

## Nutrition Risk Screening 2002 (NRS 2002)

**Table 1** Screening for nutritional risk

Impaired nutritional status		Severity of disease ( $\approx$ stress metabolism)	
Absent Score 0	Normal nutritional status	Absent Score 0	Normal nutritional requirements
Mild Score 1	Wt loss >5% in 3 months Or Food intake below 50–75% of normal requirement in preceding week	Mild Score 1	Hip fracture Chronic patients, in particular with acute complications: cirrhosis (11), COPD (12) <i>Chronic hemodialysis, diabetes, oncology</i>
Moderate Score 2	Wt loss >5% in 2 months Or BMI 18.5 – 20.5 + impaired general condition Or Food intake 25–50% of normal requirement in preceding week	Moderate Score 2	Major abdominal surgery (13–15). Stroke (16) <i>Severe pneumonia, hematologic malignancy</i>
Severe Score 3	Wt loss >5% in 1 month ( $\approx$ >15% in 3 months (17)) Or BMI <18.5 + impaired general condition (17) Or Food intake 0–25% of normal requirement in preceding week in preceding week.	Severe Score 3	Head injury (18, 19) Bone marrow transplantation (20) <i>Intensive care patients (APACHE 10)</i>

Score:

Total score:

Calculate the total score:

1. Find score (0–3) for Impaired nutritional status (only one: choose the variable with highest score) and Severity of disease ( $\approx$  stress metabolism, i.e. increase in nutritional requirements).
2. Add the two scores ( $\rightarrow$  total score)
3. If age  $\geq 70$  years: add 1 to the total score to correct for frailty of elderly
4. If age-corrected total  $\geq 3$ : start nutritional support

*Note:* See text on p. 330: as a prototype, a patient with a score = 1 in severity of disease is admitted to hospital due to complications associated with a chronic disease. The patient is weak but out of bed regularly. Protein requirement is increased, but can be covered by oral diet or supplements in most cases. The prototype of score = 2 is a patient confined to bed due to illness, e.g. following major abdominal surgery or due to severe infection. Protein requirement is substantially increased but can be covered, although artificial feeding is required in many cases. The prototype of score = 3 is the intensive care patient with assisted ventilation, inotropic drugs, etc. Protein requirement is increased to the extent, that in most cases it cannot be covered by artificial feeding, but protein breakdown and N loss can be attenuated significantly.

**Reference:** Kondrup J, Rasmussen HH, Hamberg O, Stanga Z. Nutritional risk screening (NRS 2002): a new method based on an analysis of controlled clinical trials. *Clinical Nutrition* 2003; 22: 321-36