

VALIDITY OF NUTRITIONAL SCREENING TOOL FOR DIALYSIS PATIENTS

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ABSTRACT

Background: Malnutrition is a common problem in patients with hemodialysis. Prevalence of malnutrition in patients with chronic renal failure who must undertake hemodialysis treatment is still high. Therefore, there is a need to develop a valid screening tool to detect malnutrition early. This study aimed to assess the validity of nutritional screening tool for dialysis patients.

Subjects and Method: This was a cross-sectional study. A sample of 226 patients aged ≥ 18 years with chronic renal failure who must undertake hemodialysis were selected for this study. Patients who received enteral or parenteral nutritional feeding, had sepsis, shock, coma, malignancy, and multi organ failure, were excluded from this study. Dialysis Malnutrition Score (DMS) and Nutrition Risk Index (NRI) were used as a screening tool for detecting malnutrition. The results were compared with Subjective Global Assessment (SGA) as the reference standard to yield sensitivity and spesificity as validity measures.

Results: Percent of patients with malnutrition as detected by DMS, NRI, and SGA were 98.2%, 65%, and 15.5%, respectively. Sensitivity and specificity of DMS were 81.3% and 71.4% as compared to SGA, respectively. Sensitivity and specificity of NRI were 29.2% and 85.7% as compared to SGA, respectively.

Conclusions: DMS can be used as a screening tool to detect malnutrition, since it has acceptable sensitivity and specificity. In addition, similar to SGA, DMS is easy to apply and does not require biochemical data.

Keywords: malnutrition, chronic renal failure, hemodialysis, DMS, NRI, SGA, screening tool, sensitivity, specificity

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