results

Of the 117 records reviewed (52% female; average age= 63 years), 68% (80/117) of patients' TAHM were prescribed as per protocol and 50% (59/117) of patients took their medications as prescribed. 44 patients (38%) experienced one or more medication-related issues which led to suboptimal patient care, as defined in Figure 1 and Figure 2, respectively. Furthermore, only 14% (16/117) of patients dispensed their TAHM at SCGH, further reducing the opportunity for specialist hospital pharmacists to provide medication counselling.

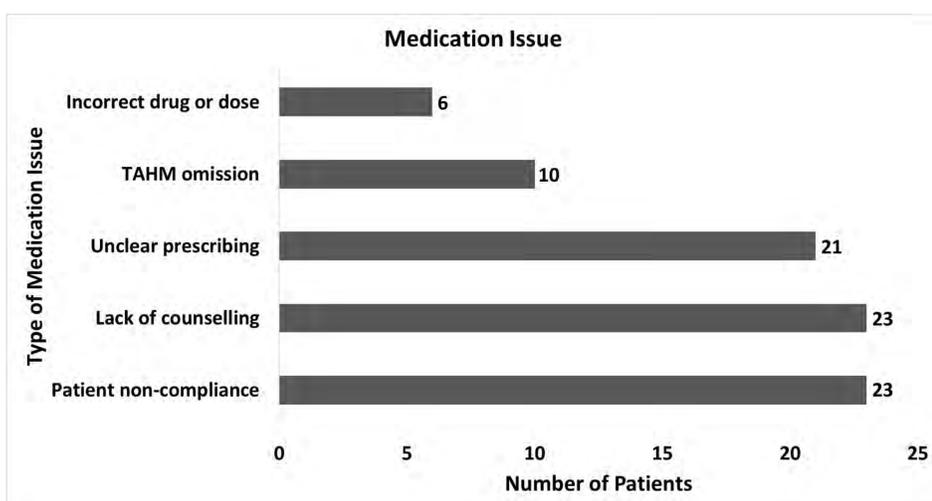


Figure 1. Lack of counselling and patient non-compliance were the most frequently identified issues.

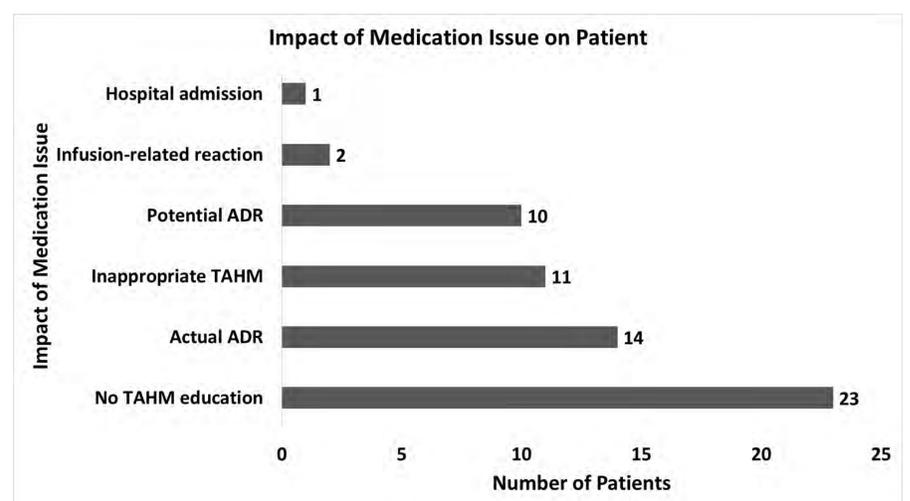


Figure 2. The issues identified in Figure 1 resulted in compromised quality of care.

Case Studies

Case 1. Hypersensitivity Reaction

Issue: Patient X was not prescribed pre-medications in clinic and missed taking loading doses of oral dexamethasone prior to docetaxel infusion. This was identified by the nurse on the day of treatment and IV dexamethasone was administered.

Outcome: Despite the IV dexamethasone, patient developed a hypersensitivity reaction.

Missing link: A clinic-based pharmacist can be a valuable resource in educating patients on the importance of pre-medication, potentially reducing the incidence of infusion-related reactions.

Case 2. Medication Omission

Issue: Patient Y did not receive scripts in clinic for antiemetics and corticosteroids for pre- and post-chemotherapy use and this was discovered by the nurse on the day of treatment.

Outcome: Patient could have experienced a hypersensitivity reaction, nausea and/or vomiting without the appropriate TAHM. Nursing staff spent extra time arranging last minute scripts which delayed other patients' appointments.

Missing link: A clinic-based pharmacist could ensure patients receive scripts and counselling pre-treatment, allowing for an efficient process for all healthcare providers and a better patient experience.

Case 3. Inadequate Counselling

Issue: Patient Z received antiemetics for high-dose cisplatin treatment but did not take any due to confusion regarding their use.

Outcome: Patient experienced severe nausea and vomiting due to not taking antiemetics as prescribed.

Missing link: A clinic-based pharmacist could supply medicines information in simple, patient-friendly language to enhance the patient's understanding of their TAHM. This may reduce the incidence of ADRs resulting from incorrect use of appropriately prescribed medicines.

CONCLUSION

Patients taking chemotherapy supportive medicines for the first time are at risk of medication misadventure due to inexperience, particularly if they have not received adequate education, or if prescribers fail to prescribe the recommended TAHM. The findings of this study support the need for greater pharmacist oversight to guide prescribers and help patients understand and adhere to their TAHM regimens. A pharmacist-led medication counselling clinic as part of the SCGH outpatient oncology services can improve patient safety and health outcomes by bridging the gap between patient comprehension and prescriber intent.