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LETTER TO THE EDITOR:

HIGH PREVALENCE OF MALNUTRITION AMONG GERIATRIC AND PALLIATIVE INPATIENTS: THE IMPORTANCE OF MALNUTRITION SCREENING

Geok Y. TEO and *Shyh P. TEO

Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Jalan Putera Al Muhtadee Billah, Bandar Seri Begawan Brunei Darussalam; *Geriatrics and Palliative Unit, Department of Internal Medicine, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Jalan Putera Al Muhtadee Billah, Bandar Seri Begawan Brunei Darussalam

*Corresponding Author: shyhpoh.teo@moh.gov.bn

Short Running Title: Malnutrition geriatrics and palliative

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Dear Editor,

The prevalence of malnutrition in hospital inpatients is high, ranging from 38% to 83% [1]. Malnutrition is associated with increased morbidity, mortality, prolonged hospitalisation and risk of infection [2, 3]. The use of malnutrition screening tools in hospitals has been shown to facilitate nutrition support to reduce malnutrition and its detrimental effects [4, 5].

In Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, an 880 bedded tertiary hospital in Brunei, the dietetics service reviews all inpatients with diabetes mellitus, as well as referrals from the primary team. In May 2016, the Malnutrition Universal Screening Tool (MUST) was implemented for inpatients admitted under geriatrics and palliative medicine. This screening initiative aimed to ensure that older inpatients or patients with advanced non-communicable diseases are screened for malnutrition. Patients identified with MUST score greater than two (deemed high risk for malnutrition) were referred to dietitians for assessment to consider nutritional support, such as supplementation, food fortification or enteral feed-

ing. We report findings from a retrospective review of MUST, which illustrate the importance of malnutrition screening in geriatrics and palliative inpatients.

This retrospective review of MUST include inpatients admitted under geriatrics and palliative medicine in RIPAS hospital between May to June 2016. The MUST form includes, height, weight, body mass index (BMI), weight loss, acute disease status and the MUST score. The MUST score is calculated from recorded BMI, weight loss and presence of acute disease with no nutritional intake for 5 days, categorising patients into low, medium or high risk of malnutrition.

Variables were collected from manual forms or electronic records. Data was entered and analysed using Microsoft Excel for Windows. Descriptive statistics were used to characterise the samples. Two-tailed paired t-tests were used to determine differences between malnutrition risks between patient groups.

There were 138 patients, consisting of 67 (48.6%) geriatrics and 71 (51.4%) palliative patients. Screening for malnutrition was performed for 86 (62.3%) of the 138 patients. This consisted of 48.8% (42/86) geriatrics (13 male, 29 female) patients and 51.2% (44/86) palliative (20 male, 24 female) patients. The 52 (37.7%) of the 138 patients excluded were those already seen by dietitians. They include 25 geriatrics and 27 palliative patients.

Mean age of screened patients was 71 ± 14.9 years. Mean weight was 44.9kg ± 12.7kg. Patients with moderate to high risk of malnutrition (MUST score 2 or more) was 45.2% and 72.7% for geriatrics and palliative respectively. There was no statistically significant difference in malnutrition status between genders.

Among the geriatrics patients screened, 11.9% (5/42) had BMI score 1 (BMI 18.5-20 kg/m2) and 31% (13/42) had BMI score 2 (BMI <18.5kg/m2). For palliative patients, 6.8% (3/44) had BMI score 1, and 20.5% (9/44) had BMI score 2. There was a significantly higher proportion of geriatrics patients with BMI score 2 compared to palliative patients (p=0.005).

In terms of weight loss, 7.1% (3/42) of geriatric inpatients had weight loss score 1 (5-10% weight loss in past 6 months), and 2.4% (1/42 patients) had weight loss score 2 (>10% in past 6 months). Among palliative patients, 15.9% (7/44) had weight loss score 1, while 50% (22/44) had weight loss score 2. There was a significantly higher proportion of palliative patients with weight loss score 2 compared to geriatrics inpatients (p=0.000). There were no differences in malnutrition status between genders for geriatrics (p=0.165) or palliative inpatients (p=0.419).

This retrospective review of MUST screening assessments identified a high risk of malnutrition among geriatrics and palliative inpatients. More than half of the geriatrics inpatients had BMI below 20 kg/m2 while approximately two-thirds of palliative inpatients had more than 5% weight loss in the previous six months. In older people, physiological changes to taste and smell, loss of dentition, decreased mobility and reduced eyesight may affect food preparation and oral consumption [6, 7]. Polypharmacy, cognitive decline, social isolation and depression may also contribute to malnutrition [6]. For palliative inpatients, weight loss is associated with a poor prognosis [8]. Weight loss is common among palliative patients due to multiple reasons involving the malignant process and treatment [9].

The European Society for Parenteral and Enteral Nutrition (ESPEN) recommends use of MUST for nutritional screening to identify nutritional issues for inpatients [10]. Early intervention for malnutrition with oral nutritional supplements and dietary counselling of these patients results in increased dietary intake and improved quality of life [4, 5, 10]. Therefore, introduction of malnutrition screening hospital-wide will be beneficial for inpatients requiring attention to improve their nutritional status.

In summary, malnutrition was prevalent among geriatrics and palliative inpatients in our hospital, with predominant issues in low BMI and weight loss respectively. The use of MUST was valuable in identifying patients at risk of malnutrition

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