



ABSTRACT

Nutrition support in critically ill COVID-19 patients

Nutri Virtual Symposium 2020

Nutrition Battling on Pandemic COVID-19: How to Survive

Link to DOI: [10.25220/WNJ.V04.S3.0006](https://doi.org/10.25220/WNJ.V04.S3.0006)

Journal Website: www.worldnutrijournal.org

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With the unprecedented pandemic of coronavirus disease (COVID-19) in early 2020, rapid changes in healthcare practices occurred, requiring an increased demand for nutrition support. Acute respiratory complications that require intensive care unit (ICU) management are a major cause of morbidity and mortality in COVID-19 patients. ICU stay, polymorbidity and older age are all commonly associated with high risk for malnutrition, representing a relevant risk factor for higher morbidity and mortality in chronic and acute disease. Also importantly, prolonged ICU stays are reported to be required for COVID-19 patients stabilization, and longer ICU stay may per se directly worsen or cause malnutrition, with severe loss of skeletal muscle mass and function which may lead to disability, poor quality of life and additional morbidity. Prevention, diagnosis and treatment of malnutrition should therefore be routinely included in the management of COVID-19 patients. Diagnosis and treatment of malnutrition should be considered in the management of COVID-19 patients to improve both short- and long-term prognosis. Patients at risk for poor outcomes and higher mortality following infection with COVID-19, namely older adults and polymorbid individuals, should be checked for malnutrition through screening and assessment. Subjects with malnutrition should try to optimize their nutritional status, ideally by diet counseling. Oral nutritional supplements (ONS) should be used whenever possible to meet patient's needs, when dietary counseling and food fortification are not sufficient to increase dietary intake and reach nutritional goals. Subjects with malnutrition should ensure sufficient supplementation with vitamins and minerals. In polymorbid medical inpatients and in older persons with reasonable prognosis, whose nutritional requirements cannot be met orally, enteral nutrition (EN) should be administered. Parenteral nutrition (PN) should be considered when EN is not indicated or unable to reach targets. In conclusion, nutrition intervention and therapy needs to be considered as an integral part of the approach to patients with COVID-19 infection in the ICU setting and general medical ward setting.

Keywords: COVID-19, malnutrition, ICU, enteral nutrition, parenteral nutrition

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