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# Factors Associated With Malnutrition in Hospitalized Cancer Patients in a National Oncology Center in Conflict-Affected Settings in Sana'a, Yemen: An Institution-Based Cross-Sectional Study

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## Abstract

### Background

Cancer can significantly impact the nutritional status of patients, which can worsen related complications and reduce the effectiveness of treatment. Malnutrition is a common complication among cancer patients, especially among older adults. This study aims to determine the prevalence of malnutrition among hospitalized cancer patients and identify factors associated with malnutrition.

### Methodology and methods

The cross-sectional descriptive study was performed on 296 cancer patients admitted to the National Oncology Referral Center in Sana'a, Yemen, between February 1 and March 31, 2022. Malnutrition was diagnosed through clinical assessment and screening tools such as screening tools, body mass index (BMI), weight loss percentage, and mid-upper arm circumference (MUAC). Descriptive statistics, chi-square, and multivariable logistic regression analysis were used to assess factors associated with malnutrition.

### Results

Of the 296 patients included in the analysis, most were female 225 (76.0%), and the mean age was 45.8 years. The prevalence of undernutrition, as determined by the BMI score, was 48 (16.2%). The prevalence of malnutrition was higher in females 37 (16.4%) compared to males 11 (15.5%). The data indicated that 49% of hospitalized patients had experienced weight loss of 5% or more. Multivariable logistic regression analysis showed that single (AOR=12.93, 95% CI: 1.17-142.77) or widowed (AOR=11.51, 95% CI: 1.05-126.03) marital status, weight loss (AOR=7.56, 95% CI: 3.00-18.69), stomach cancer (AOR=6.77, 95% CI: 1.66-27.70), and breast cancer (AOR=2.60, 95% CI: 1.12-6.03) were associated with an increased risk of malnutrition.

### Conclusions

The study highlights the importance of evaluating and addressing the nutritional status of cancer patients, especially at the beginning and during treatment, to improve their clinical outcomes. Prospective studies are recommended to further investigate this issue.