A Cross-sectional Survey on the Screening of Malnutrition Risk for Hospitalized Medical Patients

Lee CK(1), Yong MKR(2), Tang CY(2), Lam D(3), Yeung V(3), Lam PKR(4)
(1)Department of Medicine, (2)Department of Dietetics, (3)Department of Nursing, (4)Quality and Safety Office, PYNEH

Introduction
Nutrition screening has not been a mandatory practice for all hospitalized patients in HA hospitals. As malnutrition (undernutrition) is known to be associated with adverse health outcomes and commonly goes unrecognized in acute care settings, nutrition screening may early identify patients at risk of malnutrition and improve health outcomes.

Objectives
To evaluate the malnutrition risk of medical patients within 48 hours of admission.

Methodology
The validated Malnutrition Screening Test (MST) scoring from 0 to 5, was applied to all medical patients who were (i) transferred from acute medical wards to Geriatric/convalescence beds or (ii) for clinical admissions. MST consists of two questions on (i) weight loss (0 to 4 based on severity of weight loss) in the past 6 months (for those answered “unsure”, scored 2), and (ii) decreased appetite (0 or 1), followed by a care plan based on the classification of the nutrition risk (classified as low risk if MST 0-1, medium risk if MST 2 and high risk if MST 3-5). Body mass index (BMI) measurement was optionally required. The screening was carried out from June to December 2014. Descriptive statistic was used for data analysis.

Result
A total of 1349 patients (42.1% male aged from 21 to 102 and 57.9% female aged from 19 to 105 years) were screened. 28 patients (2.1%) were excluded due to incomplete data collection. A total of 1321 patients data were analyzed of which 1055 patients (79.9%) were at low risk and 266 patients (20.1%) at medium to high risk. The MST question on either weight loss or decreased appetite was significantly
associated with medium (MST score 2) to high risk (MST score 3-5) of malnutrition (Chi square, n=1168, Fisher Exact Test, p<0.001) in 1168 (88.4%) patients after excluding the 153 (11.6%) patients whose answers for weight loss was “unsure”. 819 patients (62%) had BMI measurement. Patients with lower BMI had higher MST scores than those with higher BMI (Chi square, n=819, p<0.001). Recommendations: MST is a rapid and simple screening tool to evaluate the risk of malnutrition. While BMI remains a useful nutritional parameter, nutrition screening should be implemented for all hospitalized patients and early intervention for malnourished patients is warranted.