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The impact of Cardiology Nurse Clinic on cardiac service delivery in Queen Elizabeth Hospital of Hong Kong

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Introduction

Heart disease remains the major cause of morbidity and mortality worldwide. The demand of cardiac care is also increasing. In order to enhance service provision, the nurses work with the physicians in an innovative way by setting up a Cardiology Nurse Clinic. It aims to enhance patients' disease knowledge, involvement and self care ability, and gradually integrate care from acute to community. In the clinic, we will provide care to patients with Anti-coagulation therapy, Congestive Heart Failure (CHF) or Post Percutaneous Coronary Intervention (PCI).

Objectives

To evaluate the impact of Cardiology Nurse Clinic on cardiac service delivery

<u>Methodology</u>

Patients with fluctuating (warfarin overdose/ underdose) INR, CHF or with PCI done, were referred from SOPC (specialist out-patient clinic)/ in-patient. Assessment, education and counseling would be provided to the patients individually. Medication would be titrated according to endorsed protocol if necessary. After stabilization, patients would be referred back to SOPC/ GOPC (general out-patient clinic) for follow up.

<u>Result</u>

Results: Anti-coagulation (April 2009- December 2012): 4844 patients were referred. 80.2 % INRs taken were within +/- 0.5 limit of therapeutic range. According to the British Society of Hematology guideline, all results have achieved the international key performance indicator (≥ 50 % within 0.5 limit of therapeutic INR range). The mean patient satisfaction level was 9.17 (10 is the highest). Assuming an average 3 bed-days were required for warfarin titration in the past, 4844 avoidable admission with 14532 in-patient bed- days were saved. CHF (September 2010- December 2012): 154 patients (mean age 65.42 +/- 12.11) confirmed with heart failure by echocardiogram (ejection fraction 35.5 +/- 15.3%) were referred to our clinic. The 1

year readmission rate and length of hospital stay related to CHF were significantly reduced from 1.24 to 0.07 times and 9.84 to 0.33 days respectively (p<0.001). These patients perceived better physical and mental health status by using SF-12 (quality of life) (P< 0.001). They also complied with healthier diet and had good drug compliance (p< 0.001). The mean patients satisfaction score was 9 (10 is the highest). Post PCI (March 2011- December 2012): 369 patients were referred. LDL was significantly decreased from 2.65 to 2.04 mmo/L (p< 0.001), which was recognized as the single most effective strategy for reducing future cardiovascular events. The diet compliance and adherence to dual platelet were also significantly improved (p<0.001). The mean patient satisfaction score was 9 (10 is highest). Discussions: Process of care is shifting from specialty-centered to patient-centered. The Cardiology Nurse Clinic has shown to be effective to empower patients to care for their own health. Avoidable admission for relatively stable patient can be prevented with length of hospital stay greatly shortened. Future directions: With the extension of the role of nursing practice as case managers, nurse-led services can be further expanded to accommodate more complex patient subgroups.