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Submitting author: Dr Y H CHENG

Post title: Resident Specialist, POH, NTWC

Clinical Pathway in Heart Failure in Pok Oi Hospital

Cheng YH(1), Chan SC(1), Wong CW(1), Chan YH(1), Lam CS(1)

(1)Department of Medicine and Geriatrics, Pok Oi Hospital

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Introduction

Heart failure is a collection of diseases whereby the pumping of blood by the heart is impaired. It is the common endpoint of various insults with myocardial infarction as the leading cause. With the aging population and increasing efficacy of medical therapies that prolonged the lives of cardiac patients, heart failure is a common condition seen in the acute hospital setting. The burden of congestive heart failure (CHF) in the modern society of Hong Kong is increasing annually. A local study in 1997 estimated the overall incidence rate per 1000 men and women was 5.7 and 4.8 respectively.

Objectives

Patients would benefit from a standardized guideline oriented inpatient hospital care. Clinical pathways for heart failure have been developed, but these models have not been evaluated in the local community setting. Here, we sought to assess the effectiveness of implementation of a clinical heart failure pathway by evaluating the use of heart failure medications, length of stay, rate of readmission in patients with congestive heart failure.

Methodology

Heart failure pathway was implemented in Pok Oi Hospital since Dec 2015. We retrospectively studied a total of 185 patients (mean age 66.5 ± 10.1) with diagnosis of congestive heart failure in a community hospital between January 2015 and December 2016. Patients were divided into two groups, 93 patients who were mainly managed by the general medical team and 92 patients who were recruited into the pathway, all reviewed by the cardiac team with suggested management. We conducted detailed reviews to determine and compare the use of evidence based heart failure medications, risk factors control status, length of stay and rate of readmission.

Result

There were significantly more heart failure medications prescribed including angiotensin converting enzyme inhibitor or angiotensin receptor blocker (ACEI / ARB) (59% vs 78%, $p < 0.01$), betablocker (44% vs 68%, $p < 0.01$), aldactone (8% vs 14%, $p < 0.01$), digoxin (7% vs 9%, $p = 0.03$) and warfarin (17% vs 24%, $p = 0.01$) after patients were recruited into the pathway. And lower rate of readmissions was

observed after the launch of heart failure pathway with 22% vs 11% in 30-day readmission ($p = 0.03$) and 45% vs 30% in 6-month readmission ($p = 0.04$) for those not enrolled and enrolled respectively.