



# Analysis of Pre-Operative Nutrition Assessment at Queen Sirikit Heart Center of the Northeast, Cardiovascular and Thoracic Surgery Patients Research Group, Faculty of Medicine, Khon Kaen University, Thailand

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**Background and Objective:** To perform a nutrition assessment of pre-operative patients at the Queen Sirikit Heart Center of the Northeast, Faculty of Medicine, Khon Kaen University, Thailand.

**Methods:** This was a descriptive study in 505 pre-operative cardiac surgery patients with comorbidities (262 males; 243 females) seen at the Queen Sirikit Heart Center of the Northeast between November 2014 and April 2015. The Subjective Global Assessment record form was used to collect data for statistical analysis.

**Results:** Twenty-one patients (4.2%) had a Body Mass Index  $<16.0 \text{ kg/m}^2$ , 231 (45.7%) unspecified severe protein-energy malnutrition, 77 (15.3%) nutritional marasmus, and 26 (5.2%) second degree obesity (Body Mass Index  $30.0\text{--}40.0 \text{ kg/m}^2$ ). The respective mean

pre-operative intake energy in the male vs. female groups were 1,622.4 kcal/day (protein 60.8 g/day, fat 45.1 g/day, carbohydrates 243.4 g/day) vs. 1,337.7 kcal/day (protein 50.2 g/day, fat 37.2 g/day, carbohydrates 200.7 g/day).

**Conclusions:** Significant numbers of pre-operative cardiac surgery patients were suffering from malnutrition and inappropriate pre-operative nutritional service. Developing a nutrition service system as well as long-term nutrition education for patients are needed.

**Keywords:** pre-surgical nutrition therapy, cardiac surgery, dietary habit, nutritional status, nutrition services



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