

## Special Article

# Conclusions of the II SENPE discussion forum on: Hospital malnutrition

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Malnutrition still is the more common cause of morbidity and mortality increase and one of the major health problems worldwide, especially affecting a very particular group of patients, as are hospitalized patients in whom inability to eat and illness are usual, becoming a distinct entity known as hospital malnutrition.

Malnutrition affects 30%-50% of hospitalized patients of any age, for surgical as well as for medical causes, increasing as hospital stay extends.

It is worth mentioning that from the first published studies on hospital malnutrition prevalence to the more recent ones, percentages of malnourished hospitalized patients have not substantially changed. Pointing out some of the causes of this malnutrition we may highlight illness, diagnostic and therapeutic procedures, and the low relevance given to the nutritional status in the medical history, and therefore in coding systems, in many cases due to the general unawareness of this problem with the subsequent lack of detection and worsening of malnutrition during hospital stay.

In order to institute an adequate nutritional support as soon as possible, it is important to identify malnourished patients, or those at risk for malnutrition. Thus, computerized detection systems or population-based screenings are necessary (at hospital admission and stay), so they can act as alarms. These tools should be applicable in most of the hospitals, and have the capability of offering replicable, significant and reliable data in order to predict the results of more sophisticated methods. These screening methods should be used routinely to enable a

good codification and underline the importance of malnutrition and nutritional support in the GRDs (Groups of Related Diagnoses). We consider that in order to develop this issue it is mandatory to establish a nexus or working group between the SENPE and the Spanish Society of Medical Documentation (SEDOM).

### Tool definitions for diagnosing hospital malnutrition

1. It is necessary to perform a nutritional screening in all patients at their hospital admission and, occasionally, at pre-admission to detect their nutritional risk status.
  - Screening must be simple and applicable by non-specialized staff, and it will be used to identify those patients at nutritional risk on admission as well as during their hospital stay. Therefore, all patients will be evaluated along their clinical course.
  - Screening method selection: The selected screening method must be evaluated in relation its predictive value, content validity, and inter-observer variability. Among its characteristics, the following must stand out:
    - Easiness of application.
    - Easiness of understanding.
    - Patients and health care professionals acceptability.
    - Relation to treatment plan.
    - Applicability to all patients.
  - Screening must include clinical and laboratory parameters:
    - Within clinical parameters, the following must be included:
      - \* Age.

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- \* BMI<sup>1</sup>.
  - \* Weight loss in the last months.
  - \* Food intake.
  - Within laboratory parameters, it is advisable to get (by priority order):
    - \* Albumin.
    - \* Total lymphocyte count.
    - \* Total cholesterol.
2. It may be useful to obtain the data through a computerized system<sup>2</sup>.
  3. Screening must also consider nutritional demands associated to:
    - Patient's disease that motivates the admission.
    - Patient's previous and at the time of admission nutritional status.
    - Patient's ability to eat foods.

The final screening outcome will be presented as a nutritional risk report to inform and make the clinician in charge of the patient aware of, as well as for documental proof in the clinical chart.
  4. Screening will be repeated periodically throughout the patient's hospital course and if malnutrition were detected all the results should be evaluated by the nutritional units or by the nutritional support teams.
  5. Finally:
    - It is essential to educate all the health care staff so its collaboration can be obtained.
    - The switching on of this element underlines the need for reevaluating the staff dotation in nutritional units or teams.
    - The use of specific screening methods is recommended for pediatric age.

## Diagnosis and GRDs

1. Hospital information systems constitute the essential clinical management tools.
  - Although European directives establish that managers, clinicians, and general services must be implicated in nutritional intervention, malnutrition is not adequately reflected on the information systems leading to underreporting in current hospital services (HS).
  - On the other hand, the impact of nutritional intervention is not sufficiently reflected on in-

<sup>1</sup> In case of not being able to weight, measure the height or know the weight loss, other body segments determinations will be used (CMB, knee-ankle, ulnar bone length...). In case of all of this would be impossible, BMI may be estimated by means of patient's appearance: normal, overweighted, cachectic.

<sup>2</sup> Considering the positive predictive values of computerized systems presented at this II Forum, wherever their application is possible but clinical data mentioned above could not be obtained, it will be tried to include the latter in those patients showing positive results in the malnutrition laboratory check-up in order to complete their nutritional assessment.

- formation systems either, also leading to underreporting in current HS.
- Managers and clinicians inexperienced in nutrition are unaware of issues related to malnutrition. There exist an occult expenditure and an ignored improvement tool.
  - There are evidences that malnutrition diagnosis and nutritional intervention are cost-effective. Therefore, it would be convenient to elaborate a catalogue of nutritional services available in all hospital centers according to their assistance level.
2. Health care personnel of Nutrition Units or Teams must be implicated in hospital micromanagement, and should request clinicians from final services to include in the discharge report the information about the malnutrition diagnosis and the nutritional support procedures (Parenteral Nutrition, Enteral Nutrition, Supplements, Complementary Nutrition, Nutritional Assessment, Assistance of Nutrition Unit...) received by the patient. For that, the Documentation Service should be requested to create a catalogue of services for the Nutrition Unit or Team actions. In any case, Reports on Nutritional Risk obtained by the Nutrition Unit or Team as a result of application of the above mentioned admission screening should have a documental value; like for the Reports on the Nutritional Case issued at the end of nutritional support treatments with PN and EN.
  3. Opportunity for improvement: In agreement with the *Recommendations of the European Council Ministers Committee (Resolution ResAp (2003)3 on nutrition and nutritional assistance in hospitals*, a number of fields can be detected with room for intervention and improvement:
    - Patients' prognosis: morbidity and mortality.
    - Detection of the intervention.
    - Global quality and processes.
    - Stays reduction.
    - Costs reduction.
    - Room for new processes.
    - Hospitalization assessment.
    - Implication of:
      - Clinicians.
      - People in charge of nutritional care.
      - Codification units.
      - Medical direction.
      - Management.
    - Information systems.
    - Education and Communication.
  4. We should bear in mind that financial support for our hospitals is influenced by the data gathered from the center's information systems. Therefore, it is essential to make final services aware of the need for improving information on the nutritional status in the CMBDH data. This makes necessary to create consensus and agreements between Nutrition Units and Teams and the Documentation Service.

5. In order to achieve a high efficacy and efficiency level, we must establish the codification technical criteria with regards to malnutrition definitions. To accomplish that, SENPE and SEDOM have created a Working Group on Malnutrition and GRDs. A joint broadcast of the results will take place for all clinicians.

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