

## Clinical Research in Cancer Supportive Care

By

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Asst Prof Chan (far right) and his research team.

Cancer supportive care is the prevention and management of the adverse effects of cancer and its treatment. Through conducting clinical research, Asst Prof Alexandre Chan and his team members tackle the existing gaps in cancer supportive care.

In certain patients who receive chemotherapy, they suffer from a serious adverse effect called neutropenic fever, which is the manifestation of fever with low white blood cells. Neutropenic fever is particularly serious because the body's normal defenses against infections are down, and occurrence of fever must be evaluated immediately. Generally, these patients require hospitalization and initiation of antibiotics. It is known that, the use of granulocyte colony-stimulating factor (G-CSF) can reduce the occurrence of neutropenic fever. However, due to the high costs of these drugs, judicious usage of G-CSF is highly warranted.

Published in the journal *Supportive Care in Cancer* 2011, Asst Prof Chan and his colleagues evaluated the usage of G-CSF to prevent neutropenic fever and complications among early stage breast cancer patients receiving a novel cocktail named 'TC' (consisted of two agents, docetaxel and cyclophosphamide) at National Cancer Centre Singapore (NCCS). This highly impactful study supports the routine administration of G-CSF in patients receiving 'TC' to reduce the occurrences of neutropenic fever, as the incidence of neutropenic fever can be as high as 25% among those who do not receive G-CSF with 'TC'.

Another side effect that commonly disturbs patients receiving chemotherapy is nausea and vomiting, which is often regarded as the most feared adverse effect among cancer patients receiving chemotherapy. Despite the availability of new antiemetics, many patients are still suffering from such adverse effect after receiving chemotherapy.

Recently, 'Xelox' (a cocktail of two drugs, capecitabine and oxaliplatin) is gaining popularity in the treatment of gastrointestinal cancers at NCCS. It was unknown, however, whether 'Xelox' may cause overt nausea and vomiting. Therefore, Asst Prof Chan and colleagues designed a study to evaluate the efficacy of antiemetics to protect patients from nausea and vomiting after receiving 'Xelox'. A total of 156 patients were evaluated, and despite administering antiemetics routinely, a high (50%) proportion of patients experienced severe nausea from 'Xelox'. Hence, there is an urging need to improve the prevention of nausea and vomiting in this group of patients. This work was presented at the Singapore General Hospital Annual Science Meeting in April 2011, and the study was awarded for the Best Oral Paper in the Allied Health Category.



**Asst Prof Chan (right) receiving the Best Oral Paper at the Singapore General Hospital Annual Science Meeting from Dr William Hwang, Chairman of the Organizing Committee.**