

Question submitted to RapidInfo4U

What is the evidence for nutrition interventions in COVID-19 respiratory clinics in an acute setting?

Is there any evidence for specific nutritional care pathways and or interventions in COVID-19 respiratory clinics?

Answer

Very limited information is available as to the inclusion of nutrition interventions in COVID-19 respiratory clinics in an acute setting. Nutritional interventions in COVID-19 outpatient respiratory clinics or settings receive limited attention in guidelines. Guidelines largely place emphasis on acute inpatient management and on movement from acute to community settings. No studies were found that evaluated nutritional interventions in COVID-19 respiratory clinics. Therefore, there is limited evidence to support nutritional interventions in COVID-19 respiratory clinics. Further research is needed.

Details of answer

Nutritional interventions and nutritional care pathways for people recovering from COVID-19 or long COVID were detailed in a recent Rapidinfo4U response (access [here](#)). Within this response, guidelines were outlined which provide recommendations for nutrition care pathways. However, limited evidence was found to support the interventions and pathways. Generally, the nutrition guidelines for COVID-19 patients are based on extrapolation from literature on the role of nutrition in the immune system and recovery from respiratory illness or ICU admission. Furthermore, limited attention was given to the role of nutritional interventions in respiratory clinics in the acute or outpatient setting.

[Guidelines related to nutrition and COVID-19 respiratory clinics](#)

A review was conducted of guidelines for nutrition management during or post COVID-19 infection in the community (1). Guidelines emphasised the process of screening for malnutrition, the development of nutrition care plans and facilitating continuity of nutritional care between settings, predominantly referring to movement between acute hospital settings and community settings (1). The authors found that one of the key messages related to community nutritional care pathways was that ‘Nutrition support should be integrated into care pathways and multi-disciplinary rehabilitation services’ (p.7). However, limited attention was given to respiratory clinics or outpatient follow-up clinics in an acute setting within this guideline.

A document from the Intensive Care Society (ICS) in the UK in August 2020 recommended that patients who have been in ICU should participate in follow-up clinics that include dietetics within a multidisciplinary team (access [here](#)) (2). Clinics were recommended in the early phase (0-1 months after ICU) and after discharge from the acute setting. It was also recommended that these clinics could be held virtually. From 3 months onward, comprehensive nutrition assessment by a dietitian was recommended along with nutrition specific recommendations aligned with rehabilitation plans. The patient may be re-evaluated for the need to be seen at the MDT follow-up clinic or if they can be referred onto community services.

[Broader literature on COVID-19 respiratory clinics](#)

The HSE produced a Summary of Evidence on virtual early supported discharge of patients following COVID-19 in October 2020 that refers to the use of outpatient follow-up clinics (access summary [here](#)). Nutritional interventions receive limited attention though the role of multi-disciplinary follow-up was identified. For example, Salawu and colleagues (3) describe a proposed method of multidisciplinary follow-up. The multidisciplinary tele-rehabilitation process encompasses elements of pulmonary rehabilitation and considers the need for nutrition advice in addition to other multidisciplinary inputs. Based on a screening tool

capturing the potential impacts of COVID-19, the authors also emphasise the importance of referral to specialist services where needed. While other studies have examined outpatient follow-up clinics for people recovering from COVID-19, they provide limited information on nutritional interventions within these clinics. A study provided data on the positive outcomes of a COVID-19 follow-up clinic for people discharged from ED. The follow-up clinic reduced unplanned ED re-attendance (4). However, the clinic was focused on managing acute disease and the authors did not detail nutritional components of the intervention. A recent review of the literature from May 2021 on the UpToDate site by Cohen & Blau outlines the rationale for outpatient management of acute COVID-19 and specific considerations for this process but again does not specifically identify evidence-based nutritional interventions (See review [here](#)) (5). The review highlights that there is limited high quality data that vitamin C, vitamin D or Zinc impact upon the severity of COVID-19 in patients who are not hospitalised.

Evidence related to nutritional interventions in COVID-19 respiratory clinics

A scoping review was conducted by Siddiq and colleagues on “Pulmonary Rehabilitation in COVID-19 patients” (6). This scoping review identified three papers that endorse the inclusion of nutrition components in pulmonary rehabilitation for COVID-19. However, these are based on reviews of other data and related literature rather than evidence of the effectiveness of the nutritional interventions within COVID-19 respiratory clinics. One of these papers identified nutrition as a necessary component of pulmonary rehabilitation for COVID-19 given the prevalence of malnutrition and nutrition related issues in people recovering from COVID-19 (7). The authors have suggested that outpatient pulmonary rehabilitation should be considered for all patients who have been hospitalised with COVID-19 (7).

Conclusion

Nutritional interventions in COVID-19 respiratory clinics or outpatient settings receive limited attention in guidelines. No studies were found that evaluated nutritional interventions in

COVID-19 respiratory clinics. Therefore, there is limited evidence to support nutritional interventions in COVID-19 respiratory clinics. Further research is needed.

Disclaimer

This document has not been peer-reviewed; it should not replace individual clinical judgement. The views expressed in this document are not a substitute for professional medical advice. The content of this document is correct as of 09/06/21

Rapid Evidence Search & Summary (RESS)

Our team of multidisciplinary researchers and clinicians in conjunction with the University of Limerick Library and Information Services have developed a detailed protocol for conducting a Rapid Evidence Search & Summary (RESS) to answer questions submitted to RapidInfo4U. Our RESS protocol uses PICO or PEO methods to refine your question and follows a detailed search procedure capturing guidance documents from governments, institutions and professional bodies; searching clinical and COVID specific repositories; and identifying the most recent reviews and RCTs in the scientific literature using established databases.

References

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5. Cohen P, Blau J. COVID-19: Outpatient evaluation and management of acute illness in adults 2021 [Available from: <https://www.uptodate.com/contents/covid-19-outpatient-evaluation-and-management-of-acute-illness-in-adults>].
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