

# ASSOCIATION BETWEEN CLINICAL VARIABLES AND NUTRITIONAL STATUS WITH EVOLUTION TO DEATH FOR ELDERLY CANCER PATIENTS - A MULTICENTRIC STUDY

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## RATIONALE

Nutritional assessment and intervention plays an important role in the treatment of elderly cancer patients. The objective of the study was to evaluate the association between clinical and nutritional status variables with evolution to death in elderly patients with cancer.

## METHODS

A multicenter, hospital-based cohort study that included 44 institutions in Brazil. A total of 3061 elderly individuals with cancer hospitalized between September and October 2014 were submitted to a Mini Nutritional Assessment-Short Form (MNA-SF) within 24 hours after the hospitalization date. Patients of both genders, over 65 years old, with diagnosis of malignant tumors, regardless of the location or staging of the disease, were included. A univariate analysis was performed to identify the explanatory variables related to the death outcome in up to 30 days; considering gender, age range, Calf Circumference (CC), MNA-SF score and classification. Results were expressed as frequency and percentage or mean and standard deviation. The relative risk (RR) was calculated according to logistic regression individually.

## RESULTS

The mean age was  $73.4 \pm 6.6$  years, mean CC of  $32.0 \pm 4.2$  cm. A population of 1339 women (43.7%) and 1722 men (56.3%) were identified. According to MNA-SF, 33.5% of the patients were malnourished, while 39.3% were at nutritional risk and 27.2% were classified with normal nutritional status (Fig. 1). The CC values were obtained in 92% of the cases, where 33.5% presented values  $< 31$ cm and  $\geq 31$ cm were 58.5% (Fig. 2).

Of all the variables studied, those associated with death within 30 days, were the female gender (RR = 1.54, 1.19-2.01, 95% CI,  $p = 0.001$ ); Age range  $\geq 75$  years (RR = 1.63, 1.18-2.26 CI95%,  $p = 0.003$ ); CC  $< 31$ cm (RR = 2.65, 2.00-3.53, 95% CI,  $p < 0.0001$ ); MNA-SF score  $\leq 7$  points (RR = 8.60, 6.25-11.7 CI95%,  $p < 0.0001$ ) and malnutrition according to MNA-SF (RR = 17.2, 9.29-31, 8 IC95%,  $p < 0.0001$ ) (Table 1).

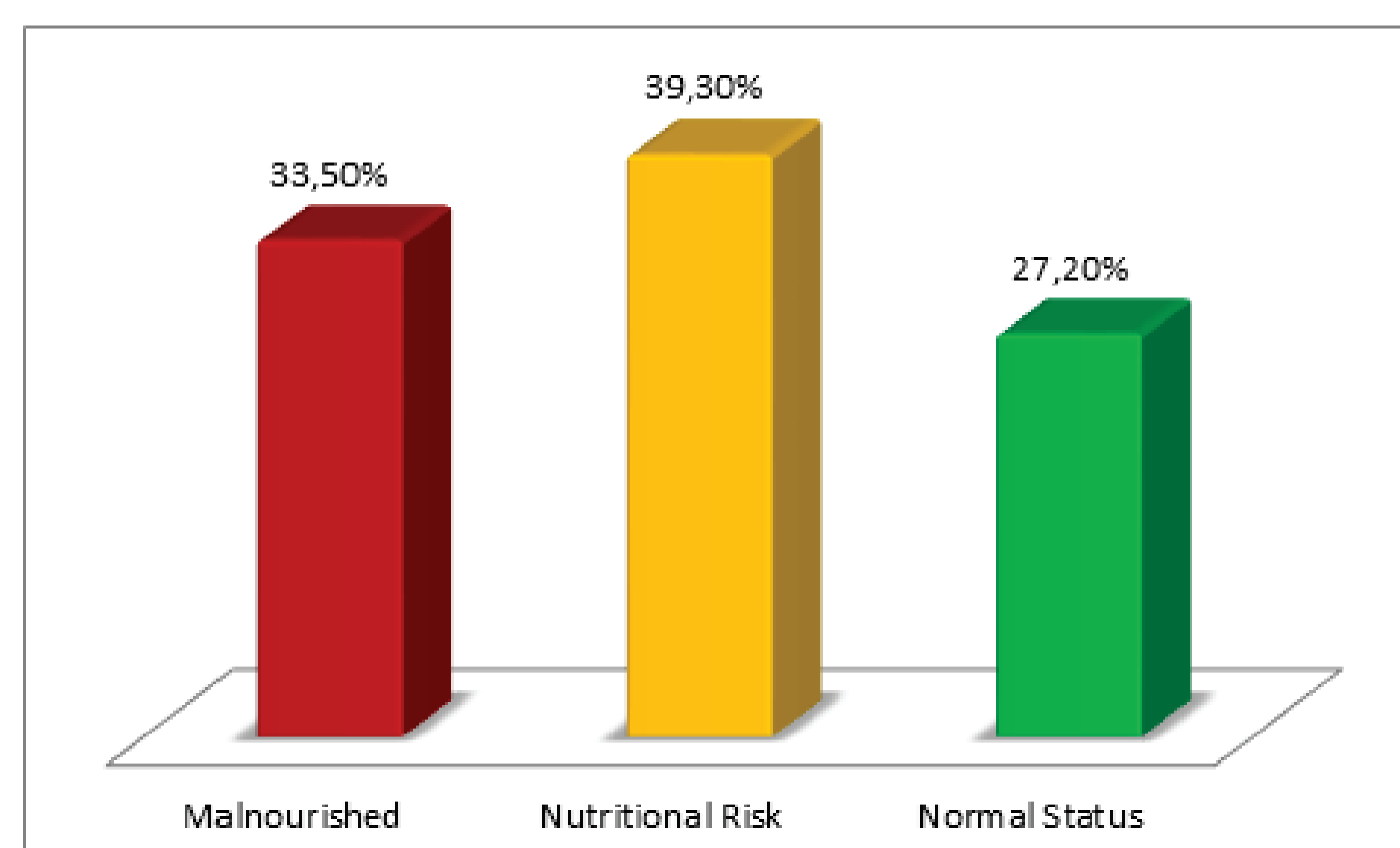


Fig 1. MNA-SF Nutritional Status.

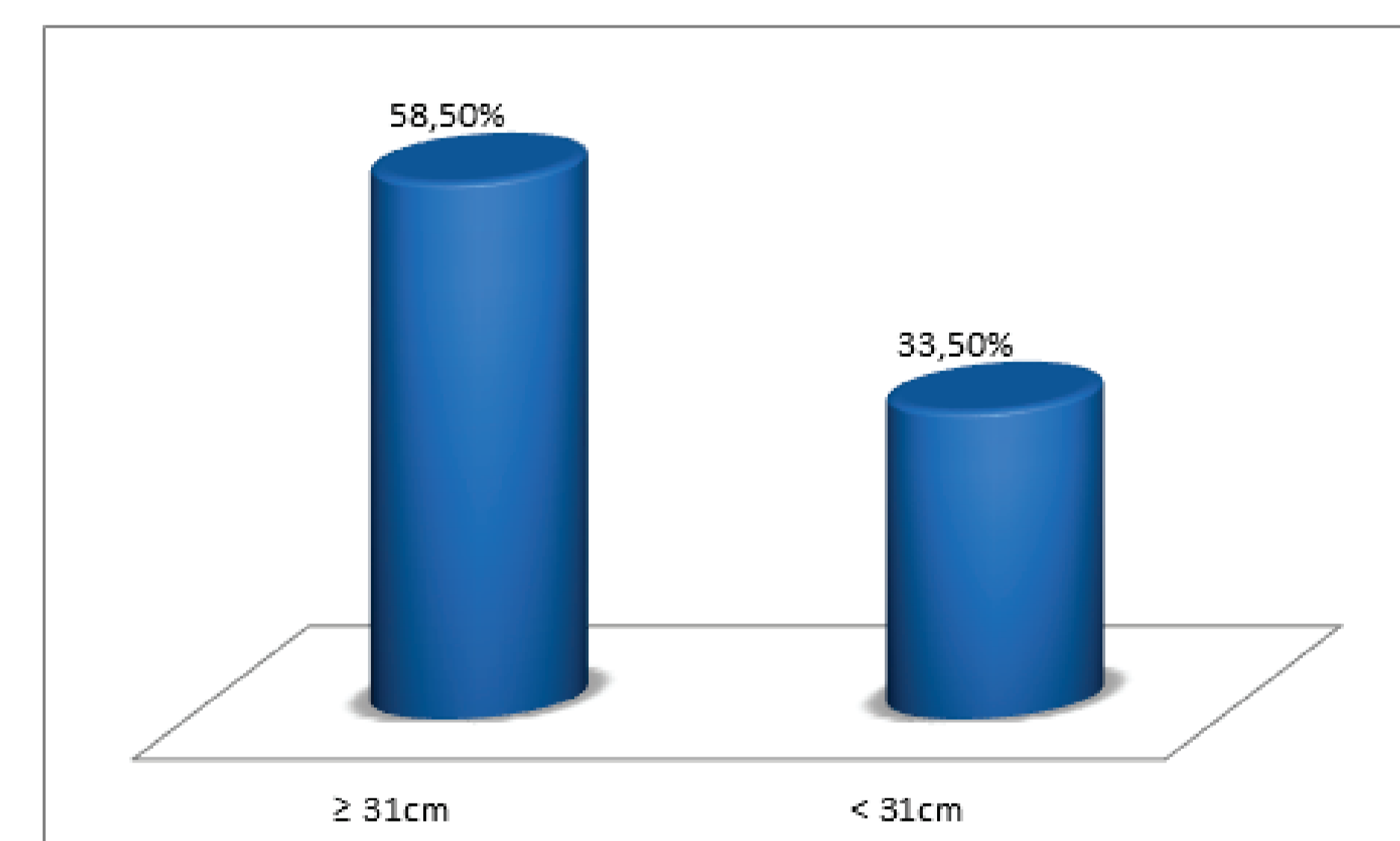


Fig 2. Percentual of patients with Calf Circumference  $< 31$ cm and  $\geq 31$ cm.

Table 1. Clinical variables related to death in 30 days

	RR (CI 95%)	p
Woman gender	1,54 (1,19-2,01)	= 0,001
Age Range $\geq 75$ anos	1,63 (1,18-2,26)	= 0,003
CC $< 31$ cm	2,65 (2,00-3,53)	$< 0,0001$
MAN-SF Score $\leq 7$ pontos	8,60 (6,25-1,17)	$< 0,0001$
Malnutrition according MAN-SF	17,2 (9,29-31,8)	$< 0,0001$

\* Relative Risk (RR); Confidence Interval (CI)

## CONCLUSIONS

The MNA-SF Classification, the MNA-SF Score and the CC were shown to be an efficient nutritional indicator capable of identifying the 30-day mortality risk in this population.