Use of clinical pathway in emergency room achieves standard door to needle time and potential idea for improving manpower efficacy.

Wong LS, Luk MY, Wong ST
Department of Clinical Oncology

Introduction
Neutropenic fever in patients receiving chemotherapy is a medical emergency and should be treated promptly within 1 h with antibiotics as international standard. Establishment of clinical pathway with emergency department is a cornerstone for providing world standard care, however, difficulties encountered for cross departments clinical pathway.

Objectives
To determine door-to-needle time (DNT) for patients with febrile neutropenia who presented to the Emergency Department in Queen Mary Hospital before and after the use of clinical pathway. To identify potential measure for improving manpower use.

Methodology
It is a retrospective observational audit. Patients on treatment for solid cancers who were admitted through AED with febrile neutropenia between Nov 2013 and Oct 2014 were identified, and paper and electronic medical records were analyzed to determine door to needle intervals.

Result
Before the implantation of pathway, during Nov 2013- Apr 2014, 14 cases admitted AED for fever after chemo, 9 of them are neutropenic febrile cases, mean DNT 334 minutes. Mean DNT for non-neutropenic febrile patients are 220mins. Since the implementation of the pathway, during May 2014-Oct 2014, 16 cases admitted AED for fever after chemotherapy, 4 of them are neutropenic febrile cases, mean DNT 50
minutes. Mean DNT for non-neutropenic febrile patients are 47 minutes. No false negative case (patient that didn’t have the chemotherapy alert card or didn’t bring along the card to emergency room) for febrile neutropenia, however, 1 patient developed fever after chemo not being identified by AED with DTN 253 minutes. There is significant improvement to world standard care for patients with febrile neutropenia since the implementation of pathway. However, we do recognize problem for potential false negative case which can cause mortality. The ideal and cost effective solution would be computerized system. We propose the automatic linkage of CDDH with an alert system in CMS with validity for 2 months since the last dispense of chemo instead of the use of chemotherapy alert card, which is labor and time consuming with high missing rate or overuse of emergency room facility, we hope HA can enhance the system for better manpower use in all HA hospitals.