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CONCORDANCE ANALYSIS BETWEEN THE CONUT INDEX AND INDIVIDUAL MARKERS: EVALUATING NUTRITIONAL STATUS THROUGH UNWEIGHTED AND WEIGHTED KAPPA MEASURES

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BACKGROUND AND IMPORTANCE

Nutritional assessment using the CONUT index can be useful for detecting hospital malnutrition. Measuring the concordance between CONUT and its individual markers (albumin, cholesterol, lymphocytes) is essential to validate its accuracy, identify potential biases, and ensure the index provides a more comprehensive and balanced evaluation of nutritional status compared to isolated parameters.

AIM AND OBJECTIVES

Assess the concordance between the CONUT index and individual markers, considering the impact of unweighted and weighted Kappa measures.

MATERIAL AND METHODS

We conducted a cross-sectional, observational study in a mid-level complexity hospital.

We collected all lab results that used the CONUT index, along with individual parameters. We used the following cut-off points to classify nutritional status

Kappa, weighted Kappa and Altman's criteria were applied to assess the concordance between the CONUT index and individual parameters.

Parameters	Clasification	Value
Albumin (g/dL)	Normal	≥ 3.5
	Leve	3.0 - 3.49
	Moderado	2.5 - 2.99
	Malnutrición	< 2.5
Total Cholesterol (mg/dL)	Normal	≥ 180
	Leve	140 - 179
	Moderado	100 - 139
	Malnutrición	< 100
Lymphocyte count (/mm³)	Normal	≥ 1600
	Leve	1200 - 1599
	Moderado	800 - 1199
	Malnutrición	< 800

RESULTS

3,426
Lab Results

2,882
Patients

AGREEMENT BETWEEN THE CONUT INDEX AND THE INDIVIDUAL MARKERS

Parameter	Agreement type	Kappa Value	Interpretation
CONUT vs Albumin	Unweighted	0.141	Poor
	Linear	0.319	Low
	Quadratic	0.502	Moderate
CONUT vs Cholesterol	Unweighted	0.218	Low
	Linear	0.401	Low
	Quadratic	0.589	Moderate
CONUT vs Lymphocytes	Unweighted	0.248	Low
	Linear	0.418	Low
	Quadratic	0.580	Moderate

CONCLUSION AND RELEVANCE

According to Altman's criteria, the agreement between the CONUT index and individual markers varies significantly depending on the type of weighting applied. This suggests that while exact category matches between CONUT and the markers may be rare, there is a stronger correlation when the proximity of categories is considered. Further refinements in the weighting of individual markers within the CONUT system could improve its precision and reduce potential biases in specific clinical contexts.