



Service Priorities and Programmes Electronic Presentations

Convention ID: 279

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Implementation of Phase 1 Cardiac Rehabilitation Program (Pilot) in Integrated Intensive and Cardiac Care Unit, Pok Oi Hospital

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Keywords:

cardiac rehabilitation program
risk factor control

Introduction

Coronary heart disease (CHD) is one of the leading causes of mortality worldwide. Although the benefits of cardiac rehabilitation are well established, cardiac rehabilitation is constantly underutilized. A multi-disciplinary Cardiac Rehabilitation Program Phase 1 (pilot) was implemented in Nov 2013 in CCU of Pok Oi Hospital.

Objectives

1. Ensure evidence-based medication prescription
2. Risk factors control
3. Improve patient's knowledge on CHD
4. Provide early mobilization

Methodology

From 1/2014 to 6/2015, we recruited 116 CHD patients admitted to CCU after stabilization either by medical treatment and percutaneous coronary intervention. During admission, risk factors were identified by attending cardiologist. Nurses then offered an education program about CHD and risk factor control. Patient's knowledge about the disease was assessed using a standardized pre- and post-questionnaire. Selected patients underwent revascularization were referred to physiotherapist for early mobilization and physical activity assessment. Blood test including fasting lipid, glucose level, HbA1c was evaluated during recruitment and during follow-up at SOPD. Nurses would help to ensure evidence-based medication was properly prescribed using a medication checklist. Nurses also informed cardiologists if risk factor control was not optimized.

Result

There were 116 patients recruited. Mean age of patients was 60.96 +/- 12.5. Majority of patients (80%) were ACS patients. Majority of CHD patients (92%) had percutaneous coronary intervention performed. Risk factors control including mean fasting glucose (from 6.98 to 6.03, $p < 0.001$), triglyceride (from 1.48 to 1.30, $p = 0.022$), total cholesterol from 4.34 to 3.75, $p < 0.001$), LDL (from 2.64 to 2.00, $p < 0.001$) and HDL (from 1.12 to 1.18, $p = 0.019$) was significantly improved. There was significant improvement in mean knowledge score of CHD after education

program (12.29 to 13.73, Max 15; $p < 0.001$). Prescription percentage of evidence-based medication including ACEI (from 48.7% to 78.6%, $p < 0.001$), beta-blocker (from 41.9% to 61.5%, $p < 0.001$) and statin (from 95.7% to 96.6%, $p < 0.001$) was also significantly improved. Conclusion The multi-disciplinary in-patient cardiac rehabilitation was effective in reducing risk factors, prescription percentage of evidence-based medication and enhanced patient's knowledge. These benefits were well proven clinically to be associated with morbidity and mortality reduction.