Evaluation of NutriProfiel®: an online tool for personalized dietary advice considering micronutrient status in a clinical setting

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Background

A significant proportion of the Dutch population does not meet the Dutch dietary guidelines. This may be explained by a lack of knowledge, or perceived barriers when trying to adhere to the recommendations. Also, healthcare professionals lack solid nutrition education, hampering optimal care and prevention in diet-related disorders. This is particularly the case for micronutrient deficiencies, caused by either pathophysiological processes or poor dietary habits, requiring different follow-up of dietary intake.

Development NutriProfiel

The Eetscore assesses to what extent daily intake adheres to the Dutch Food Based Dietary Guidelines of 2015. It consists of a short Food Frequency Questionnaire and is scored with the Dutch Healthy Diet 2015-index.

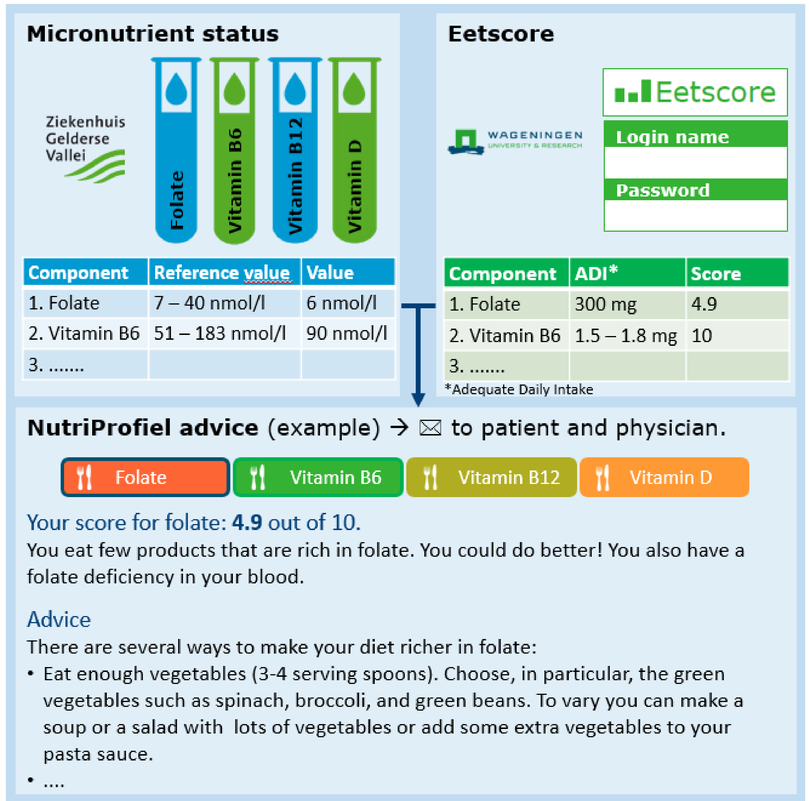
NutriProfiel combines micronutrient blood concentrations of vitamin B6, folate, B12 and/or D with dietary intake assessed by the Eetscore. These combined results generate a personalized dietary advice to improve or maintain micronutrient status

Objective

To evaluate the use of NutriProfiel in eHealth to support patients and healthcare professionals for improvement of patients' micronutrient status.

Methods

The use of NutriProfiel was evaluated with seven healthcare professional users and 194 potential users by in-depth interviews and questionnaires, respectively. NutriProfiel was evaluated on understandability, usability and practicality.



Results

Healthcare professionals reported NutriProfiel as a useful tool to gain insight in patients' micronutrient status. They believe NutriProfiel fills the information gap of evidence-based dietary advice which has not yet been implemented in current protocols.

Healthcare professionals suggested to expand NutriProfiel with more micronutrients to generate a more complete overview of patients' micronutrient status and an increased use of NutriProfiel.

NutriProfiel was indicated as trustworthy by 80% of potential users. Furthermore, they reported NutriProfiel as understandable (84%), professional (68%) and easy (60%).

Conclusions and perspectives

NutriProfiel received positive evaluations by healthcare professionals and potential users, and is currently available for all incoming blood tests at the clinical chemistry laboratory of Gelderse Vallei Hospital. Future perspectives include expanding the list of nutrient biomarkers for which a personalized dietary advice can be provided.

More information

www.nutriprofiel.nl

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