

## Board of examiners

**Prof. Dr. Elisabeth De Waele**

Department of Intensive Care Unit  
UZ Brussels

**Prof. Dr. Geneviève Veereman**

Department of Pediatric Gastro-enterology  
UZ Brussels

**Prof. Dr. Marc Noppen**

Chief Executive Officer UZ Brussel  
UZ Brussels

**Prof. Dr. Koen Joosten**

Department of Pediatric Intensive Care  
ErasmusMC-Sophia Children's Hospital, Rotterdam

**Prof. Dr. Ilse Hoffman**

Department of Pediatric Gastro-enterology  
Leuven Catholic University, Leuven, Belgium

**Prof. Dr. Stephanie Van Biervliet**

Department of Pediatric Gastro-enterology  
University Hospital Gent, Belgium

**Prof. Dr. Michel Deneyer, Chair**

Department of Pediatrics  
UZ Brussels

**Promotors :****Prof. Dr. Jean De Schepper**

Department of Pediatric Endocrinology  
UZ Brussels

**Prof. Dr. Yvan Vandenplas**

Department of Pediatric Gastro-enterology  
UZ Brussels

PhD in Medical Sciences  
2015-2016

INVITATION to the Public defence of

**Koen HUYSENTRUYT**

To obtain the academic degree of '**DOCTOR IN MEDICAL SCIENCES**'

**Disease-related under-nutrition in hospitalized children in Belgium**

**Monday 30 May 2016**

Auditorium **Brouwer**, 17:00

Faculty of Medicine and Pharmacy, Laarbeeklaan 103, 1090 Brussel

How to reach the campus Jette:

<http://www.vub.ac.be/english/infoabout/campuses>



Vrije Universiteit Brussel

## Summary of the dissertation

The overall aim of this thesis was to study the current status of undernutrition in hospitalized children in Belgium and to present a plan for the early detection of undernourished children during hospitalization. We started our work by describing that 12% of a sample of 379 children in four different Belgian hospitals were considered undernourished according to at least one anthropometric parameter. Only one-third of the children with a weight for height  $< -2$  SD at admission received a nutritional intervention. We retrospectively studied the nutritional evolution and management of 56 previously healthy children hospitalized for pneumonia with parapneumonic effusion. One-third lost  $\geq 5\%$  of their body weight during hospitalization.

We validated the STRONG<sub>kids</sub> as a rapid and easy tool that can also be used by nurses in everyday practice. Children classified as low risk by the STRONG<sub>kids</sub> had a 5% probability of having a WFH  $< -2$  SD at admission, with only 1% probability of a nutritional intervention during hospitalization. We compared the STRONG<sub>kids</sub> with other pediatric screening tools in a systematic review, but failed to find compelling evidence to recommend one screening method over another.

Using a nationwide survey, we showed that systematic nutritional screening had not been widely adopted in Belgium secondary care level hospitals. A standard protocol or action plan for the management of undernutrition was present in only a small minority of the centres. We therefore proposed pediatric guidelines for the implementation of nutritional screening in everyday hospital practice.

## Curriculum Vitae

Koen Huysentruyt was born on the 29<sup>th</sup> of March 1985 in Genk as a third of four sons to Anne van Laethem and Patrick Huysentruyt. He achieved his Bachelor degree in Medicine in 2006 at the University of Hasselt and his Master's Degree in Medicine at the Catholic University of Leuven in June 2009. He started his pediatric residency at the Brussels Free University in 2009 and gained his first experience in the field of general pediatrics in the hospital of Genk (Ziekenhuis Oost-Limburg) that year. In 2011, he started his Ph.D. under the supervision of Prof. De Schepper and Prof. Vandenplas from the Department of pediatrics of the Brussels Free University Hospital, where he continued his pediatric residency. In the last year of his residency, in 2015, he started a fellowship in pediatric gastroenterology which is partially funded by a grant received from the Belgian Society for Pediatric Gastro-Enterology, Hepatology and Nutrition (BeSPGHAN).

He has been active in the field of clinical nutritional research in pediatrics, which is reflected by the many poster and oral presentations that he presented in national and international conferences. He has currently co-authored twelve publications, of which nine as a first author. He is a committee member of the *Vlaamse Vereniging voor Kindergeneeskunde Jongeren (VVK jongeren)* since 2013 and of the *Vlaamse Vereniging voor Klinische Voeding en Metabolisme (VVKVM)* since 2015.

He has been socially active as a volunteer in the Lentekind Vakantiewerking for a period of nine years. He married Evy Neyens in 2015.