

Reviewer's report

Title: Trichotillometry: the reliability and practicality of hair pluckability as a method of nutritional assessment.

Version: 1 **Date:** 25 August 2006

Reviewer: Sue Green

Reviewer's report:

General

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

This is a very interesting article and has relevance to nutritional practice. However, the scientific background informing the article need to be strengthened and reported in relation to the study aims i.e. reliability testing and the effect of patient characteristics on the measure.

The concept of screening for malnutrition as opposed to assessment of nutritional status needs to be considered. In most clinical situations it is necessary to carry out a screening process to identify those who may be malnourished. Nutritional assessment can then occur to identify the extent and type of malnourishment.

In the abstract the authors suggest that hair pluckability "could be a useful method of nutritional assessment in complex humanitarian emergencies". However, the results do not support this statement.

The background suggests that there is not a method that can be used to assess for nutritional status in complex emergencies, however, mid-upper arm circumference and weight can be (and are) used. Key literature is not considered in the introduction e.g. Collins et al 2000. Hair pluckability in relation to marasmus and kwashiorkor are also not considered.

It is more likely that hair pluckability could be used as part of the process of the assessment of nutritional status during clinical examination and the data is interesting when related to this. Although many patients may object to having 10 hairs pulled out and the acceptability of the measure needs to be considered.

The number of participants in the study seems small. The authors state a sample size calculation was performed but do not identify the result i.e. what was the required sample size to detect a difference with respect to the inter-rater and intra-rater reliability testing? and what was the required sample size when testing the effect of patient characteristics on the measure?

The paper is well written and the figures and tables show the results clearly.

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

Page 3: Blood can be classified as a tissue - structural protein may be a better term to use. The term "crash dieting" needs to be explained.

Page 6: The use of percentages with such small numbers is questionable.

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 whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.