

# Optimising Discharge Services for Haematopoietic Stem Cell Transplant Patients by Expanding the Oncology Technician Role

Samantha Psaros<sup>1</sup>, Annika Morrow<sup>1</sup>, Laura Marshall<sup>1</sup>, Courtney Oar<sup>2</sup>  
 1. Epic Pharmacy, The Wesley Hospital, Auchenflower, QLD  
 2. Icon Group Pharmacy Practice Unit, QLD

## Background

Haematopoietic Stem Cell Transplant (HSCT) patients are discharged from hospital with complex medication regimens differing from standard prescribing. Traditionally HSCT discharge medication services were performed by pharmacy staff untrained in this area and medication supplies were limited to the standard 7 days.

## Aim

Expand the oncology pharmacy technician role to improve pharmacy discharge services to HSCT patients.

## Methods

Baseline data was collected by performing a retrospective analysis of HSCT discharges between April and June 2017. Hospital and pharmacy medical records were used and 18 patients were identified.

The following were measured:

- Appropriateness of indications, directions and advice on the pharmacy discharge medication record (DMR) checked against the HSCT protocol
- Duration of supply of discharge medications provided, measured against the standard seven days' supply routinely provided on discharge

Workflow changes were made within the pharmacy department [see Figure 1].

Standardised HSCT-specific dosing directions, indications and advice were developed by the oncology pharmacist team leader for commonly prescribed HSCT supportive care medicines. Based on this material, the oncology pharmacy technician was then responsible for the entry and set-up of HSCT-specific dispensing codes within the dispensing program and HSCT-specific indications and advice within the DMR program [see Table 1]. The oncology pharmacy technician was also responsible for confirming the date of the patients' next outpatient appointment with the clinic, ensuring adequate supply of medicines until this date.

DMR and Hospital records were analysed for the same period of 2018 to measure the impact of the technician role expansion. 11 patients were identified.



Figure 1. Workflow for HSCT-patient discharge service utilising the expanded oncology pharmacy technician role

**Haematopoietic Stem Cells** are immature cells that can develop into all types of blood cells. Hematopoietic stem cells are found in the peripheral blood and the bone marrow.

**Haematopoietic Stem Cell Transplants** are frequently performed in patients who have cancers affecting the blood or bone marrow (e.g. Multiple Myeloma, Leukaemia). The transplant re-establishes Hematopoietic function.

Default information (pre-implementation)		Drug	HSCT-specific information (post-implementation)	
Directions	Indications and Advice		Directions	Indications and Advice
Take ONE tablet daily until course complete	To treat or prevent shingles. Take regularly. Drink plenty of fluid. Headache and nausea may occur.	Valaciclovir	Take ONE tablet daily for prevention of viral infections  **Do not stop taking unless advised by your specialist	To prevent viral infections while your immune system is weakened following stem cell transplant  **Continue for 3 months post-transplant unless otherwise directed by your specialist.  Headache and nausea may occur.

Table 1. Example of HSCT-specific directions, indications and advice

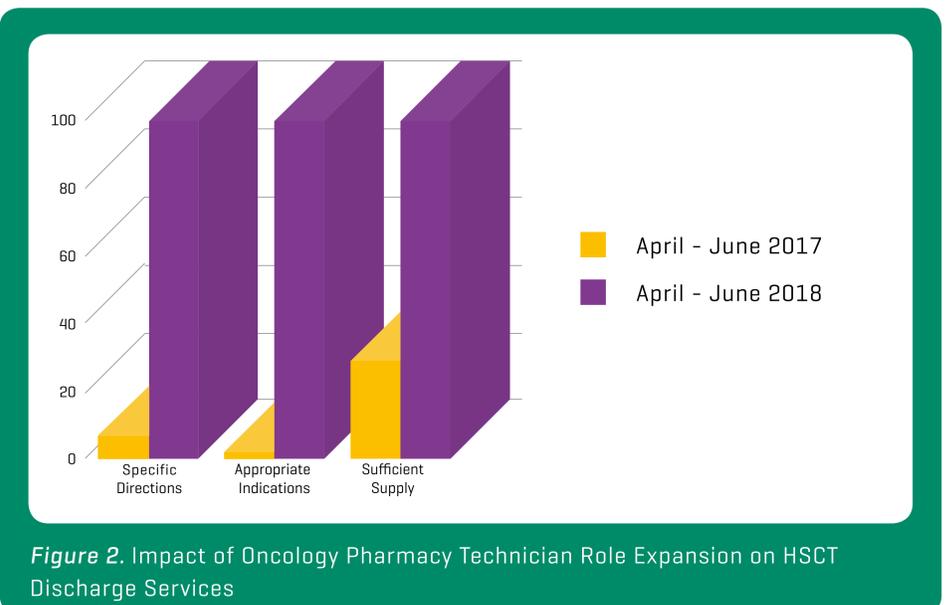


Figure 2. Impact of Oncology Pharmacy Technician Role Expansion on HSCT Discharge Services

## Results

Pre-implementation data for HSCT patients in 2017 showed:

- 7% of DMRs contained directions specific to HSCT
- 2% contained indications and advice specific to their treatment protocol
- 29% of discharges provided sufficient quantities of medication until their next outpatient clinic appointment

Post-implementation of the oncology technician role, data for HSCT patients in 2018 showed:

- 100% of DMRs contained directions specific to HSCT
- 100% contained indications and advice specific to their treatment protocol
- 100% of discharges provided sufficient quantities of medication until their next outpatient clinic appointment

## Discussion

Whilst the new practice showed a change in discharge information supplied to HSCT patients, the analysis was limited by not collecting patient and/or pharmacist feedback to evaluate the full impact of this change. Feedback may have been able to identify an increase in patients' understanding and compliance with their HSCT discharge medications which may have added greater significance to the findings. It would have also been beneficial to quantify any time saving factors with the implemented workflow changes.

## Conclusion

Expansion of the oncology pharmacy technician role to support discharges for HSCT patients has improved the quality of pharmacy discharge services and general dispensary discharges workflow.