Predictors of malnutrition risk among hospital in-patients

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Background – Malnutrition increases morbidity and mortality among hospital patients, but little is known about the characteristics of patients who are more likely to be malnourished.

Objective - To identify routinely-collected patient characteristics associated with a higher risk of malnutrition.

Design – In a large teaching hospital, adult in-patients were randomly selected from all wards, except critical care, palliative, obstetrics and psychiatry. (Selected patients who were unavailable or unable to communicate adequately were replaced by others randomly selected from the same ward.) Their nutritional status was assessed as "well-nourished" or "malnourished" by trained dietetic staff using the Detsky SGA method.

Outcomes – Malnutrition prevalence was 39% for the 117 female subjects, and 43% for the 120 males. Among females, malnutrition prevalence was *not* significantly ($P<0.05$) linked to age (39% for 18-65 y vs 40% for >65 y), length of stay (40% for 0-6 d vs 38% for >6 d) or hospital division (30% for surgical vs 45% for medical & gynaecological). However, among males, malnutrition prevalence was significantly linked to age (25% for 18-65 y vs 58% for >65 y, $P<0.0005$), length of stay (31% for 0-6 d vs 63% for >6 d, $P=0.001$) and hospital division (30% for surgical vs 51% for medical, $P=0.037$).

Conclusions - Among males, malnutrition prevalence varies substantially; routinely-available data could be used as predictors of malnutrition risk to help allocate scarce dietetic resources. Among females, malnutrition prevalence is more uniformly distributed.