



**Service Priorities and Programmes**  
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**IMPROVEMENT OF RISK FACTORS CONTROL AND PATIENT KNOWLEDGE  
AFTER CARDIAC REHABILITATION PROGRAM PHASE 1**

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**Introduction**

Coronary heart disease (CHD) is one of the leading causes of mortality worldwide. Cardiac rehabilitation program (CRP) is constantly underutilized despite its well established benefits. A multi-disciplinary CRP Phase 1 of joint collaboration of Department of Anesthesia and Intensive Care, Department of Medicine and Geriatrics and Department of Physiotherapy, 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 Nov 2013 to Jun 2017, we recruited 341 CHD patients admitted to CCU after stabilization.

Risk factors were identified by attending cardiologist on admission. Nurses then offered education program about CHD and risk factor control with relevant pamphlets. Patient's knowledge was assessed using a standardized pre- and post-questionnaire. Nurse would clarify misconception as shown on the post-questionnaire. Selected patients underwent revascularization were referred to physiotherapist for early mobilization. Nurses would ensure evidence-based medication was properly prescribed. Blood test including fasting lipid, fasting glucose and HbA1c was evaluated during recruitment and follow-up at specialist out-patient clinic. Nurses would inform cardiology team physician if risk factor control was not optimal.

## **Result**

341 patients were recruited. Mean age was 60.5±11.3. Majority of patients (73.3%) was suffering from acute coronary syndrome (ACS). Majority of CHD patients (95%) had percutaneous coronary intervention (PCI) performed. Mean follow-up was 60 days.

All blood results were improved significantly. Mean fasting glucose improved from 7.03 to 6.16 ( $p<0.001$ ), total cholesterol improved from 4.33 to 3.52 ( $p<0.001$ ), LDL were improved from 2.59 to 1.77 ( $p<0.001$ ), HDL was raised from 1.08 to 1.14 ( $p<0.001$ ), triglyceride improved from 1.57 to 1.41 ( $p=0.002$ ) and HbA1c improved from 6.83 to 6.56 ( $p=0.008$ ).

Mean knowledge score of CHD improved after education program (12.13 to 13.88, Max 15;  $p<0.001$ ).

Prescription percentage of evidence-based medication including ACEI (from 52.5% to 70.7%;  $p<0.001$ ), beta-blocker (from 51.3% to 65.7%;  $p<0.001$ ) and statin (from 97.9% to 98.8%;  $p<0.001$ ) was also significantly improved.

### **Conclusion**

The multi-disciplinary in-patient CRP was effective in reducing risk factors, prescription percentage of evidence-based medication and enhanced patient's knowledge.