## CHEMOTHERAPY REVIEW CLINIC – A COLLABORATIVE CARE MODEL FOR **AMBULATORY CANCER PATIENTS**

# Singapore Healthcare Management 2016

Vivianne Shih, Lim Su Wen Department of Pharmacy, National Cancer Centre Singapore



## INTRODUCTION

Cancer patients have always been reviewed by their primary oncologists prior to the initiation of each cycle of chemotherapy. This is to ensure that symptoms experienced during the previous cycle are adequately addressed and laboratory criteria are met before proceeding with the next cycle of chemotherapy.

### **RESULTS & DISCUSSION**

A total of 712 patients (1293 cases) were reviewed. Interventions were made for 133 cases (10.3%) and

- However, with the increasing patient load at the outpatient clinics, it becomes a pressing issue to source for an alternative model of care. It is crucial to ensure that limited resources are best utilised, continuity of care and satisfaction of care delivery are being maintained for patients.
- Oncology pharmacists can work with oncologists, in a collaborative care model whereby patients are reviewed by pharmacists. Patients would be assessed if they are fit to receive chemotherapy and to ensure that symptoms experienced at the previous chemotherapy cycle have been adequately addressed.

acceptance rate was 98.5%. The reasons for interventions are shown in Fig 1. Post review, 3.6% of cases were seen at the walk-in clinic at NCCS and 3.3% required hospital admission.



Management of adverse effects

- Dose adjustment according to laboratory values or adverse effects
- Others eg require further investigations / work up, scheduling etc

Fig 1: Reasons for Interventions

- The relatively low intervention rates (~1 in 10) implied that with appropriate screening and referral of patients by oncologists, this collaborative care model is feasible. Furthermore, the rates of hospital admission and/or unscheduled clinic visits were kept to a minimum (< 5%) each).
- Besides, this model of care translated to an estimated

## **OBJECTIVE**

To investigate the safety and acceptability of a collaborative care model in ambulatory cancer patients.

## METHOD



• Study period was from Jan to Dec 2015.

• Study was approved by the SingHealth Centralised Institutional Review Board (CIRB). Waiver of consent was obtained.

- During patient consult, pharmacists would assess the following • Any uncontrolled adverse effects experienced since the last chemotherapy cycle.
- To educate patients on symptom management for adverse effects & when to seek medical attention.
- Any unscheduled visits to walk-in clinic at NCCS and/or admission

SGD\$44,000 in direct cost savings for patients.

- Majority (92.5%) were satisfied with this model of care and similarly, oncologists (N=25) were satisfied (75%) strongly agreed). Main reason cited for referral (80%) was to reduce patients' waiting time at the outpatient clinics.
- Patients would also benefit from recommendation provided by pharmacists, gain knowledge and confidence in the management of chemotherapy adverse effects.



Study Design, **Duration of Study & CIRB** approval

Patient Consult &

Assessment

to the Singapore General Hospital were documented.

• To ensure that patients' laboratory criteria were met for chemotherapy and drug doses prescribed were appropriate for their organ function.

• Number of interventions conducted by pharmacists.

• Patient safety with this collaborative model of care. This was estimated using number of patients who had unscheduled walk-in visits to clinics and/or admissions to the hospital after pharmacist's consult.

**Outcome measures** 

• Cross-sectional surveys were conducted for patients and oncologists to assess their level of satisfaction for the service. • Cost savings for patients.

## CONCLUSION

The chemotherapy review clinic, the first of its kind in the local oncology setting has demonstrated that a collaborative care model for ambulatory cancer patients is not only safe but acceptable by both patients and oncologists.