Evaluation of Clinical Pharmacy Services in Children Cancer Centre and Bone Marrow Transplant Unit at Prince of Wales Hospital

Wong AN, So KHR, Chan MCG, Lee SCB.
Department of Pharmacy, Prince of Wales Hospital.

Keywords:
clinical pharmacy
service evaluation
paediatric oncology
users satisfaction

Introduction
Oncology clinical pharmacy service has been in place at the Prince of Wales Hospital (PWH) since late 2011. The service has extended to Children Cancer Centre (CCC) and Bone Marrow Transplant Unit (BMT) since January 2015. In the new setting, clinical pharmacists verify all chemotherapy orders and attend ward rounds in CCC and BMT; they identify drug-related problems (DRP) and make interventions when necessary.

Objectives
The study aims to describe the clinical pharmacy services provided to CCC&BMT at PWH; to assess the clinical significance of pharmacists' interventions; and to evaluate the users' satisfaction.

Methodology
A retrospective, descriptive statistical analysis was performed on the data collected from April to December 2015. The clinical significance of the pharmacists' interventions from a randomly selected month was rated by a physician and three pharmacists. Users' satisfaction was assessed using a questionnaire.

Result
During the period of April 2015 to December 2015, 155 patients were under the care of clinical pharmacists at CCC&BMT. A total of 481 chemotherapy prescriptions were verified; 75 drug information enquiries were ; 314 interventions were documented, of which 70 involved chemotherapy agents; 227 involved non-chemotherapy agents; 11 involved both types of agents; and 6 involved no drugs. The problems identified in the interventions were related to treatment effectiveness (58%), adverse drug reaction (ADR) (25%), treatment cost (14%) and others (3%). Acceptance rate was observed to be higher in chemotherapy-related interventions (97.5% vs. 86.1%, p=0.033). Overall physician’s acceptance rate of interventions was 88.9%. In clinical significance assessment of all 53 interventions documented in November 2015, the
overall mean rank of interventions was 2.17 ± 0.37 (1=Extremely Significant; 6=Adverse Significant). The response rate of users’ satisfaction survey was 86%. Participants included nurses (63%) and physicians (37%) from CCC&BMT. Overall mean score of the 12 aspects of clinical pharmacy services was 1.85 ± 0.15 (1=Excellent; 5=Poor).