Service Priorities and Programmes

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CQi on Post Chemotherapy Hematological Fever Patients in Accident and Emergency Department of QEH

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Introduction

Post-chemotherapy hematological neutropenic fever is a medical emergency requiring prompt assessment and intervention with antibiotics in the Accident and Emergency Department (AED). In accordance with the Australia Council of Health Standards (ACHS) guidelines, antibiotics should be administered within one hour of diagnosing neutropenic fever in AED. AED nurses and physicians wanted to develop a uniform approach towards the management of neutropenic sepsis so as to decrease mortality.

Objectives

This study aims to determine whether a protocol driven intervention would effectively reduce the door-to-needle (D-to-N) time on antibiotic administration to immune-compromised hematological patients in AED.

Methodology

A Continuous Quality Improvement (CQI) program was conducted to examine the D-to-N time of antibiotic administration before and after the implementation of the protocol driven intervention. This was a cohort study, which compare the D-to-N time of those patients when nurses take more roles on the post chemotherapy care.

Result

During the study period from 1st June 2011 to 15th April 2012, a total of 40 patients were recruited in the study. 29 patients participated before the intervention period, whereas 11 patients participated during the intervention period. Before the intervention period, the mean D-to-N time of antibiotic administration was 50.69 minutes. During the intervention period, the mean D-to-N time was 40.45 minutes, which was 20% lower than that before the intervention period. Before the intervention period, the mean length of stay (LOS) during hospitalization was 15.33 days. For

those recruited during the intervention period, their mean LOS during hospitalization reduced to 13.36 days, with a mean difference of 1.97 days. Protocol driven intervention can effectively reduce the D-to-N time of antibiotic administration and morbidity in immune-compromised hematological patients in AED.