Introduction
Chemotherapy treatment is a high risk procedure. The Oncology Clinical Pharmacy service can enhance safety of chemotherapy. Central funding was allocated with three deliverables: 1) clinical screening of protocols; 2) patient education on first cycle of chemotherapy; and 3) protocol review. The oncology clinical pharmacy service was started in November 2011. The service is supported by patients, doctors and nurses. However, it has not been reviewed on the effectiveness. This study is designed to review the service and make recommendations for continuous service improvement.

Objectives
To review the effectiveness of manpower resources for service development

Methodology
This is a retrospective study. Patient records were retrieved to look for traits of clinical screening and counselling. Protocol review was based on internal documents.

Result
Results There was a significant increase in protocols being screened on the oncology ward in November 2013. 80 out of 102 (78%) records were screened whereas 20 out of 107 (19%) in November 2012 (p-value < 0.01). Patient counselling was significantly increased in May 2014 (84%) versus 51% in November 2012 and 54% in November 2013. Patient counselling on oral chemotherapy was also increased from 0%, 16%, and to 66% in May 2014. Initially, patient counselling was based on referral. When the service was well-established, patients were proactively recruited by pharmacists. The protocol review exercise started in March 2013. 98% protocols were reviewed by May 2014. Discussion The oncology pharmacy service was started in November 2011. Manpower was increased from one pharmacist to one and a half pharmacists and up
to two pharmacists in January 2014. With the injection manpower, a higher percentage of deliverables were achieved. It shows that manpower is the essential element for the service. Deliverables have to be achieved with sufficient manpower. Although no extra manpower was introduced between November 2012 and 2013. The percentages of deliverables are also increased. The workflow was modified during this period. For example, we have established a screening system to identify patients newly started on oral chemotherapy. We can then recruit more patients to the service than relying on the referral from doctors. With modification of workflow, the service can be delivered more effectively. To conclude, manpower and appropriate workflow design are important for service delivery.