ABSTRACT

Enhancing patient care: Ethical considerations for micronutrient management in hospital nutrition settings

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Micronutrients are represented by vitamins and minerals and are present in a wide variety of foods. Each of these nutrients performs specific functions that are essential for the health of our cells and their harmonious functioning. Data suggest that many people have an inadequate daily intake of micronutrients, even when nutritious food is more easily available. It has since been established that the complex, integrated immune system needs multiple specific micronutrients, including vitamins A, D, C, E, B6, and B12, folate, zinc, iron, copper, and selenium, which play vital, often synergistic roles at every stage of the immune response. Adequate amounts are essential to ensure the proper function of physical barriers and immune cells; however, daily micronutrient intakes necessary to support immune function may be higher than current recommended dietary allowances. Even in Covid-19 patients, micronutrients are used as one of the recommendations for the therapy, both with mild symptoms to severe symptoms who require treatment in the ICU.

Critical micronutrients were identified with deficiencies being present in numerous acute and chronic diseases. The ESPEN Micronutrient Recommendations explained that the adequate amounts of all essential trace elements and vitamins shall be supplied to all patients receiving medical nutrition from the beginning of the period of nutritional support. In many clinical situations, for safety and practical reasons micronutrients can be provided orally or enterally to correct depletion or deficiency. The parenteral route, intravenous (IV) or intramuscular (IM), may be indicated where absorption is poor, or for rapid correction of a deficiency.

The ethical principles “autonomy, beneficence, non-maleficence and justice” are internationally recognized. They are interrelated and must be applied in the act of medical decision making, including the nutrition support (macro and micronutrient treatment). The crucial difference between nutritional support as a medical treatment and force feeding is the patient’s consent to treatment. If the patient is unable to give this, any treatment given must be in their best interests. Those involved in providing nutritional support should have a clear understanding of the ethical and legal principles that underpin such decisions and knowledge of the benefits and burdens of the proposed treatments. Decision making must consider knowledge of the underlying disease process and its prognosis, and the evidence relating the likely benefits and burdens of nutritional support in this situation. These issues must be fully discussed with the patient to enable them to make an informed decision.

Keywords: micronutrients, deficiencies, recommendations, ethical principles

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