



COMPARISON OF MALNUTRITION SCREENING TOOLS WITH THE GLIM CRITERIA FOR MALNUTRITION AMONG COLORECTAL CANCER PATIENTS: A RETROSPECTIVE COHORT STUDY

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Background and aims

This study aimed to compare malnutrition screening and assessment tools with the new Global Leadership Initiative on Malnutrition (GLIM) diagnostic criteria for malnutrition among colorectal cancer (CRC) patients.

Methods

Nutritional screening tools (NRS-2002 and MUST) and nutritional assessment tools (CONUT and PNI) were applied to CRC patients undergoing surgery between January 2015 and July 2020 at Fondazione Policlinico Gemelli in Rome. Sensitivity, specificity, and positive predictive values were calculated.

Results

A total of 481 CRC patients were included. According to the new GLIM criteria, 38.3% (n=184) of patients were diagnosed as malnourished - of which 5% were severely malnourished. A total of 231 (48%) patients were malnourished with CONUT, and 245 (51%) with PNI. MUST was best correlated with the GLIM diagnostic criteria (AUROC 0.977, sensitivity 96.7%, K=0.96) compared with NRS-2002. PNI and CONUT had a low agreement with new GLIM criteria.

Conclusions

At the first step approach of GLIM, the prevalence of malnutrition depends on the choice of the malnutrition screening tool. Compared with NRS-2002, MUST was found to perform the best in identifying malnourished CRC patients by the new GLIM criteria for malnutrition. Moreover, clinical nutritionists and dietitians should be aware of discrepancies in terms of malnutrition prevalence between malnutrition assessment tools and GLIM criteria. These results stress the need to adopt more standard and effective malnutrition assessment tools to propose effective and timely nutritional support in CRC patients.

