

What Role Should the Registered Dietitian Have in the Diagnosis and Treatment of Low Vitamin D in Pediatric Patients with Crohn's Disease?

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Background

Vitamin D deficiency is common in pediatric Crohn's disease patients.¹ This can lead to immune system dysfunction and problems with bone growth.² Registered dietitians are an essential part of the healthcare team and should have standard guidelines available to assist with the assessment and treatment of these patients.



Aim of the Study

The aim of this study is to develop guidelines for registered dietitians in the assessment and treatment of low vitamin D in pediatric Crohn's disease patients based on current available evidence-based medicine. By providing registered dietitians with set guidelines, medical nutrition therapy will be performed uniformly by all practitioners, leading to continuity of care and improved outcomes for patients.

Methods

Multiple databases (Pubmed, CINAHL, Embase, Scopus, Taylor and Francis, UpToDate) were searched using keywords: pediatric, nutrition, dietitian, deficiency, Crohn's disease, inflammatory bowel disease, IBD, vitamin D, cholecalciferol, recommendation, and guidelines. Inclusion criteria: Published 2014 or later, published in English, and contained pediatric data. Case studies were excluded.

Goals of nutritional treatment of low vitamin D:

Increase dietary vitamin D, when possible

Provide nutrition education on the dietary sources of vitamin D

Supplement vitamin D when necessary

Provide recommendation to the physician for ordering supplemental vitamin D using Crohn's and Colitis Foundation guidelines

Monitor serum vitamin D levels regularly

Request vitamin D3 levels to be checked every 6-12 months

Tools for use by RDs in the assessment and treatment of low vitamin D in Crohn's disease

Nutrition-focused physical exam
Normal lab value parameters
24-hr dietary recall
Food frequency questionnaire
Vitamin D food sources handout
Nutrition Care Manual

Example PES Statements:

Low serum vitamin D3 levels related to poor dietary intake of high vitamin D food sources and limited UV light exposure per pt dietary recall and hx is evidenced by 25(OH)D3 level of ____.

Low serum vitamin D3 levels related to possible gastrointestinal losses with excessive diarrhea as evidenced by pt report of 5 stools/day and 25(OH)D3 level of ____

Summary Chart of Recommendations

Recommendation	Sources
Patients with Crohn's disease should consult with a registered dietitian to avoid and/or treat malnutrition and low vitamin D	<ul style="list-style-type: none"> • ESPEN • Asian Working Group • UpToDate
Vitamin D serum levels should be monitored regularly in Crohn's disease patients using steroids	<ul style="list-style-type: none"> • ESPEN • Expert Reviews
Low vitamin D should be repleted and monitored in patients with Crohn's disease	<ul style="list-style-type: none"> • ESPEN • UpToDate • Expert Reviews

Results

Overall agreement that registered dietitians are a necessary member of the healthcare team in this population was found.³ Also, vitamin D is a micronutrient of concern, particularly in patients on steroid therapy and should be monitored and repleted when low.

Conclusions

Specific supplementation guidelines for low vitamin D in Crohn's disease were not consistent, but it was widely noted as a necessary micronutrient to be monitored. The importance of nutritional care from a registered dietitian was evident in all studies.

References

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