



## Service Priorities and Programmes Electronic Presentations

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### **Impact of Oncology Clinical Pharmacist's Counselling on Treatment Adherence to Capecitabine**

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#### **Introduction**

Capecitabine has been widely used in the treatment of various malignancies, including colorectal cancer, breast cancer and gastric cancer. In its 2003 report on medication adherence, the World Health Organization (WHO) quoted that among patients with chronic illness, approximately 50% did not take medications as prescribed, leading to increased morbidity and medical costs. The more complicated the drug regimen, the lower the compliance rate. In a recent report of capecitabine adherence rate in colorectal cancer patients, the treatment compliance rate is 85%. The complicated doses and administration schedules of capecitabine often become a barrier to patients' drug adherence, thus affecting cancer treatment outcomes. Capecitabine requires administration within 30 minutes after meals; prescribed dosages may entail the use of multiple tablet strengths and most regimens adopt a 2-week on, 1-week off treatment cycle.

#### **Objectives**

To evaluate the impact of the drug education by oncology pharmacists on patients' treatment adherence to capecitabine therapy.

#### **Methodology**

At Princess Margaret Hospital in Hong Kong, patients who are started on capecitabine-based chemotherapy regimens are referred to the oncology pharmacist clinic for drug counselling. This is a retrospective observational analysis of patients prescribed with capecitabine-based chemotherapy from August 1st 2016 to March 31st 2017 using data from the Clinical Data Analysis and Reporting System (CDARS). Retrospective analysis was conducted in May 2017. Medical notes in the Electronic Patient Record (ePR) were accessed to determine treatment adherence including the correct number of tablets administered, administration time, and any reported missing doses.

## **Result**

From the period of August 1st 2016 to March 31st 2017, a total of 237 patients who had commenced on capecitabine-based chemotherapy at Princess Margaret Hospital and had received pharmacist counselling on their first cycles were evaluated. Fifty-five patients were excluded from the study due to lost to follow up (n=41), treatment discontinuation (n=8), and death (n=6) at the time of analysis. Treatment adherence was assessed through in-person or telephone consultation on subsequent cycles for these 182 patients. The overall treatment adherence rate, as defined by taking both the correct dosage at the correct time, without any missed doses, was 88% (n=161). The non-adherence cases included missed doses (33%, n=7), incorrect administration time (19%, n=4) and self-stopping treatment (48%, n=10). Of the ten patients who stopped their own treatment without consultation with the doctor, nine were due to intolerant side-effects and one was due to subjective concern of interactions with their concurrent medications. At the follow-up visits, the 21 non-adherence cases were immediately given reinforcement on drug administration and/or education on the addition of supportive medications to treat adverse effects. Of these patients who were reassessed, 14 patients subsequently adhered to treatment leading to an increase in adherence rate from 88% to 96%. The 7 remaining patients were either lost to follow up or treatment was discontinued by the physician due to intolerance.

At Princess Margaret Hospital, the majority of patients (96%) demonstrated a high rate of adherence to the capecitabine-based chemotherapy regimen as a result of pharmacist's counselling, compared to the recently reported 85% adherence rate without pharmacist's counselling. Reinforcement on drug administration and the use of supportive medications was effective in rectifying the non-adherence cases. Drug education by pharmacists is vital to ensuring the optimal use of oral chemotherapy agents.