



Malnutrition in Hospitalized Children

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Opinion

The nutritional deterioration in hospitalized patients has been a subject of an extensive analysis, being associated to higher morbidity and mortality and, therefore, an increase in healthcare expenditure [1-4]. This eventuality has been widely debated at the highest administrative and political level, so making necessary the development of clinical guides and resolutions (from the Council of Europe) on feeding and nutritional care in hospitals [5-7].

The epidemiological studies of malnutrition in hospitalized children that have been carried out in occidental countries show a prevalence of malnutrition at the time of admission ranging 6.1 to 13.3% [8-15], making these patients more susceptible to present nutritional deterioration during the hospital stay [15-17]. However, this eventuality often goes undetected owing to the lack of specific strategies for nutritional screening [18].

Several nutrition screening tools have been designed to identify patients at risk of malnutrition, which have been validated and adapted to pediatric age. They basically consist of scoring systems that allow the identification of patients at risk of malnutrition (and, therefore, in need of a deeper clinical and nutritional evaluation), from clinical and anthropometric data. We should mention the *Pediatric Nutritional Risk Score* (NRS), as well as the *Screening Tool for Risk on Nutritional Status and Growth* (STRONGkids) and the *Screening Tool for the Assessment of Malnutrition in Pediatric* (STAMP), even though there is no clear consensus on the most appropriate nutrition screening tool to be applied in pediatric age [19-23].

The overall prevalence rate for malnutrition in pediatric patients at the moment of admission in our hospital are 8.2% [24], being this figure similar to those published in occidental countries [8-18] and, of course, much lower than those countries with worse socioeconomic conditions [17,25,26]. Nevertheless, it is important to highlight two variables that seem to play an important role in detecting patients at risk of malnutrition at admission: age and reason for admission. The 86% of the cases with malnutrition recorded in our hospital are infants and/or preschool children; and the diseases of the nervous and/or respiratory system account for almost half of the cases of malnutrition. Additionally, the congenital malformations, deformations and chromosomal abnormalities, even though with a low prevalence, involve a high risk of malnutrition.

The European Charter on the rights of children in hospital promulgated by the European Parliament and whose content was assumed and promoted by the UNICEF and the WHO, begins with the statement that “*children shall be admitted to hospital only if the care they require cannot be equally well provided at home on a day basis*”. The policy for pediatric hospital admission in our environment, pursuant to this resolution, is quite restrictive, intending that only those patients whose pathology requires exclusive hospital care be admitted. In fact the 82% of inpatients throughout the year 2013 went through a hospital stay no longer than 5 days and that 5% overtook a 10-day hospitalization, being extended stays exceptional.

As a conclusion, it should be mandatory to accomplish an initial screening and follow up during hospitalization of younger patients and those suffering from diseases of the nervous and/or respiratory system

and, especially, from congenital diseases, given the risk of presenting with malnutrition at the moment of admission and the potential deterioration during the hospital stay. Nevertheless, this strategy should be applied to every patient. This means, we should establish, on a routine basis, simple strategies to detect those patients at nutritional risk at the moment of admission, either by age or by the disease they suffer from, and also establish immediately all necessary measures of nutritional support in order to the prevention and, when applicable, resolution, of an adverse nutritional situation.

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