Objective. To test the hypothesis that increased length of stay and anthropometric status at admission are significant factors associated with in-hospital malnutrition (IHM). Material and methods. Prospective study with two weight (admission and discharge) and one height (admission) measurements per child at the Instituto de Puericultura e Pediatria Martagão Gesteira (IPPMG), Rio de Janeiro, Brazil. The study included 456 children of low socioeconomic status under 10 years of age admitted to the IPPMG during 1997. Statistical analysis involved calculation of in-hospital malnutrition (IHM) prevalence by covariates. The length of hospital stay varied from 1 to 69 days. Association of IHM with gender, age category, length of stay, presence of wasting, and stunting, was tested by calculating odds ratios using multivariate logistic regression. Results. Logistic regression showed that after adjusting for gender, age category, and presence of stunting at admission, presence of wasting at admission (OR= 0.07, CI 95% 0.01 - 0.55) and length of stay from 17 to 69 days (OR= 4.68, CI 95% 2.00 - 10.95), were statistically associated with IHM in the final model. Conclusions. As intervention measures, the authors suggest implementation of an early identification system for children at risk of developing IHM, along with a review and implementation of in-hospital feeding protocols.

Keywords
Key words: anthropometry; nutrition disorders; hospitalization; child; Brazil