**Independent Study Title** 

Evaluation of Care Map Utilization for Acute Myocardial Infarction Patients in Maharaj Nakorn Chiang Mai Hospital

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## **ABSTRACT**

Acute myocardial infarction is a critical condition that causes patients' hospitalization with high morbidity and mortality. It also requires a long hospitalization and high cost of care. The treatments comprise of several modalities by a multidisciplinary team. Therefore, the Care Map is necessary for communication among the patient care team. The Care Map for acute myocardial infarction patients composed of 3 phases was developed by "The Complete Cardiac Care Team" Maharaj Nakorn Chiang Mai Hospital, and has been implemented in clinical practice since 2002.

The purpose of this descriptive study was to evaluate the Care Map utilization for acute myocardial infarction patients in Maharaj Nakorn Chiang Mai hospital. Samples consisted of medical doctors, registered nurses and cardiac rehabilitation nurses. Twenty patients and the medical record of patients with acute myocardial infarction were consecutively recruited into the study. To obtain the data, the instrument was the Patient Recording Form including 1) the patient profile, length of hospital stay and cost, 2) the audit form, 3) the recorded form of the received treatment and medication recommended by the guidelines applied in practice. The instrument was developed by the researcher and content validity was confirmed by a panel of three experts in cardiology. The Content Validity index (CVI) was 0.94. Data was analyzed using descriptive statistics.

The results of this study showed that:

- 1. All of acute myocardial infarction patients who met criteria to use Care Map (100 %) received treatment and care according to the Care Map during their hospitalization. However, only 25 % of them received it during all three phases. The Care Map was most used during phase 1, 90 % by physicians and 100 % by nurses. During phase 2, 55 % and 60 % of physicians and nurses used the Care Map respectively. Fewer physicians and nurses used the Care Map during phase 3, with only 36.84 % equally in each group. However, it was about 78.94 % was used by cardiac rehabilitation nurses in phase 3.
- 2. All of the acute myocardial infarction patients who followed the Care Map (100%) received medication recommended by the guidelines for the management of patients with acute myocardial infarction and were screened for cholesterol level. Most of them (85%) received cardiac rehabilitation before discharge.
- 3. The median length of hospitalization of acute myocardial infarction patients who received Care Map was 7 days. The average length of hospitalization was 8.15 days. The minimum length of hospitalization was 3 days while the maximum was 19 days.
- 4. The highest cost of hospital care in acute myocardial infarction patients who received Care Map was 105,854.87 baht. This cost was found in a patient who received fibrinolytic therapy and percutaneous transluminal coronary angioplasty as well as had a prolonged length of hospitalization.

In addition, two patients (10%) in the group who did not received treatment and care according to the Care Map in all three phases, developed medical complications, but it was not found in those who received the Care Map in all three phases.

The results of this study could be used as baseline data for the development of a Care Map for acute myocardial infarction patients. Barriers and promoting factors that effect utilization should be further studied in order to promote the use of Care Map in all three phases.