

COLLABORATIVE PROBLEM SOLVING IN NUTRIZIONE CLINICA

Giornate catanesi di nutrizione clinica VI edizione



Con il patrocinio di



SINPE
Società Italiana di Nutrizione
Artificiale e Metabolismo



Università
di Catania



23-24 Giugno 2022



Casa la Carrubazza

Via Raffaello Sanzio, 38 - San Gregorio di Catania (CT)

Lo screening nutrizionale in ambito medico e chirurgico. Un orfano da adottare



Dr.ssa Stefania Demontis
S.S.D.Nutrizione Territoriale e DCA
ASL 1 Imperiese





**Ho perso quasi 10 chili da quando mi sono operato.
Non vedo l'ora di poter rimettermi in sesto e salire
su un palco.**

MALATTIA INTERFERISCE CON L'ALIMENTAZIONE

- *NAUSEA/VOMITO*
- *DIARREA*
- *OCCLUSIONE INTESTINALE*
- *MALATTIE ESOFAGEE*
- *NEOPLASIE TESTA/COLLO*
- *MALATTIE NEUROLOGICHE*



DIGIUNO



EFFETTO DEI FARMACI

- DISGEUSIA
- MUCOSITE
- NAUSEA
- DIARREA
- STIPSI

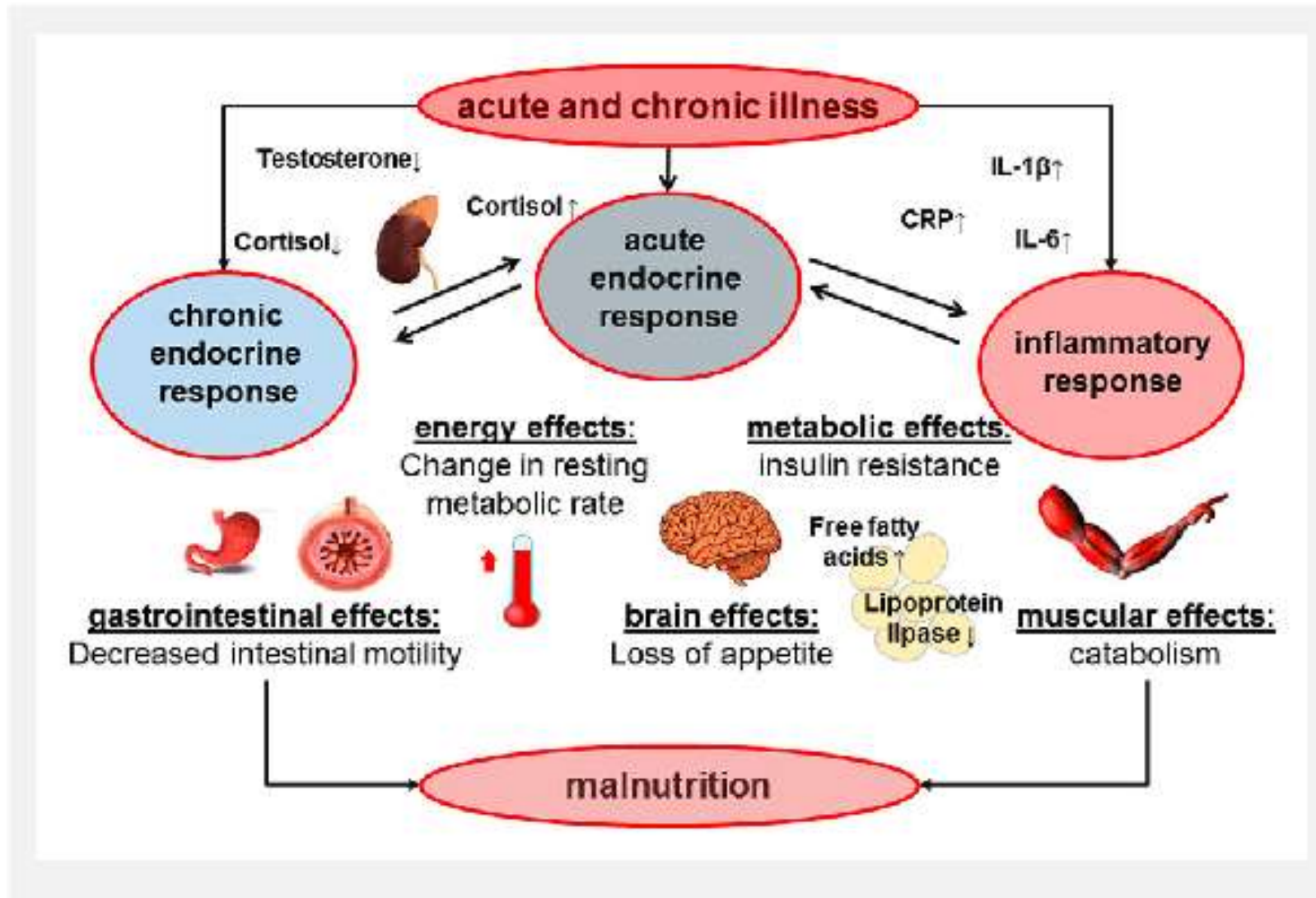


DIFFICOLTA' ALIMENTAZIONE PER FACILE AFFATICABILITA'

- SCOMPENSO CARDIACO
- BPCO
- INSUFFICIENZA RESPIRATORIA
- ANZIANI



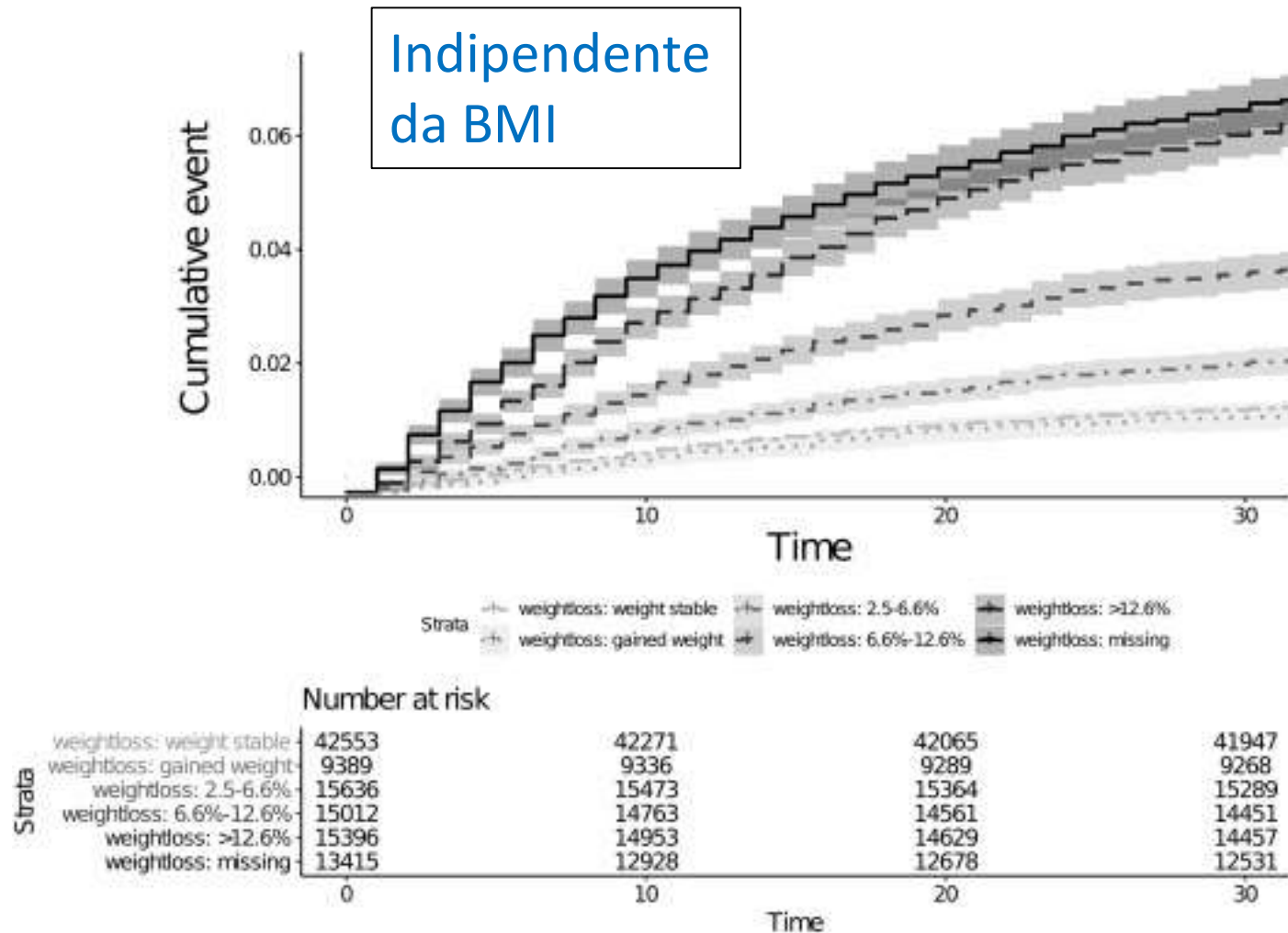
EFFETTI METABOLICI DELLA MALATTIA



DIMAGRIRE FA BENE O MALE?



Calo del peso prima del ricovero e mortalità a 30 gg





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Clinical Nutrition

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Meta-analyses

Nutritional status in older persons according to healthcare setting: A systematic review and meta-analysis of prevalence data using MNA[®]



Emanuele Cereda ^{a,*}, Carlo Pedrolli ^b, Catherine Klersy ^c, Chiara Bonardi ^a, Lara Quarleri ^a, Silvia Cappello ^a, Annalisa Turri ^a, Mariangela Rondanelli ^d, Riccardo Caccialanza ^a

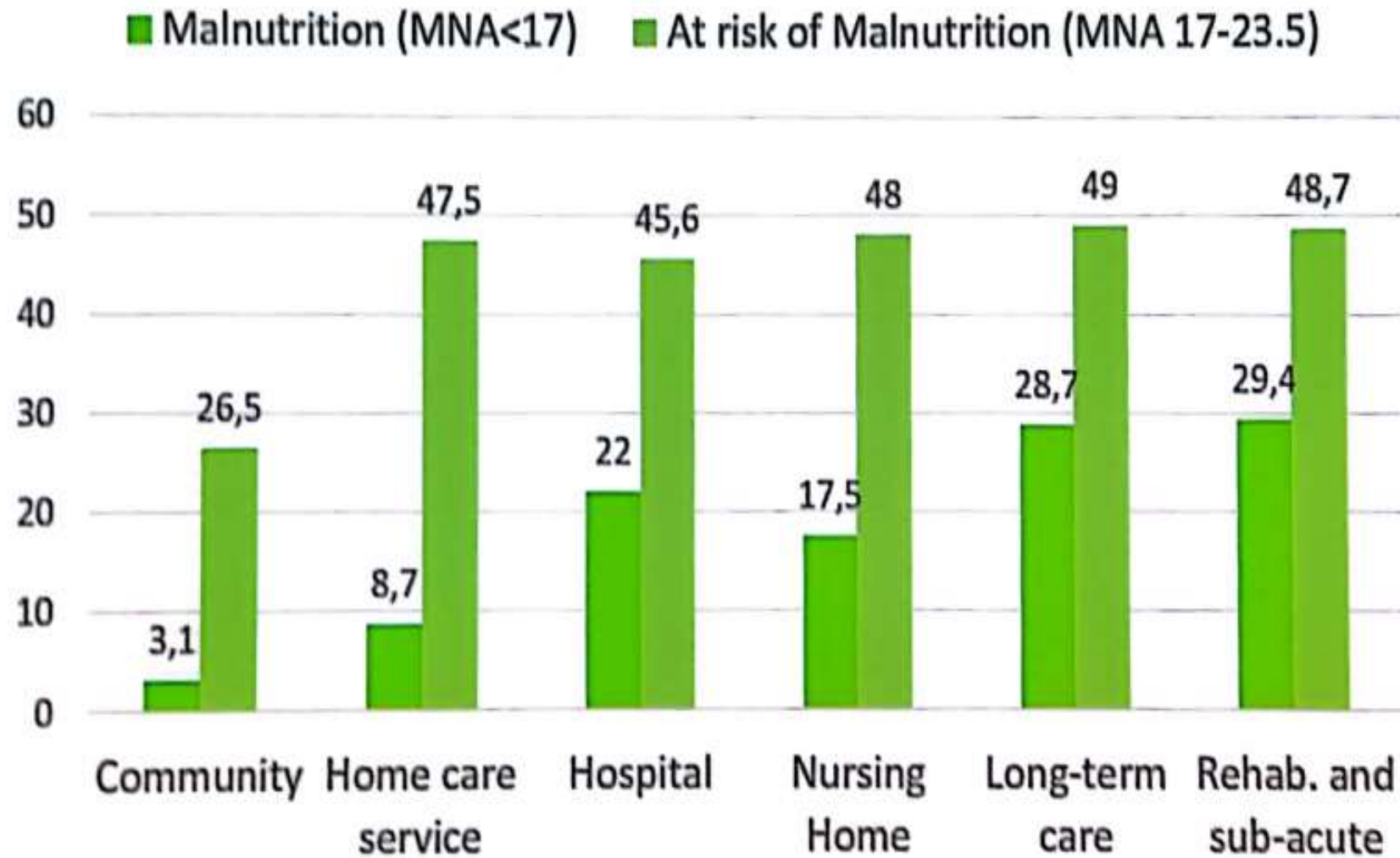
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Prevalence of Malnutrition and Risk of Malnutrition (MNA score) according to Healthcare Setting



Screening nutrizionale

ESPEN Guideline

ESPEN guideline on clinical nutrition and hydration in geriatrics

Dorothee Volkert ^{a,*}, Anne Marie Beck ^b, Tommy Cederholm ^c, Alfonso Cruz-Jentoft ^d, Sabine Goisser ^e, Lee Hooper ^f, Eva Kiesswetter ^a, Marcello Maggio ^{g,h}, Agathe Raynaud-Simon ⁱ, Cornel C. Sieber ^{a,j}, Lubos Sobotka ^k, Dieneke van Asselt ^l, Rainer Wirth ^m, Stephan C. Bischoff ⁿ



Recommendation 5

All older persons – independent of specific diagnosis and including also overweight and obese persons – shall routinely be screened for malnutrition with a validated tool in order to identify those with (risk of) malnutrition.

Grade of recommendation GPP – strong consensus (100% agreement)


Recommendation 6

A positive malnutrition screening shall be followed by systematic assessment, individualized intervention, monitoring and corresponding adjustment of interventions.

Grade of recommendation GPP – strong consensus (100% agreement)

Nutrition screening tools for risk of malnutrition among hospitalized patients

A protocol for systematic review and meta analysis

Cortes, Regina RN^a;  Bennasar-Veny, Miquel PhD^{b,c,*}; Castro-Sanchez, Enrique PhD^d; Fresneda, Sergio MS^{a,b}; de Pedro-Gomez, Joan PhD^{b,c}; Yañez, Aina PhD^{b,c}

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Medicine: October 23, 2020 - Volume 99 - Issue 43 - p e22601
doi: 10.1097/MD.00000000000022601




Malnutrition is a clinical problem of high prevalence, affecting between 30% to 50% of hospitalized patients, depending on age, the screening tool used and the hospital setting.^[6-10] Furthermore, malnutrition is associated with increased morbidity and mortality, length of hospital stay and likelihood of hospital readmission, which in turns raises healthcare costs.^[8,11-13]



Invited Commentary

Malnutrition Syndromes: A Conundrum vs Continuum

Gordon L. Jensen MD, PhD , Bruce Bistrian MD, PhD, Ronenn Roubenoff MD, MHS, Douglas C. Heimbarger MD, MS

First published: 05 November 2009 | <https://doi.org/10.1177/0148607109344724> |

Citations: 121


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Abstract

This provocative commentary critically examines historic definitions for adult malnutrition syndromes as they apply to developed countries with modern healthcare. To stimulate further discussion, the authors propose an updated approach that incorporates current understanding of the systemic inflammatory response to help guide assessment, diagnosis, and treatment. An appreciation of a continuum of inflammatory response in relation to malnutrition syndromes is described. This discussion serves to highlight a research agenda to address deficiencies in diagnostics, biomarkers, and therapeutics of inflammation in relation to malnutrition.

Recommendations for nutritional assessment across clinical practice guidelines: A scoping review

David R. Soriano-Moreno • Gandy Dolores-Maldonado • Alejandro Benites-Bullón • ...

Analís L. Esparza-Varas • Brenda Caira-Chuquineyra • Alvaro Taype-Rondan   • Show all authors

Published: April 27, 2022 • DOI: <https://doi.org/10.1016/j.clnesp.2022.04.023>

Summary

Background & aims

CPGs propose several methods and criteria to perform nutritional assessment, a key process to determine the type and severity of malnutrition, which generates variability in clinical practice and outcomes. The aim of the study was to describe the criteria considered by clinical practice guidelines (CPGs) for nutritional assessment.

Results

We included 18 CPGs (12 elaborated in Europe). The CPGs recommended heterogeneous criteria for nutritional assessment: 16/18 CPGs included at least one body composition parameter (e.g., loss of muscle mass, loss of subcutaneous fat), 15/18 included history related to dietary intake, 15/18 included clinical history (e.g., weight loss), 10/18 included anthropometric measurement (e.g., low body mass index [BMI]), 11/18 included biochemical criteria (e.g., albumin, C-reactive protein), 8/18 included physical examination (e.g., fluid retention, sarcopenia, loss of subcutaneous fat), 8/18 included functional test (e.g., decreased handgrip strength), and 1/18 included catabolic state. Also, 9/18 CPGs mentioned a tool for nutritional assessment, the Subjective Global Assessment (SGA) the most common (8/18). None of the CPGs justified the inclusion of any of the tools or criteria they mentioned.

ESPEN Guideline

ESPEN guideline on clinical nutrition and hydration in geriatrics

Dorothee Volkert ^{a,*}, Anne Marie Beck ^b, Tommy Cederholm ^c, Alfonso Cruz-Jentoft ^d, Sabine Goisser ^e, Lee Hooper ^f, Eva Kiesswetter ^a, Marcello Maggio ^{g,h}, Agathe Raynaud-Simon ⁱ, Cornel C. Sieber ^{a,j}, Lubos Sobotka ^k, Dieneke van Asselt ^l, Rainer Wirth ^m, Stephan C. Bischoff ⁿ



SCREENING NUTRIZIONALE:

- -paziente ospedalizzato:
 - Nutritional RISK SCREENING-2002 (NRS 2002)
 - Malnutrition Universal Screening Tool (MUST)
- -paziente istituzionalizzato o ambulatoriale:
 - .Mini Nutritional Assesment (MNA)

Nutritional Risk Screening (NRS 2002)

Table 1: Initial screening		Yes	No
1	Is BMI <20?		
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-screening 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*. <i>Chronic hemodialysis, diabetes, oncology.</i>
Moderate Score 2	Wt loss >5% in 2 mths 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* Stroke* <i>Severe pneumonia, hematologic malignancy.</i>
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* <i>Intensive care patients (APACHE>10).</i>
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 interpretation 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),
 2) severely ill (score = 3),
 3) moderately undernourished + mildly ill (score 2 +1), or
 4) mildly undernourished + moderately ill (score 1 + 2).

Prototypes for severity of disease

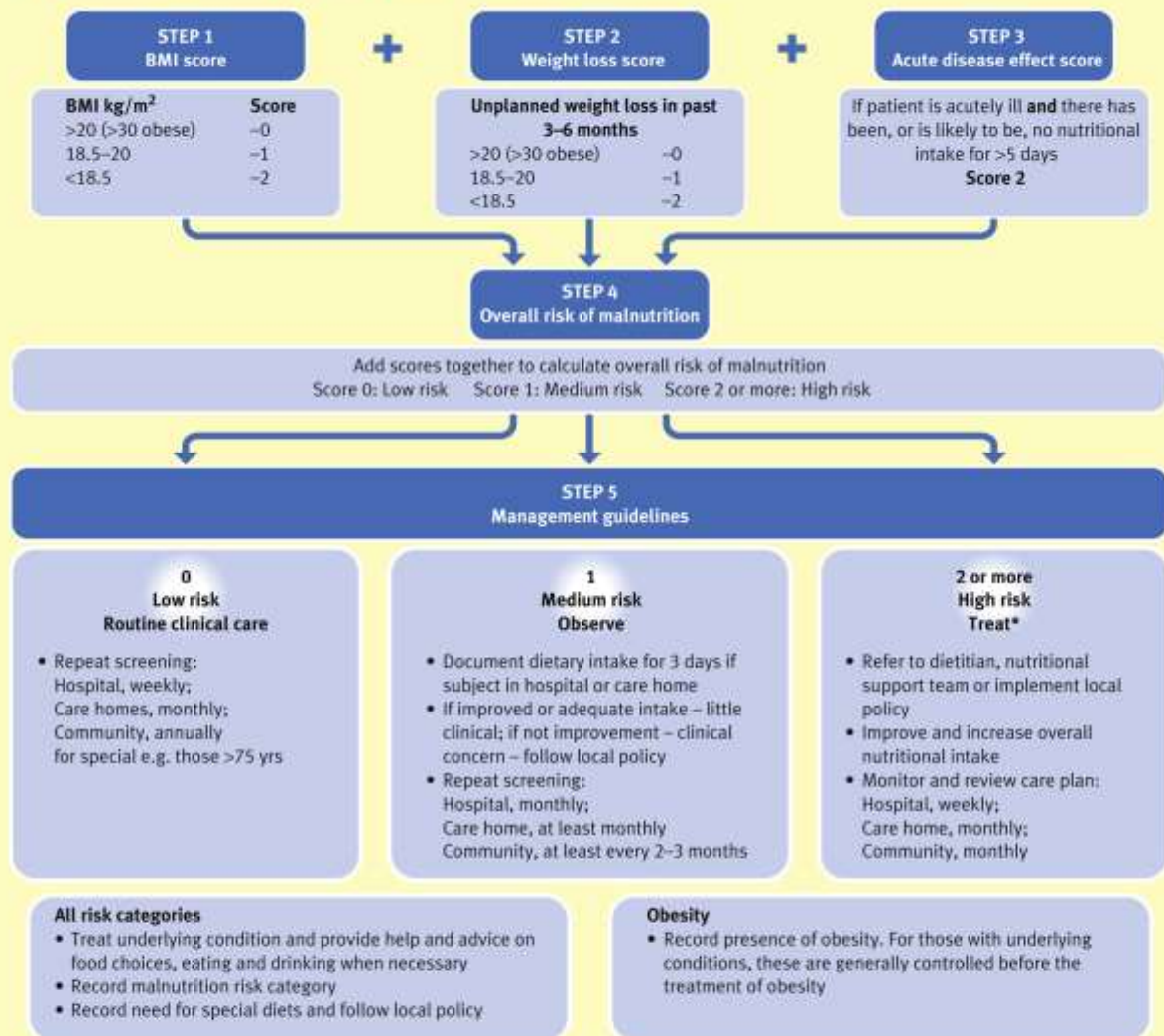
Score = 1: a patient with chronic disease, admitted to hospital due to complications. The patient is weak but out of

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.

The Malnutrition Universal Screening Tool (MUST)



Re-assess subjects identified at risk as they move through care settings. A BMI of <20 kg/m² (i.e. above the WHO BMI <18.5 kg/m² cut-off for undernutrition) is used in the MUST score when screening patients who are unwell, to capture those whose weight is lower than average (BMI 18.5-20) together with other criteria of undernutrition. In this setting it is more important to identify all patients who are undernourished (high sensitivity) and less important to exclude false-positives from a dietetic assessment.

Screening

- A Presenta una perdita dell' appetito? Ha mangiato meno negli ultimi 3 mesi? (perdita d'appetito, problemi digestivi, difficoltà di masticazione o deglutizione)**
 0 = grave riduzione dell'assunzione di cibo
 1 = moderata riduzione dell'assunzione di cibo
 2 = nessuna riduzione dell'assunzione di cibo
- B Perdita di peso recente (<3 mesi)**
 0 = perdita di peso > 3 kg
 1 = non sa
 2 = perdita di peso tra 1 e 3 kg
 3 = nessuna perdita di peso
- C Motricità**
 0 = dal letto alla poltrona
 1 = autonomo a domicilio
 2 = esce di casa
- D Nell' arco degli ultimi 3 mesi: malattie acute o stress psicologici?**
 0 = sì 2 = no
- E Problemi neuropsicologici**
 0 = demenza o depressione grave
 1 = demenza moderata
 2 = nessun problema psicologico
- F Indice di massa corporea (IMC = peso / (altezza)² in kg/ m²)**
 0 = IMC <19
 1 = 19 ≤ IMC < 21
 2 = 21 ≤ IMC < 23
 3 = IMC ≥ 23

Valutazione di screening
 (totale parziale max. 14 punti)

12-14 punti: stato nutrizionale normale
 8-11 punti: a rischio di malnutrizione
 0-7 punti: malnutrito

Per una valutazione più approfondita, continuare con le domande G-R

Valutazione globale

- G Il paziente vive autonomamente a domicilio?**
 1 = sì 0 = no
- H Prende più di 3 medicinali al giorno?**
 0 = sì 1 = no
- I Presenza di decubiti, ulcere cutanee?**
 0 = sì 1 = no

Ref. Vellas B, Villars H, Abellan G, et al. Overview of MNA® - Its History and Challenges. J Nut Health Aging 2006; 10: 456-465.
 Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. Screening for Undernutrition in Geriatric Practice: Developing the Short-Form Mini Nutritional Assessment (MNA-SF). J. Geront 2001; 56A: M366-377.
 Guigoz Y. The Mini-Nutritional Assessment (MNA®) Review of the Literature - What does it tell us? J Nutr Health Aging 2006; 10: 466-487.
 © Société des Produits Nestlé, S.A., Vevey, Switzerland, Trademark Owners
 © Nestlé, 1994, Revision 2006. N67200 12/99 10M
 Per maggiori informazioni : www.mna-elderly.com

- J Quanti pasti completi prende al giorno?**
 0 = 1 pasto
 1 = 2 pasti
 2 = 3 pasti

- K Consuma?**
- Almeno una volta al giorno dei prodotti lattiero-caseari? sì no
 - Una o due volte la settimana uova o legumi? sì no
 - Oni giorni della carne, del pesce o del pollame? sì no
- 0.0 = se 0 o 1 sì
 0.5 = se 2 sì
 1.0 = se 3 sì

- L Consuma almeno due volte al giorno frutta o verdura?**
 0 = no 1 = sì

- M Quanti bicchieri beve al giorno? (acqua, succhi, caffè, té, latte...)**
 0.0 = meno di 3 bicchieri
 0.5 = da 3 a 5 bicchieri
 1.0 = più di 5 bicchieri

- N Come si nutre?**
 0 = necessita di assistenza
 1 = autonomamente con difficoltà
 2 = autonomamente senza difficoltà

- O Il paziente si considera ben nutrito? (ha dei problemi nutrizionali)**
 0 = malnutrizione grave
 1 = malnutrizione moderata o non sa
 2 = nessun problema nutrizionale

- P Il paziente considera il suo stato di salute migliore o peggiore di altre persone della sua età?**
 0.0 = meno buono
 0.5 = non sa
 1.0 = uguale
 2.0 = migliore

- Q Circonferenza brachiale (CB, cm)**
 0.0 = CB < 21
 0.5 = CB ≤ 21 CB ≤ 22
 1.0 = CB > 22

- R Circonferenza del polpaccio (CP in cm)**
 0 = CP < 31
 1 = CP ≥ 31

Valutazione globale (max. 16 punti)

Screening

Valutazione totale (max. 30 punti)

Valutazione dello stato nutrizionale

24-30 da 24 a 30 punti stato nutrizionale normale
 17-23.5 da 17 a 23,5 punti rischio di malnutrizione
 meno 17 punti cattivo stato nutrizionale

Mini Nutritional Assessment
MNA®

ESPEN Endorsed Recommendation

GLIM criteria for the diagnosis of malnutrition – A consensus report from the global clinical nutrition community[☆]

T. Cederholm^{a, b, *, 1}, G.L. Jensen^{c, 1}, M.I.T.D. Correia^d, M.C. Gonzalez^e, R. Fukushima^f, T. Higashiguchi^g, G. Baptista^h, R. Barazzoniⁱ, R. Blaauw^j, A. Coats^{k, l}, A. Crivelli^m, D.C. Evansⁿ, L. Gramlich^o, V. Fuchs-Tarlovsky^p, H. Keller^q, L. Llido^r, A. Malone^{s, t}, K.M. Mogensen^u, J.E. Morley^v, M. Muscaritoli^w, I. Nyulasi^x, M. Pirlich^y, V. Pisprasert^z, M.A.E. de van der Schueren^{aa, ab}, S. Siltharm^{ac}, P. Singer^{ad, ae}, K. Tappenden^{af}, N. Velasco^{ag}, D. Waitzberg^{ah}, P. Yamwong^{ai}, J. Yu^{aj}, A. Van Gossum^{ak, 2}, C. Compher^{al, 2}, GLIM Core Leadership Committee, GLIM Working Group³

Risk screening



Diagnostic Assessment



Diagnosis



Severity Grading

At risk for malnutrition

- Use validated screening tools



Assessment criteria

- **Phenotypic**
 - Non-volitional weight loss
 - Low body mass index
 - Reduced muscle mass
- **Etiologic**
 - Reduced food intake or assimilation
 - Disease burden/inflammatory condition



Meets criteria for malnutrition diagnosis

- Requires at least 1 Phenotypic criterion and 1 Etiologic criterion



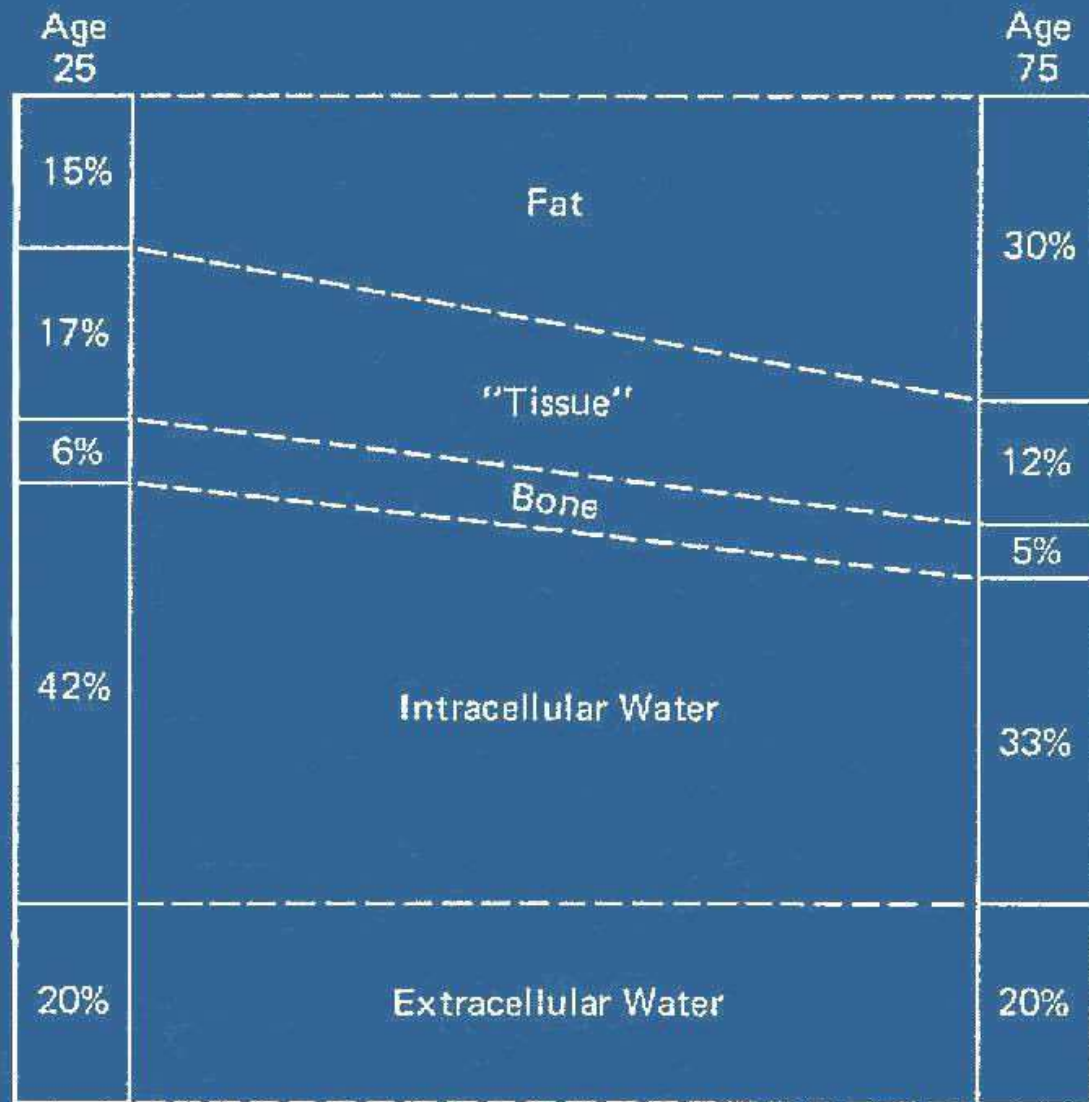
Determine severity of malnutrition

- Severity determined based on Phenotypic criterion

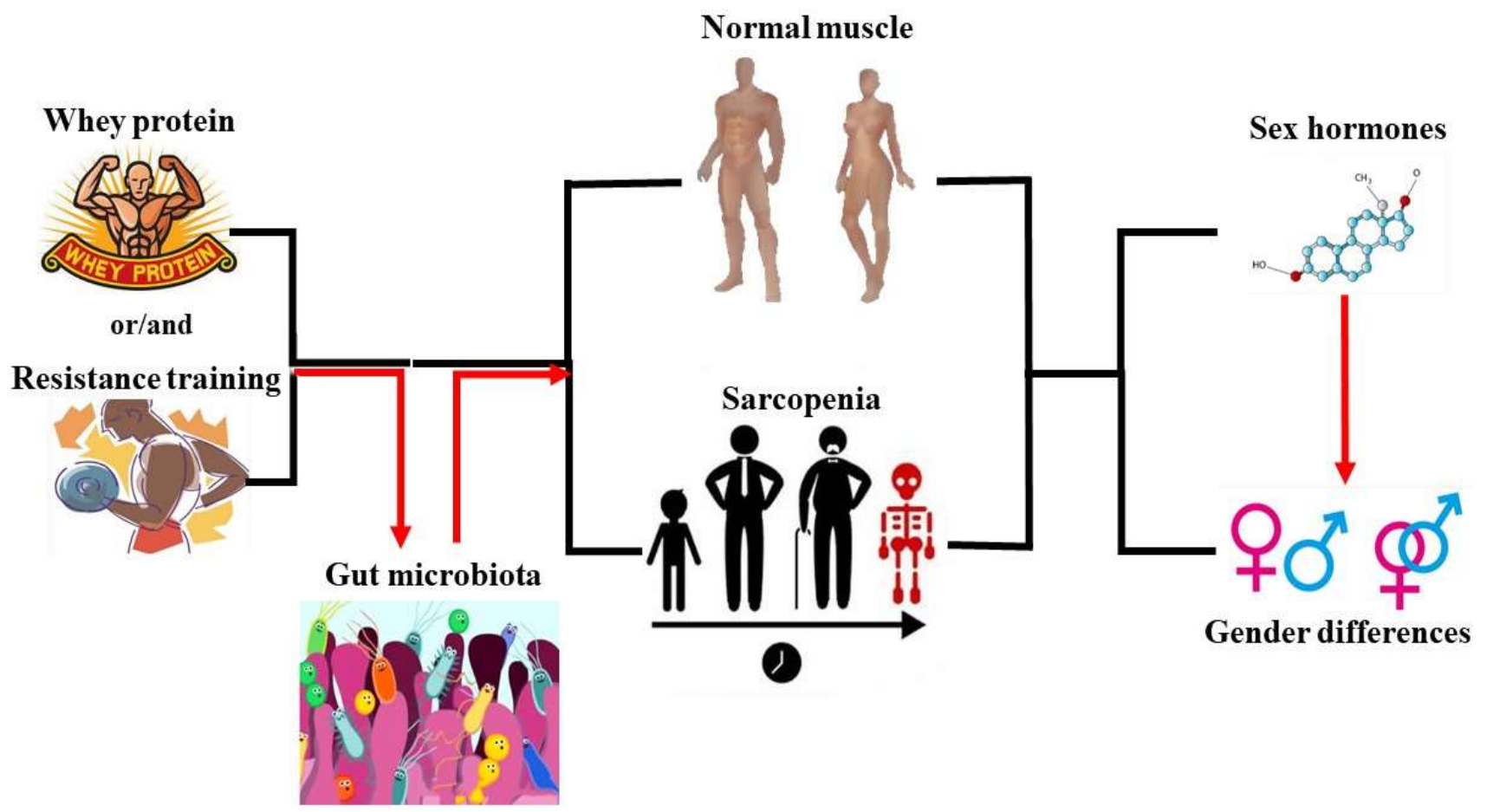
GLIM diagnostic scheme for screening, assessment, diagnosis and grading of malnutrition.

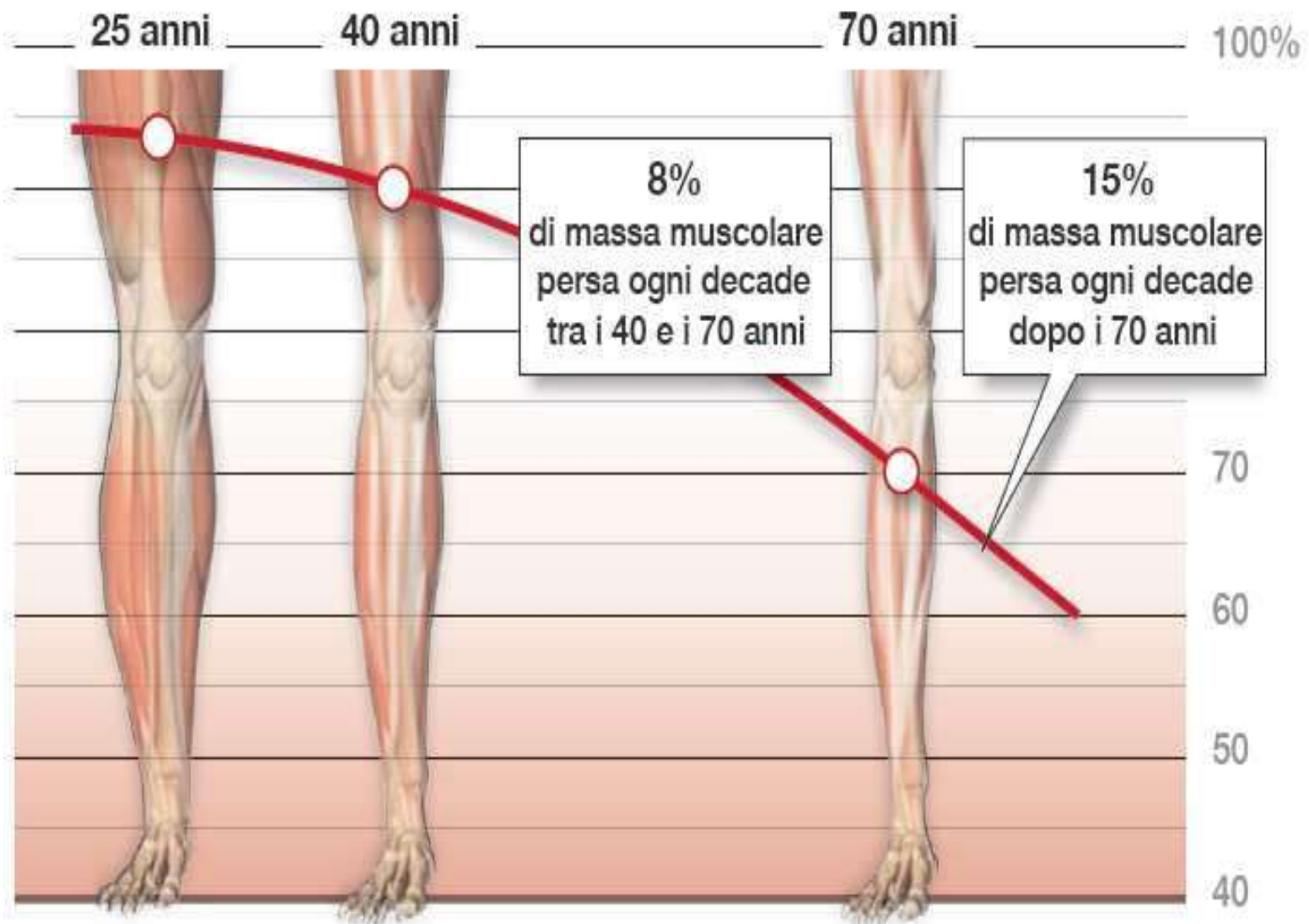
Table 4. Thresholds for Severity Grading of Malnutrition Into Stage 1 (Moderate) and Stage 2 (Severe) Malnutrition.

	Phenotypic Criteria ^a		
	Weight Loss (%)	Low Body Mass Index (kg/m ²) ^b	Reduced Muscle Mass ^c
Stage 1/moderate malnutrition (requires 1 phenotypic criterion that meets this grade)	5%–10% within the past 6 months, or 10%–20% beyond 6 months	<20 if <70 years, <22 if ≥70 years	Mild-to-moderate deficit (per validated assessment methods; see below)
Stage 2/severe malnutrition (requires 1 phenotypic criterion that meets this grade)	>10% within the past 6 months, or >20% beyond 6 months	<18.5 if <70 years, <20 if ≥70 years	Severe deficit (per validated assessment methods; see below)



*Distribution of major body components with age.
 (Goldman R. J Am Geriatric Soc 18:765, 1970)*





Fonte: Grimby and Saltin, *Clinical Physiology*, 1983; Janssen, et al., *Journal of Applied Physiology*, 2000

- La malnutrizione riveste un ruolo chiave nello sviluppo della sarcopenia e della fragilità

SARC F QUESTIONARIO

Component	Question	Scoring
Strength	How much difficulty do you have in lifting and carrying 10 pounds ($\approx 4,5$ Kg, ndr)?	None = 0 Some = 1 A lot or unable = 2
Assistance in walking	How much difficulty do you have walking across a room?	None = 0 Some = 1 A lot, use aids, or unable = 2
Rise from a chair	How much difficulty do you have transferring from a chair or bed?	None = 0 Some = 1 A lot or unable without help = 2
Climb stairs	How much difficulty do you have climbing a flight of 10 stairs?	None = 0 Some = 1 A lot or unable = 2
Falls	How many times have you fallen in the past year?	None = 0 1 - 3 falls = 1 4 or more falls = 2

DIAGNOSI MALNUTRIZIONE E SARCOPENIA

GLIM CRITERIA

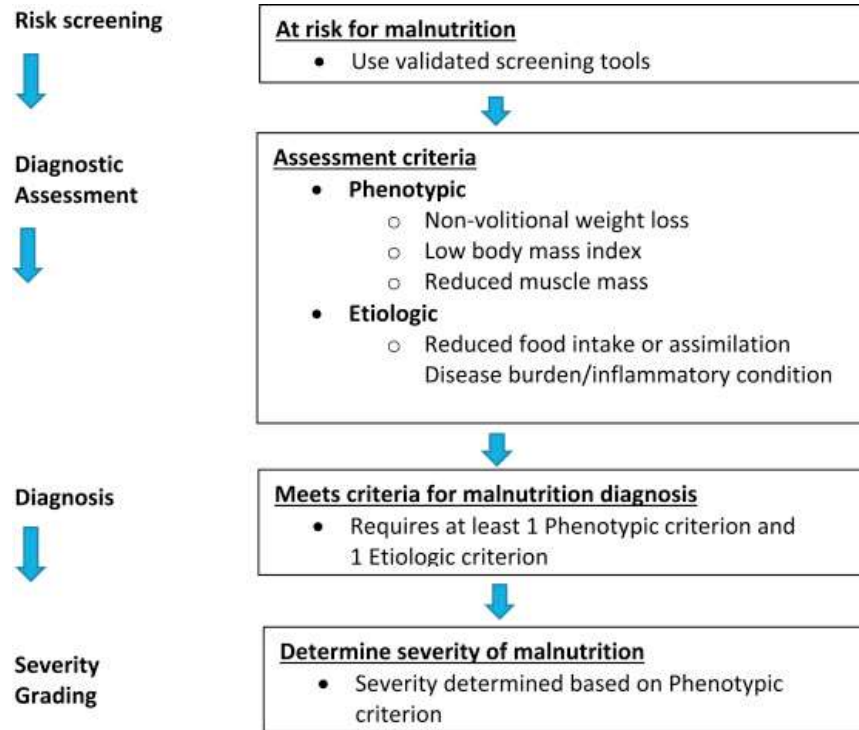
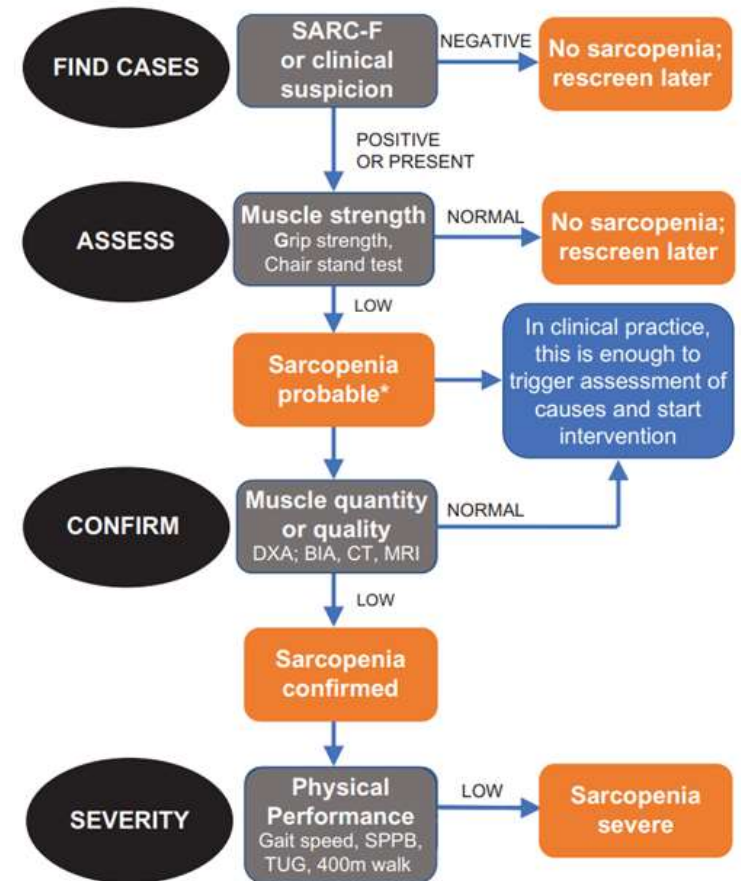
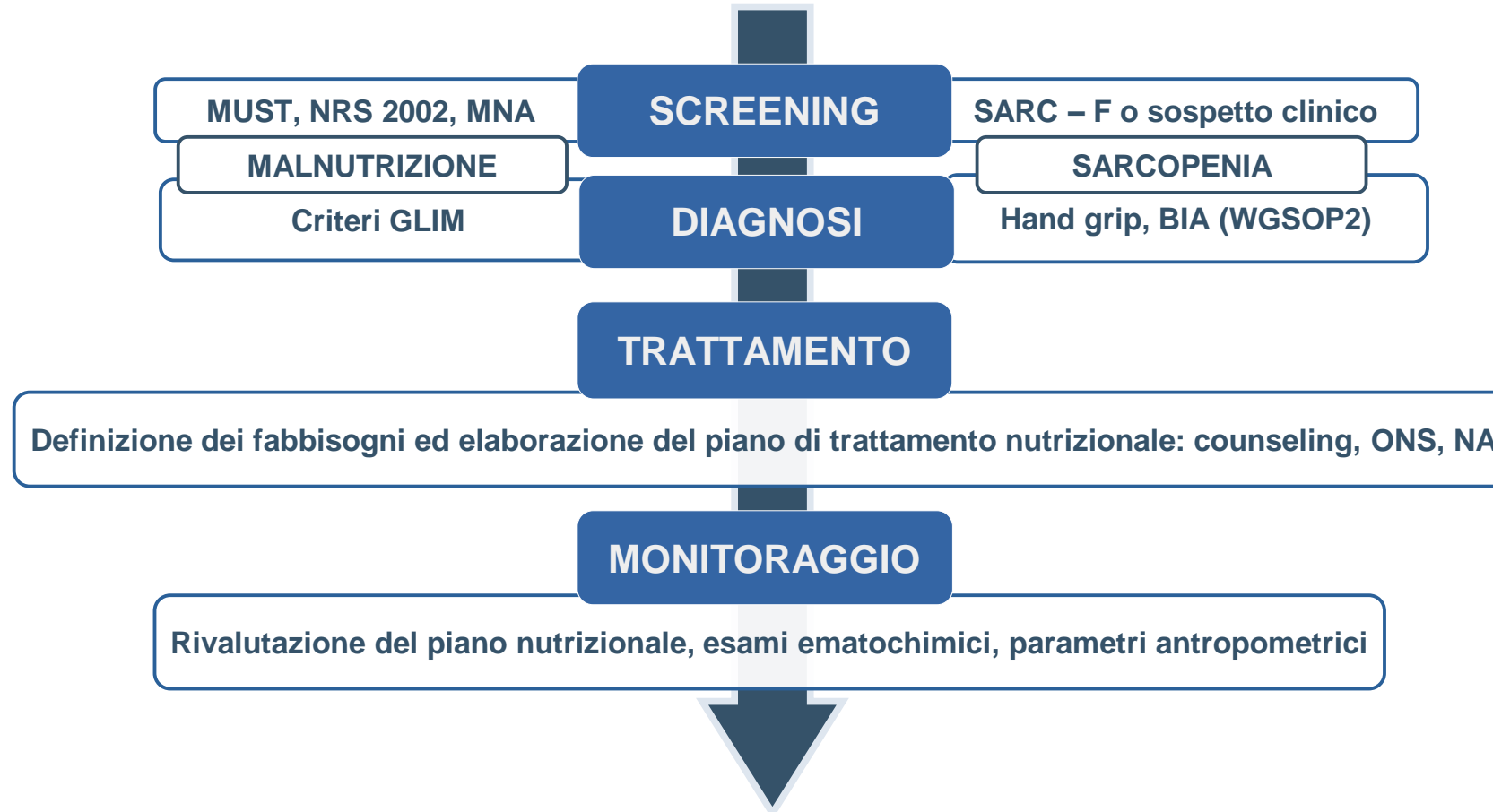


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Algoritmo nutrizionale



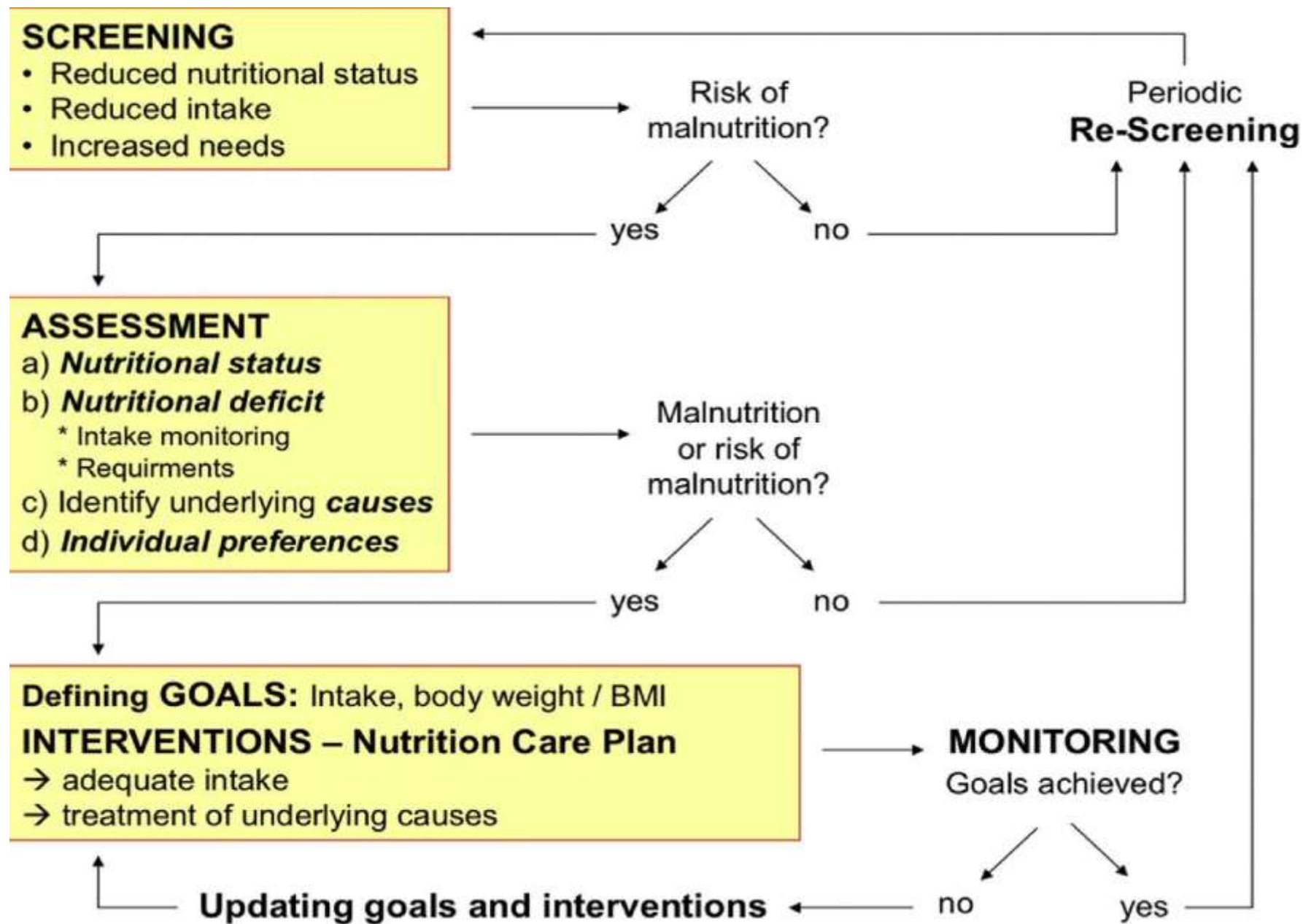


Fig. 1. Process of nutritional care for older persons. Modified from Volkert et al..

Invited Review

Nutrition Screening vs Nutrition Assessment: What's the Difference?

Maria Isabel Toulson Davisson Correia MD, PhD 

First published: 14 December 2017 | <https://doi.org/10.1177/0884533617719669> |

Citations: 21

Screening and assessment imply different processes, with the former indicating risk factors for a deprived nutrition condition and the latter providing the nutrition diagnosis. Both should be routinely performed at hospital admission according to recommended guidelines; however, this is not the reality worldwide, and undernutrition remains highly prevalent in the hospital setting. Therefore, the objective of the current review is to delve into the principles leading to nutrition status deficiencies and how they should be addressed by screening and assessment. A critical appraisal for the reasons associated with the misunderstanding between screening and assessing is proposed without further discussing the many available screening tools while approaching some of the assessment instruments.

Review

Effectiveness and efficacy of nutritional therapy: A systematic review following Cochrane methodology ☆


Maurizio Muscaritoli ^{a, 1} ✉, Zeljko Krznarić ^{b, 1}, Pierre Singer ^c, Rocco Barazzoni ^d, Tommy Cederholm ^e, Alain Golay ^f, André Van Gossum ^g, Nicholas Kennedy ^h, Georg Kreymann ⁱ, Alessandro Laviano ^g, Tajana Pavić ^j, Livia Puljak ^k, Dario Sambunjak ^l, Ana Utrobičić ^k, Stéphane M. Schneider ^m

Conclusions

In conclusion, this is the first attempt to summarize the best evidence available on the clinical impact of malnutrition and the benefits deriving from its treatment, including a reduction in hospital readmission rates and costs. One clear finding is the cost-effectiveness of nutritional therapy, most evident from large, homogeneous studies. The results support the use of nutritional therapy to reduce healthcare costs. Another finding is the heterogeneity and the overall limited quality of

Nutrition screening tools for risk of malnutrition among hospitalized patients

A protocol for systematic review and meta analysis

Cortes, Regina RN^a;  Bennasar-Veny, Miquel PhD^{b,c,*}; Castro-Sanchez, Enrique PhD^d; Fresneda, Sergio MS^{a,b}; de Pedro-Gomez, Joan PhD^{b,c}; Yañez, Aina PhD^{b,c}

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Medicine: October 23, 2020 - Volume 99 - Issue 43 - p e22601


doi: 10.1097/MD.00000000000022601

Although a universally accepted definition of malnutrition is still lacking,^[2] the European Society for Clinical Nutrition and Metabolism (ESPEN)^[3] defined malnutrition by the presence of one of the following criteria:

- 1. body mass index (BMI) < 18.5 kg/m²;
- 2. unintentional weight loss and reduced BMI (age dependent cut-offs) or
- 3. unintentional weight loss and reduced gender dependent fat free mass index.

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There is no anthropometric or analytical value alone useful to carry out a diagnosis of malnutrition and there is no international consensus about clinical diagnosis.^[2,19] Although a nutritional screening allows for the detection of patients at high risk, such screening is only performed in ~10% to 20% of hospitalized patients, even in hospitals with a clinical nutrition department.^[6,11] Furthermore, only half of hospitalized patients undergo laboratory tests, anamnesis or physical examination to evaluate their nutritional status.^[20]

Additionally, there is also some confusion in the literature regarding the terminology surrounding malnutrition. For example, nutritional screening (which refers to the identification of malnutritional risk) and nutritional assessment (which aims to establish a nutritional diagnosis to identify malnutrition)^[18] are different steps of nutrition care in hospitalized patients.

Nutrition screening tools for risk of malnutrition among hospitalized patients

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There are many nutritional screening tools^[21] as Nutritional Risk Screening 2002 (NRS-2002),^[22] recommended by ESPEN; Malnutrition Universal Screening Tool (MUST),^[23] used at community and hospital levels; Mini Nutritional Assessment (MNA),^[24] used in patients over 65 years; Short Nutritional Assessment Questionnaire (SNAQ)^[25] used, regardless of age, in hospitals, nursing homes and at community level; and Malnutrition Screening Tool (MST)^[26] completed by the patient. While numerous nutritional screening tools are in use, their levels of validity, reliability, generalizability and agreement vary.^[27] These tools assess different clinical aspects of patients with objective measures (recent weight loss, changes in intake, presence of physical and/or mental illnesses related to a decrease in intake or malabsorption of nutrients) and assign a score that allows classifying patients according to their risk of malnutrition.

Nutrition screening tools for risk of malnutrition among hospitalized patients

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doi: 10.1097/MD.00000000000022601

On the other hand, the American Society for Parenteral and Enteral Nutrition (ASPEN)^[5] establishes that at least 2 of the following 6 criteria should be fulfilled to meet the diagnostic criteria of malnutrition: low energy intake, weight loss, loss of muscle mass, loss of subcutaneous fat, fluid accumulation, and diminished hand grip strength.

Nevertheless, there are screening tools that identify clinical variables similar to the previous ones but that classify the risk of malnutrition according to a subjective final assessment made by the observer, such as the Subjective Global Assessment (SGA),^[28] recommended by the ASPEN. This tool, used in all healthcare settings, has been used as a gold standard for the validation of other nutrition screening tools.^[26,29]

Despite the availability of these nutritional screening tools, there is no international consensus on which is the most valid tool to use in the hospital setting.^[30]

Quando va effettuato lo screening nutrizionale? Ogni quanto tempo?



- ✓ La procedura va eseguita da parte del personale sanitario del reparto di degenza **entro le 48 ore dall'accettazione**
- ✓ Va ripetuta **ogni 7 giorni**, anche nei pazienti senza rischio di malnutrizione all'ingresso in ospedale

Caratteristiche generali degli screening nutrizionali

La procedura di valutazione dovrebbe comprendere:

- ✓ rilevazione di peso e statura per il calcolo dell'Indice di Massa Corporea
- ✓ rilevazione del calo ponderale negli ultimi 3-6 mesi
- ✓ rilevazione e valutazione dell'introito alimentare
- ✓ valutazione della gravità della malattia



Ministero della Salute, Direzione generale per l'igiene e la sicurezza degli alimenti e la nutrizione,
"Linee di indirizzo nazionale per la ristorazione ospedaliera, assistenziale, scolastica", 2021

Practice Guideline

> *JPEN J Parenter Enteral Nutr.* Mar-Apr 2010;34(2):156-9.

doi: 10.1177/0148607110361910.

Adult starvation and disease-related malnutrition: proposal for etiology-based diagnosis in the clinical practice setting from the International Consensus Guideline Committee

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PMID: 20375423 DOI: 10.1177/0148607110361910



IATROGENIC MALNUTRITION

The Skeleton in the Hospital Closet

As awareness of the role of nutrition in recovery from disease increases, physicians are becoming alarmed by the frequency with which patients in our hospitals are being malnourished and even starved. One authority regards physician-induced malnutrition as one of the most serious nutritional problems of our time.

by CHARLES E. BUTTERWORTH, Jr., M.D.

The Skeleton in the Hospital Closet

As awareness of the role of nutrition in recovery from disease increases, physicians are becoming alarmed by the frequency with which patients in our hospitals are being malnourished and even starved. One authority regards physician-induced malnutrition as one of the most serious nutritional problems of our time.

Avere nel nostro ospedale pazienti malnutriti o affamati solo perché si trovano lì, potrebbe non essere nulla di nuovo. Forse è sempre stato così. Forse sta peggiorando a causa della rapida spersonalizzazione della cura del paziente....

Diventa imperativo assicurarci che la malnutrizione prevenibile non contribuisca ad aumentare la mortalità, la morbilità ed a prolungare la durata dell'ospedalizzazione dei pazienti ricoverati.

It seems strange that so little attention has been paid to the essential role of good nutrition in the maintenance of health, and particularly in recovery from acute illness or injury. Stranger still, however, is how frequently one sees the hospital stay prolonged and the patients' suffering made worse by what we are now recognizing as frank mismanagement, if not downright neglect, of the patients' nutritional health in our hospitals.

I am convinced that iatrogenic mal-

perhaps it's getting worse because of the rapid depersonalization of patient care. One thing seems certain, and that is that any physician who can recognize the signs and symptoms of malnutrition and starvation will have plenty to observe if he'll look around any large, city hospital.

Surely, the general public, most physicians, dietitians, nurses and others involved in patient care share the conviction that when a sick person commits himself to the total, unques-

advances that have been made in some highly specialized areas of medical, nursing, and dietetic care. It is well known, for example, that malnutrition interferes with wound healing and increases susceptibility to infection. It thus becomes imperative to ensure that preventable malnutrition does not contribute to the mortality, morbidity, and prolonged bed-occupancy rates of our hospital population. So it's time to swing open the door and have a look at this skeleton in the hospital closet.

PREVENTION
IS BETTER
THAN CURE