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Individualised nutritional support in medical inpatients – a practical guideline

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Anic Baumgartner et al. are to be congratulated for their comprehensive and essential review about nutritional support in medical inpatients, now published in *Swiss Medical Weekly* [1].

The significance of malnutrition in medical patients in hospitals has finally been recognised, and malnutrition has become an independent diagnosis. This is relevant not only for the care of patients but also economically, and as such is of paramount importance in health care.

Routine screening for malnutrition is followed by a thorough clinical assessment from an experienced dietitian, and thereafter by appropriate nutritional therapy.

The authors emphasise an interdisciplinary approach incorporating dietitians, nurses, physicians and the hospital kitchen. These professionals are together able to manage the patients with the aim of improving patient care. If malnutrition is present or if the patient is at a significant risk of developing malnutrition, a nutritional care plan, with estimates of energy and protein needs in particular, must be established. Although these needs are not easy to define, the authors give important guidelines, including how much energy, protein and micronutrients should be given. They recommend a comprehensive screening for several micronutrients, e.g., vitamins, among other parameters. However, analyses of micronutrients, especially those of vitamin E, vitamin C and selenium, are difficult to interpret. Thus, vitamin E as a single parameter is hard to evaluate without knowledge of blood lipids [2], and therefore might not be analysed, or not correctly interpreted, in clinical routine.

Disease-specific supplements, e.g., immunonutrition, especially diets formulated for wound healing and supplementation with fibre, are critically discussed. Thus, enteral formulae enriched with different types of fibre are recommended, although many papers are inconclusive. However, fibre-containing formulae may reduce diarrhea and improve gastrointestinal tolerance.

The route of nutrition administration is discussed in detail, and keeping in mind the maxim "if the gut works, use it!", oral nutrition is favoured whenever possible.

One important aspect discussed by the authors is when nutritional support should be stopped in medical inpatients. They advise discontinuing nutritional support when ≥75% of recommended energy needs are met orally.

I appreciate the authors' discussion about the value of serum albumin as a nutritional marker. In fact, as a negative acute-phase protein, albumin is merely a disease marker [3, 4], and hence cannot be used as a nutritional marker [5]. The same is true for prealbumin, although this might be slightly more reliable.

Refeeding syndrome (RFS), a syndrome which is still not sufficiently recognised and which might even have lethal consequences, is broadly discussed. Daily monitoring of electrolytes is recommended to allow the early detection of imminent RFS.

The authors underline the fact that recent sound publications, such as the NOURISH [6] and EFFORT [7] studies, have impressively shown that nutritional support not only improves clinical outcomes of patients, but also reduces severe complications and mortality! They also discuss how nutritional therapy must be combined with resistance training to enhance muscle health.

The paper focuses on medical inpatients, but the importance of malnutrition, its screening and assessment, and individualised therapy by professional dietitians should be routinely expanded to more areas of medicine, e.g. major surgery and geriatrics. Moreover, this approach to appropriately managing malnutrition must also be present in ambulatory care.

I am convinced that managing inpatients with malnutrition as described by the authors is essential in the hospital setting, and should therefore become standard practice. I also believe that nowadays a hospital should not be certified unless it has proof of a management system for malnutrition!

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