



TITLE: Prebiotic and Probiotic Supplements for Patients with Celiac Disease: Clinical Effectiveness

DATE: 12 July 2010

RESEARCH QUESTION:

What is the clinical effectiveness of prebiotic and probiotic nutritional supplements for the management of celiac disease?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 6, 2010), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI (Health Devices Gold), EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between January 1, 2005 and June 28, 2010. No filters were applied to limit the retrieval by study type. Internet links were provided, where available.

RESULTS:

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and non-randomized studies.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness of prebiotic and probiotic nutritional supplements for the management of celiac disease. Additional articles of potential interest can be found in the appendix.

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Health technology assessments

No literature identified.

Systematic reviews and meta-analyses

No literature identified.

Randomized controlled trials

No literature identified.

Non-randomized studies

No literature identified.

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APPENDIX – FURTHER INFORMATION:

Laboratory studies

1. De Palma G, Cinova J, Stepankova R, Tuckova L, Sanz Y. Pivotal Advance: Bifidobacteria and Gram-negative bacteria differentially influence immune responses in the proinflammatory milieu of celiac disease. *J Leukoc Biol.* 2010 May;87(5):765-78.
[PubMed: PM20007908](#)
2. Lindfors K, Blomqvist T, Juuti-Uusitalo K, Stenman S, Venalainen J, Maki M, et al. Live probiotic Bifidobacterium lactis bacteria inhibit the toxic effects induced by wheat gliadin in epithelial cell culture. *Clin Exp Immunol [Internet].* 2008 Jun [cited 2010 Jun 28];152(3):552-8. [PubMed: PM18422736](#) Available from:
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453197>
3. Sanz Y, Sanchez E, Marzotto M, Calabuig M, Torriani S, Dellaglio F. Differences in faecal bacterial communities in coeliac and healthy children as detected by PCR and denaturing gradient gel electrophoresis. *FEMS Immunol Med Microbiol.* 2007 Dec;51(3):562-8.
[PubMed: PM17919298](#)

Additional references

4. Mennigen R, Bruewer M. Effect of probiotics on intestinal barrier function. *Ann N Y Acad Sci.* 2009 May;1165:183-9. [PubMed: PM19538305](#)