به نام خدا

ارزیابی تغذیه ای
یازدهم
جلسه

دکتر طباطبائی

دستیار تخصصی تغذیه

گروه تغذیه

دانشکده پزشکی مشهد

Nutritional Risk Screening (NRS 2002)

Table 1 Initial screening

		Yes	No
1	Is BMI <20.5?		
2	Has the patient lost weight within the last 3 months?		
3	Has the patient had a reduced dietary intake in the last week?		
4	Is the patient severely ill ? (e.g. in intensive therapy)		

Yes: If the answer is 'Yes' to any question, the screening in Table 2 is performed.
No: If the answer is 'No' to all questions, the patient is re-screened at weekly intervals. If the patient e.g. is scheduled for a major operation, a preventive nutritional care plan is considered to avoid the associated risk status.

Table 2 Final screening

Impaired nutritional status		**Severity of disease (≈ increase in requirements)**	
Absent **Score 0**	Normal nutritional status	Absent **Score 0**	Normal nutritional requirements
Mild **Score 1**	Wt loss >5% in 3 mths 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*, COPD*. *Chronic hemodialysis, diabetes, oncology*
Moderate **Score 2**	Wt loss >5% in 2 mths or BMI 18.5 – 20.5 + impaired general condition or Food intake 25–60% of normal requirement in preceding week	Moderate **Score 2**	Major abdominal surgery* Stroke* *Severe pneumonia, hematologic malignancy*
Severe **Score 3**	Wt loss >5% in 1 mth (>15% in 3 mths) or BMI <18.5 + impaired general condition or Food intake 0-25% of normal requirement in preceding week in preceding week.	Severe **Score 3**	Head injury* Bone marrow transplantation* *Intensive care patients (APACHE >10).*
Score:	+	**Score:**	**= Total score**
Age	if ≥70 years: add 1 to total score above	**= age-adjusted total score**	

Score ≥3: the patient is nutritionally at-risk and a nutritional care plan is initiated
Score <3: weekly rescreening of the patient. If the patient e.g. is scheduled for a major operation, a preventive nutritional care plan is considered to avoid the associated risk status.

NRS-2002 is based on an interpre-tation of available randomized clinical trials.
*indicates that a trial directly supports the categorization of patients with that diagnosis. Diagnoses shown in *italics* are based on the prototypes given below.
Nutritional risk is defined by the present **nutritional status** and risk of impairment of present status, due to **increased requirements** caused by stress metabolism of the clinical condition.

A nutritional care plan is indicated in all patients who are

(1) severely undernourished (score = 3), or (2) severely ill (score = 3), or (3) moderately undernourished + mildly ill (score 2 + 1), or (4) mildly undernourished + moderately ill (score 1 + 2).

Prototypes for severity of disease
Score = 1: a patient with chronic disease, admitted to hospital due to complications. 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.

Score = 2: a patient confined to bed due to illness, e.g. following major abdominal surgery. Protein requirement is substantially increased, but can be covered, although artificial feeding is required in many cases.

Score = 3: a patient in intensive care with assisted ventilation etc. Protein requirement is increased and cannot be covered even by artificial feeding. Protein breakdown and nitrogen loss can be significantly attenuated.

ارزیابی آزمایشگاهی

- Acute-phase respondents

1. Negative acute-phase respondents e.g. Albumin, Transferrin, pre-albumin, RBP.

2. Positive acute-phase respondents

(Acute-phase proteins): e.g. CRP and fibrinogen

ارزیابی تغذیه ای (Dietary assessment)

- **متد ها**

1. دریافت فعلی غذا :(روشهای ثبت وزنی و غیر وزنی).
   مثال: food diary
2. مصرف غذا در گذشته (Retrospective data).مثال:-24 h recall و FFQ
3. الگوی مصرف غالب (Diet history)

ارزیابی غذائی (Nutrient intake analysis)

- اطلاعات دقیق از الگوهای اصلی غذائی
- مقدار دقیق دریافت روزانه

روشهای ثبت دریافت روزانه:

1. Specific 24-Hour Food Record
2. Diet History
3. Periodic Food Records- a 3- to 7-day

روشهاي ارزيابي غذايي فردي

- روشهاي آينده نگر: شامل روش گزارش مصرف غذا و بررسي مستقيم است
- روشهاي گذشته نگر: شامل يادداشت24 ساعت غذايي و بسامد خوراكي است.
- روش بسامد خوراكي معمولا تنها اطلاعات كيفي در مورد مصرف غذايي ميدهدالبته درروش بسامد خوراكي نيمه كمي اطلاعات كمي در مورد مصرف غذايي بدست مي آيد.
- هر كدام از روشهاي ارزيابي مصرف غذايي نقاط ضعف وقوت خاص خود را دارندو بسته به هدف بررسي ، روش مناسب انتخاب ميشود.