An Audit to assess the incidence, the type and the value of pharmacy interventions carried out in an oncology inpatient ward in Queen Elizabeth Hospital

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Introduction
With the extensive drug knowledge and training provided, clinical pharmacists act as a gate-keeper and are in a valuable position to enhance medication safety. Clinical pharmacists can directly monitor medication charts and provide drug information and interventions. They also enable close follow up on any drug-related problems (DRP) through direct contact and observation of patients on ward. However the value of clinical pharmacists is difficult to measure and is seldom explored. To enable better monitoring and documentation of pharmacist’s clinical activities, a system has been established in QEH pharmacy to document all DRPs identified by clinical pharmacists during ward visits.

Objectives
This audit was conducted to assess the incidence and type of clinical pharmacist interventions, and to assess the value of clinical pharmacists in providing clinical services and patient care.

Methodology
Medication chart reviews were performed for patients in a 40-bed female oncology ward in Queen Elizabeth Hospital from Jan-Dec 2013. Details of interventions were recorded systematically and interventions were classified using Pharmaceutical Care Network Europe (PCNE) Classification for drug related problems. Each DRP was then assigned a severity index by two pharmacists. Results were then analyzed.

Result
A total of 2161 medication charts were reviewed upon admission. Among 89523 drug items reviewed, 361 DRPs were identified. The main causes of DRPs were related to prescribing (42.7%), of which 68.8% were due to omission of prior-to-admission (PTA) drugs; ‘pharmacokinetic problem requiring dose adjustment’ (9.7%), and ‘inappropriate timing of administration and/or dosing intervals’ (9.7%), which was mainly related to renal dose adjustments and drug interactions respectively. Focusing on cancer-related drugs, gefitinib, dexamethasone and erlotinib were the top three drugs involved, with number of interventions being 15, nine and nine respectively. A total of 93.6% therapeutic recommendations were made to prescribers, amongst which 91.4% were accepted. For severity index rating, 86.4% interventions were rated as significant or above. Among 11 interventions classified as serious, seven were related to patient being prescribed a drug to which patient was allergic or had cross-allergy. Others were related to the prescribing of drugs which could exacerbate the patient’s condition. Clinical pharmacist interventions were highly accepted by prescribers. The role of clinical pharmacists in improving prescription safety was shown. Findings of this audit, emphasizing medication safety, have been shared among pharmacy colleagues and prescribers for learning, system improvement and culture building.