

## Reviewer's report

**Title:** Auxological screening rules to detect Celiac disease: a case-control simulation study

**Version:** 1 **Date:** 12 November 2007

**Reviewer:** andrew S day

### Reviewer's report:

#### General

The manuscript by van Dommelen and colleagues examines the role of disturbed growth patterns in the recognition of Coeliac disease (CD) in children.

#### General comment:

There is an increasing realisation that children diagnosed with CD can present with a wide spectrum of features. Many case series from various countries in recent years have taught us that the so-called "classical" presentation of CD in the second year of life (with failure to thrive, diarrhoea, abdominal distension and other symptoms) is now seen much less commonly. Children can now present a variety of symptoms, or even no symptoms at all. Often times this includes no or little disturbance of weight or height/length patterns.

This study, incorporating several separate patient cohorts, aims to retrospectively model the predictive value of equations relating to disturbances of normal growth patterns. The value of disturbed growth may now be less than previously, given the now well-recognized variation in growth disturbance. Furthermore, a prospectively designed study with larger numbers may assist further in defining the importance of such predictive equations.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

#### Specific Comments:

1. The last paragraph of the Introduction suggests that it is "common knowledge" that height is disturbed in children diagnosed with CD. This statement is not referenced, and may no longer be valid.
2. The Methods section provides details of the screening rules. It also refers to some rules that were not helpful, but does not provide details here (only in the Discussion). The details of these rules, whether subsequently helpful or not, should be provided in the Methods section. The utility of these rules can then be presented in the Results, and any relevant interpretation given in the Discussion.
3. The prior-probability of CD is given as 0.86% on page 7. Is this value correct?

4. The conclusions of the study echo other recent reports.
5. The study included several small cohorts of children, totalling 122 (after exclusions). This appears to be a relatively small number: can this number be justified?
6. Furthermore, data from these patient cohorts were collected over a long period of time (dating from 1994). The presentation patterns of CD over this time period will likely have changed in the Netherlands (as in other countries), making the conclusions less relevant for the current day situation.
7. The Legend for Table 1 needs to be more comprehensive: there are very difficult and confusing concepts to interpret in this Table.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)  
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Discretionary Revisions (which the author can choose to ignore)

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests