



Assessment

Step 2

Assessment is the second step of an efficient nutritional management. It is a detailed, more specific and in-depth evaluation of the causes of malnutrition and the risk factors for nutrition and fluid deficiency.

The assessment should be performed by a nutritional expert (e.g. a dietitian, a physician with nutrition expertise, or a nutrition nurse specialist) or by a nutritional support team.

The completion of the assessment allows tailored interventions contributing to a better outcome of the resident.

What are the causes and risk factors of malnutrition?

Risk factors of malnutrition and patient related actions

Assessment is a detailed examination of the risk factors and causes of malnutrition considering underlying diseases and possible side-effects. It includes the evaluation or measurement of general risk factors of malnutrition, social and psycho-social risk factors, nutrition related risk factors, and, where appropriate, laboratory investigations (e.g. blood parameters).

The following table gives you an overview about risk factors of malnutrition and respective examples of patient related actions for a successful intervention.

PEMU Assessment¹ (adapted)

Examples of possible reasons for a reduced food and/or fluid intake

Physical or cognitive impairment

- ☐ Cognitive decline
- ☐ Impaired function of arms and hands
- ☐ Bad condition of the mouth
- ☐ Chewing/dental problems
- ☐ Swallowing problems

Comments
e.g. caused by dementia; doesn't know what to do with the food
e.g. accessibility of meals and beverages; can't hold the cutlery
e.g. dry mouth, mucositis

Lack of appetite/refusal of food

- ☐ Psychological stress (e.g. social isolation)
- ☐ Acute disease
- ☐ Pain
- ☐ Lack of exercise
- ☐ Medical side effects
- ☐ Taste and smell disorder
- ☐ Reduced sensation of thirst
- ☐ Desire for a reduced urinary excretion
- ☐ Cultural/religious/individual habits
- ☐ Fear of food intolerance/allergies

Comments
e.g. type, number of different drugs
e.g. fear of incontinence

Environmental factors

- ☐ Sense of discomfort during mealtime
- ☐ Inadequate mealtimes
- ☐ Inappropriate/lack of tools
- ☐ Tensed relation to the care attendants

Comments
e.g. noises, odors
e.g. timing, duration, flexibility

Food/beverage offer

- ☐ Dissatisfaction with the offer
- ☐ Inappropriate consistency
- ☐ Non-compliance with prescribed diet/
inappropriate diet suspected

Comments
e.g. cultural preferences, food choices

Other reasons:

- ☐
- ☐

Comments

Examples of possible reasons for an increased need of energy and/or fluids

- ☐ Due to illness
- ☐ Hyperactivity/restlessness
- ☐ Heavy sweating

Comments
e.g. fever, infections, tumour, decubitus, diarrhoea, constipation
e.g. constant walking, possibly related to cognitive disease
e.g. overheated rooms, inappropriate clothing

Other reasons:

- ☐
- ☐

Comments

Source: ¹ DNQP (2009), PEMU. Andruck im Expertenstandard für die Pflege: Ernährungsmanagement, Deutsches Netzwerk für Qualitätssicherung in der Pflege, Osnabrück. www.dnqp.de

Assessment of nutritional intake

The food intake of many residents deteriorates over time or during a stay in a hospital. The best way to identify residents at risk of malnutrition is to record their intake of foods and fluids - from admission onwards.

The Food & Fluid protocol is the basis to determine the optimal nutrition therapy plan of the resident. It is part of the Assessment (Step 2) as a 3 day review of food intake and part of a regularly documentation of the nutritional status during Monitoring (Step 4).

Food protocol – Is your resident eating enough?

The food protocol helps to record the intake of a resident, indicating the proportion of a meal that has been eaten (100 %, 75 %, 50 %, 25 %, 0 %; corresponding to 4, 3, 2, 1, 0 quarters of a plate).

The food protocol helps to document and to control the food intake of the resident to be able to define the nutrition therapy plan (Step 3) by calculating the necessary supplementation.

Example: Patient is offered 2000 kcal

☒ Assessment (3 days) ☐ Monitoring (at least once a week) Legend: Normal diet 0 ⊕ 1/4 ⊕ 1/2 ⊕ 3/4 ⊕ 1/1 ⊕



23.9.15	Date	kcal	g protein	Normal diet	Description/type	INI	Supplementation: type and quantity (ONS/tube feeding, parenteral)	INI
	Breakfast	200	10	⊕	2 Sandwiches with butter and jam	Ma		
	Snack	150	8	⊕	Fruit yoghurt	Ma		
	Lunch	700	20	⊕	Menu 3	Ma		
	Snack	200	12	⊕				
	Dinner	250	10	⊕	Ham sandwich		1 bottle ONS	Fa
	Night snack	-	-	⊕		Fa		
Total energy intake via food		1500	60	Fa				

☐ Assessment (3 days) ☐ Monitoring (at least once a week) Legend: Normal diet 0 ⊕ 1/4 ⊕ 1/2 ⊕ 3/4 ⊕ 1/1 ⊕

23.9.15	Date	kcal	g protein	Normal diet	Description/type	INI	Supplementation: type and quantity (ONS/tube feeding, parenteral)	INI
	Breakfast							
	Snack							

Fluid protocol – Is your resident drinking enough?

The fluid protocol helps to record the daily fluid intake of a resident, indicating the amount of fluid which is consumed over the whole day per os, food, ONS, tube feeding and/or parenteral nutrition. The Fluid protocol helps to document and to control the fluid intake of the resident to be able to define the nutrition therapy plan (Step 3) by calculating the needed fluid substitution of the resident.*

		Assessment			Monitoring						
		3 days review of fluid intake			1	2	3	4	5	6	7
Date		23.9.	24.9.	25.9.	24.10.						
 Cup	ml	150	150	150	100						
	ml	150	150	100	150						
	ml	200	250	250	150						
	ml	250	250	250	250						
 Glass/ bowl	ml		50	100	250						
	ml			50	100						
	ml										
	ml										
Fluid intake via ONS (ml)		7-50	850	900	1000						
+ Water content of food (0.33 ml/kcal) (ml)		561	660	627	693						
+ Water content of ONS and/or tube feed* (ml)		312	312	200	234						
+ Water content of parenteral / infusion solution* (ml)		-	-	-	-						
= Total fluid intake (ml)		1620	1820	1730	1930						

** Please find the water content on the product label.

Fluid substitution = Fluid requirement - total fluid intake

Fluid substitution (ml)	525	325	415	215							
Initials	Fa	Mü	Mü	Fa							

*Example: 63 kg resident with a fluid requirement of 2145 ml. (see page 27)

Calculation of fluid substitution

$$\text{FLUID SUBSTITUTION} = \text{Fluid requirement} - \text{total fluid intake}$$

***Calculation basis:** Fluid intake per os in ml
 + Water content of food (0.33 ml/kcal) in ml
 + Water content of ONS and/or tube feed in ml
 + Water content of parenteral nutrition in ml
 = **TOTAL FLUID INTAKE** in ml

Please note: Further details on calculation of fluid substitution are given on page 27.

