

# Assessment of Nutritional status in cancer patients using patient generated subjective global assessment screening tool

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## INTRODUCTION

- Malnutrition is common in cancer patients accounting for 50-90%. <sup>1</sup>
- It is associated with reduced effective treatment, functional status, quality of life, and survival. <sup>2</sup>
- Its prevalence varies with type, site and stage of cancer with the highest being in cancer of the gastrointestinal tract and lung. <sup>3</sup>
- It also occurs as a result of various factors including reduced food intake and adverse effects of chemotherapy. <sup>4</sup>
- Patients with malnutrition have reduced tolerance to antineoplastic therapy<sup>2</sup> with more dose-limiting toxicity and treatment interruptions, thus requiring more frequent and longer hospital admissions.<sup>5</sup>

## OBJECTIVES

The objective of the study was to find out the prevalence of malnutrition among cancer patients.

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## METHODS & METHODOLOGY

- A descriptive cross-sectional study was conducted among 95 cancer patients in the Department of Clinical Oncology of the NAMS
- All the patients of any age, diagnosed with cancer of any organ, presenting to the clinical oncology department of NAMS, were included. Patients who were already on nutritional support and with difficulty n communication such as dementia or altered sensorium were excluded.
- As this worksheet contained two parts, each containing four questionnaires, the first part was filled up by eligible patients themselves.
- After completing all the data, the sum of the points of each component generating a score, ranging from 0 to 9 was calculated.
- In addition to quantitative classification, a classification by groups was performed, in which the patients were classified as: well-nourished or anabolic (SGA-A); moderately malnourished or suspected of malnutrition (SGA-B); or severely malnourished (SGA-C).
- Data were entered and analysed in IBM SPSS Statistics 20.0. Point estimate and 95% Confidence Interval were calculated.

## RESULTS

- 22 (23.15%) (15.10-32.10, 95% CI) of the patients were malnourished.
- A median PG-SGA score of 2 (Interquartile range:1-6) was present.
- When classified based on the type of nutrition intervention requirement, a total of 22 (23.15%) patients required some intervention for their malnutrition.
- The study also indicated that 16 (72.72%) of the patients had a score of  $\geq 9$  which implies a critical need for improved symptom management and/or nutrition intervention. Six (27.28%) patients had a score of  $< 9$ , which implies a requirement of intervention by a nutritionist in conjunction with a nurse or physician.

Table 1. Demographic profile of patients with malnutrition (n = 22).	
Variables	n (%)
<b>Sex</b>	
Male	18 (81.81)
Female	4 (18.19)
<b>Diagnosis</b>	
Gastrointestinal cancers	18 (81.81)
Lungs	2 (9.09)
Non hodgkins lymphoma	1 (4.54)
Ovary	1 (4.54)
<b>Stage</b>	
Limited	8 (36.36)
Metastatic	14 (63.63)
<b>Malnutrition grading</b>	
PGSGA-B	14 (63.63)
PGSGA-C	8 (36.36)

## DISCUSSION

- The prevalence of malnutrition in our study was 23.15%, whereas in Kenyan cancer patients it was 31%. <sup>6</sup> Moreover, among the total malnutrition patients in our study, 14.90% were SGA-B and 8.50% SGA-C whereas 19.70% and 11.30% were moderately and severely malnourished in Kenyan patients. This highlights the difference in nutrition status between Asian and African populations with cancer. These differences in results might be due to different methodologies, culture and also most of the Kenyan patients were of advanced stage.
- Our study showed that 50% of patients with GI cancer which included head and neck cancer had moderate or severe malnutrition. A study done in Mexico showed the highest prevalence of malnutrition among patients with lungs followed by head and neck and gastrointestinal cancers. <sup>7</sup> The reason might be gastrointestinal cancers which affect absorption, lead to dysphagia, vomiting, diarrhoea and eventually lead to malnutrition.
- Malnutrition was higher in metastatic cancer. <sup>6</sup> In our result 33.33% of patients had malnutrition in comparison to the Kenyan study (24.30%). Metastatic cancer is chronic and incurable stage of disease, where patients might have received multiple lines of chemotherapies and also due to chronic illness which might have contributed to malnutrition.
- As this scoring relies mostly on the dietary habits for two weeks, we need serial measurements during the course of illness as this screening tool stratifies those who are at risk and can be managed accordingly.

## CONCLUSION

The prevalence of malnutrition among cancer patients was lower when compared to a similar study done in similar settings. Malnutrition is a common problem seen in cancer patients. Therefore, early recognition and detection of risk for malnutrition, especially gastrointestinal cancer, through screening followed by comprehensive assessment and timely interventions should be an oncology strategy. Furthermore, nutritional support could be an integral part of cancer care.

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