

# PROGRAM ASSESSMENT MASTER OF SCIENCE IN DEGLUTOLOGY

Ravensteingalerij 27 1000 Brussel T +32 (0)2 792 55 00 F +32(0)2 211 41 99

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#### PREFACE VLUHR OA BOARD

This reports gives the judgements and recommendations of an independent panel of experts regarding the quality of the Advanced Master of Science in Deglutology of KU Leuven. The program was assessed in December 2019 on behalf of the Flemish Higher Education Council (VLUHR).

First of all, this report is intended for all stakeholders of the program and provides a snapshot of the quality of the program. As chair of the VLUHR QA Board I hope that the panel's judgements and recommendations will advance the quality of this highly unique and relevant program. Additionally, this report provides information regarding the quality of the program to a wider audience. For this reason, this report is also published on the VLIHR website

I would like to thank all members of the panel for the time they have invested and the dedication they showed carrying out the assessment. At the same time, this assessment has only been possible through the commitment of all those involved in the program. I hope the formulated judgements and recommendations do justice to their efforts.

**Petter Aaslestad** Chair VLUHR QA Board

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# **SECTION 1**General Section

# **PART I** Deglutology

#### 1 INTRODUCTION

In this report, the panel Deglutology presents its judgements and recommendations regarding the quality of the Advanced Master of Science in Deglutology of KU Leuven. The program was visited in December 2019 on behalf of the Flemish Higher Education Council (VLUHR). This assessment is part of the VLUHR activities in order to ensure that the higher education institutions are in compliance with the current regulations imposed by the Flemish government.

#### 2 THE ASSESSED PROGRAM

In accordance with its mission, the panel visited

#### KU Leuven

- Advanced Master of Science in Deglutology, December 2 and 3, 2019.

#### **3 THE PANEL**

#### 3.1 Composition of the panel

The composition of the panel Deglutology was ratified on 19 April 2019, 20 May 2019 and 12 June 2019 by the VLUHR Quality Assurance Board. The NVAO sanctioned the panel composition on 5 August 2019. The assessment panel was subsequently installed by the VLUHR Quality Assurance Board by its decision of 10 September 2019.

The panel was composed as follows:

- Chair of the panel:
  - Joke Denekens, former vice rector and emerita professor general practice/family medicine, University of Antwerp
- Panel members:
  - Laura Baijens, associate professor head & neck surgery, Maastricht University
  - Marc Benninga, professor of pediatrics at the Emma Children's Hospital, Amsterdam.
  - Serhat Yildirim, medical student at Ghent University

Dieter Cortvriendt, Policy Advisor of the Quality Assurance Unit of VLUHR, was project manager of this educational assessment and acted as secretary to the assessment panel.

A short biography of the panel members is listed in Appendix 1.

#### 3.2 Assignment of the panel

The panel is expected:

- to make substantiated judgements using the assessment protocol and accreditation framework;
- to make recommendations for improvement;
- and to inform society at large about the quality of the program.

#### 3.3 Assessment process

#### 3.3.1 Preparation

The program was asked to compile a self-evaluation report in preparation for the assessment. For this purpose, an assessment protocol, with details regarding the expectations of the self-evaluation report, was made available by the Quality Assurance Unit of VLUHR. The self-evaluation report must reflect the accreditation framework.

The panel received the self-evaluation report a number of months before the site visit, which allowed the panel to prepare the assessment thoroughly. Additionally, the panel was asked to read a broad selection of Master's theses

The panel held a preparatory meeting on 7 November 2019. At that moment, the panel was already in possession of the assessment protocol and accreditation framework, as well as the self-evaluation report of the program. During this meeting, the panel members were further informed about the assessment process. Special attention was given to using the accreditation framework and assessment protocol in a uniform and coherent way. Also, a schedule for the site visit was agreed upon (see Appendix 2). Finally, the self-evaluation report was discussed in depth and a tentative list of points of attention to assess the quality of the program compiled.

#### 3.3.2 Site visit

During the site visit the panel interviewed the different stakeholders of the program. The panel held meetings wit the program management, students, teaching and supporting staff and the professional field. The meetings took place in an open and constructive atmosphere and provided the panel, in addition to the self-evaluation report, relevant insights regarding the quality of the program.

The panel visited the facilities, including the library, classrooms and the skills lab. There was also a consultation hour during which the panel could invite additional stakeholders or during which people could meet the panel in confidence.

Furthermore, the program was asked to provide a wide variety of documents during the site visit for the panel to study as a additional source of

information. These documents included for example the minutes of relevant program management bodies, a selection of study materials. The panel had sufficient time to study these documents thoroughly.

Following the panel's discussions, provisional findings were presented to the program stakeholders by the chair of the panel at the end of the site visit.

#### 3.3.3 Reporting

The last stage of the assessment process was the compilation of the panel's judgements and recommendations into this report. The recommendations are summarised at the end of the report.

The program management was given the opportunity to reply to a concept version of this report. The panel adapted the report on the input provided by the program management.

### **PART II** Table with scores

The table below represents the scores of the panel on the three generic quality standards (GQS) set out in the assessment protocol.

For each GQS the panel expresses a substantiated judgement, according to a two-point scale: satisfactory or unsatisfactory. The panel also expresses a final judgement regarding the quality of the program as a whole, also on a two-point scale: satisfactory or unsatisfactory.

In the report the panel makes clear how it came to these scores. Any interpretation solely based on the scores below does injustice to the program's and panel's efforts.

Explanation of the scores of the **generic quality standard**:

Satisfactory (S) the program meets the generic quality standard

Unsatisfactory (U) the program does meet the generic quality

standard

Rules applicable to the final **judgement**:

Satisfactory (S) if all generic quality standards are assessed

as satisfactory.

if all generic quality standards are assessed Unsatisfactory (U)

as unsatisfactory.

Satisfactory for if, for a first assessment, one or two generic

a limited period quality standards are assessed as unsatisfactory.

(S')

	GQS 1 Targeted outcome level	GQS 2 learning environment	GQS 3 Achieved outcome level	FINAL JUDGEMENT
Master of Science in Deglutology KU Leuven	S	S	S	S



# **SECTION 2**

Assessment report

### **KU LEUVEN** Advanced Master of Science in Deglutology

#### **SUMMARY Advanced Master of Science in Deglutology KU** Leuven

On 2 and 3 December 2019 the Advanced Master of Science in Deglutology of KU Leuven was assessed by a panel of independent experts in accordance with the VLUHR assessment framework and NVAO accreditation requirements. The summary below gives the main judgements of the panel.

#### **Profile**

The Master of Science in Deglutology is a specialized and unique program focusing on the diagnostic and therapeutic care of patients with swallowing disorders. The program is organized by the Faculty of Medicine.

The panel states that the learning outcomes of the program are defined at the appropriate level and in accordance with the requirements of the professional and the academic field. The program has a strong academic (research) component as well as a strong professional (clinical) component.

The program, the panel believes, is highly relevant for society given the increasing prevalence of dysphagia. The very same time, the panel witnessed that this Advanced Master is still not well-known and recommends to set up professional communication in order to make the program more visible and attractive.

#### **Program**

The Master of Science in Deglutology is a one-year program (60 ECTS). All courses are mandatory and grouped in seven clusters: research (21 ECTS; including the Master's thesis), management and communication (3 ECTS), anatomy, physiology and pathophysiology of deglutition (16 ECTS), diagnostics of deglutition (9 ECTS), treatment of deglutition (3 ECTS), internship (4 ECTS) and research topics (4 ECTS).

The panel believes that the **content** of the program is very relevant and the structure of the program shows high levels of consistency. There is no unnecessary overlap. Regarding the format of the program, there is an adequate mix of teaching and learning methods and a good equilibrium of theoretical and practical components. The learning materials are in line with the content, structure and format of the program. The facilities, like the skills lab, are well attuned to realize the goals of the program.

An important aspect of the program is the **clinical internship** which aims to integrate various CanMEDS roles. The students are quite pleased with the internship, but would like to have a more hands on role.

In general, the panel states that the learning environment is well designed, but suggests to develop the program in a more didactical way; this for example on a weekly basis: starting with a case, subsequently providing the theoretical background, followed by training clinical and/or research skills and finally providing extensive feedback.

#### Staff and Support

The panel witnessed that the teaching staff is very approachable and of a very high academic level. The students are very satisfied with the core lecturers. In addition, renowned guest lecturers are invited to address specific Deglutology-related topics.

Notwithstanding the commitments of all teaching staff, the panel believes that the program is quite vulnerable; given the small number of core lecturers. The panel strongly advices to expand the core teaching staff.

The panel appreciates the support the students receive during their learning process. International students get much help from the international office of the KU Leuven.

#### Assessments

The program has clear policies regarding the assessments. Both summative and formative assessments are in place, steering the learning process as well as making sure that all learning outcomes are achieved by the students

The panel observed clear links between the goals, the content, structure and format of the program and the methods and criteria of the assessments. The assessments are transparent, valid and reliable.

#### Results

The master theses the panel studied show high levels of quality. The master's thesis is a **scientific paper** ready for submission to an international peer reviewed medical journal. The supervision is set up very well, making sure that all students are able to participate in challenging scientific research. Additionally, the internship guarantees that the students achieve the necessary clinical skills. The portfolio, however, should entail more frequent and more detailed feedback regarding the tasks students carry out.

The graduates made clear that they are very enthusiastic about the program and noticed that the program is of added value for their career opportunities. The lion share of the graduates is currently working as a deglutologist in various settings, also abroad. The very same time, the graduates noted that the professional field is not always well aware of the profile of a Master level deglutologist. Reaching out to policy makers at different levels to formalize the profession of deglutologist should be a priority for the program management.

#### **ASSESSMENT REPORT Advanced Master of Science in Deglutology** KU Leuven

#### **Preface**

This report addresses the assessment of the Advanced Master of Science in Deglutology of KU Leuven. The panel visited the program 2 and 3 December 2019

The panel assessed the program on the basis of the generic quality standards (GQS) of the VLUHR assessment framework. This framework is in tune with the NVAO accreditation requirements. For each generic quality standard the panel gives a motivated judgement on a two-point scale: 'unsatisfactory' or 'satisfactory'. Satisfactory points out that the program meets the generic quality of a particular standard. Unsatisfactory indicates that the program does not attain the generic quality of a particular standard. The concept of 'generic quality' means that the program meets the level of quality that is reasonably expected from an international perspective of a Master program. The panel makes clear how it has reached its judgements per standard. The panel also expresses a final judgement on the quality of the program as a whole, also according to the same two-point scale.

The panel assessed the quality of the program at the time of the **site visit**. The panel has based its judgements on the self-evaluation report, the information that arose from the interviews with the program management, students, lecturers, the professional field and supporting staff, and the examined learning materials, master theses and internship portfolios. The panel also visited the facilities during the site visit.

In addition to the judgements, the panel also formulates **recommendations** for quality improvement. At the end of the report there is an overview of the recommendations for improvement.

#### Context

The Advanced Master of Science in Deglutology is a specialized and unique program focusing on the diagnostic and therapeutic care of patients with swallowing disorders. In September 2017 the KU Leuven started with this one-year (60 ECTS) program.

The program is organized by the **Faculty of Medicine**, which belongs to the Biomedical Sciences Group of the KU Leuven. The program is organized in close cooperation with the University Hospitals and is supported by the department Neurosciences, the Research Group Experimental Otorhinolaryngology and the Translational Research Centre for Gastrointestinal Disease.

The **Program Committee** is responsible for coordinating the program and to ensure the quality of the program. The preparation of the SER (Self Evaluation Report) was in hands of a subcommittee of the Program Committee, this in close dialogue with students, assistants, graduates and lecturers

#### Standard one: Targeted outcome level

#### The panel assesses Standard 1 as satisfactory.

The program focuses on scientific evidence based training in the field of swallowing and its disorders and in the clinical diagnostic techniques and therapeutic strategies in order to take care for dysphagia patients. The program aims to provide society with clinicians and researchers using their high-level experience and competence to tackle swallowing problems. The panel applauds that the program has both a strong academic (research) component and a strong professional (clinical) component.

The **prevalence of dysphagia** over the last ten years has been striking, and will continue to grow the coming decennia in an aging population. According to the panel, offering an Advanced Master of Science in Deglutology meets urgent needs and helps to tackle the impact of swallowing disorders for society at large. As such, the panel wants to stress, that this program is highly relevant.

The Domain Specific Learning Outcomes are validated by the NVAO and the Program Specific Learning Outcomes target advanced theoretical and methodological knowledge, skills (as, researcher, clinician, health care improver, communicator, manager, and collaborator) and accompanying attitudes. The panel believes that both sets of learning outcomes are well formulated and that most stakeholders are well informed about them. The panel stresses that the Learning Outcomes are at the appropriate level and rather ambitious. In order to improve the program, the panel recommends that the learning outcomes should also focus on the role of team leader (leadership training), given many of the graduates will operate in complex interdisciplinary settings.

Since the start of the program, several initiatives have been set up to **provide** information regarding the Advanced Master of Science in Deglutology and the benefits of this program to hospitals, health professionals and researchers, as the need for this program is still underestimated. The panel appreciates these initiatives but recommends the program management to set up professional communication, this in order to make the program more visible and attractive, both in Belgium as abroad - given that the professional field may not always have a clear view on what could be expected from a Deglutology graduate at a master level.

The program targets Masters in Medicine or students that have obtained a health-related Master's degree in Physiotherapy, Speech Pathology, Dentistry or Occupational Therapy. The program was set op to attract both Belgian and foreign students. The panel observed that the entrance criteria are clear and most entrants - with different educational backgrounds have a clear view on the program's goals.

The panel observed that attracting foreign students is not always easy and advices the Faculty of Medicine – if budgets allow – to provide additional funds to target high-level students from abroad. The panel also asks the Faculty to develop a long term engagement for the program; this in order to tackle both internal and external restraints. Additionally, the panel suggests, that the program management must develop a business plan, including scenarios for different numbers of enrolling students, with strategic goals for education, research and internationalization and the accompanying allocation of means, to make the program really sustainable

The panel concludes that the goals of the program are ambitious, that the learning outcomes are clearly formulated and in accordance with the requirements of both the professional and the academic field regarding an Advanced Master program. The panel believes that this program is highly relevant for society, given the growing numbers of patients with swallowing disorders. The panel recommends that the program and Faculty intensify the initiatives to make sure that this program is better known and to attract more foreign students.

#### Standard 2: Learning environment

#### The panel assesses Standard 2 as satisfactory.

The Advanced Master of Science in Deglutology is a one-year program (60 ECTS). All courses are mandatory and grouped in seven clusters: research (21 ECTS; including the Master's thesis), management and communication (3 ECTS), anatomy, physiology and pathophysiology of deglutition (16 ECTS), diagnostics of deglutition (9 ECTS), treatment of deglutition (3 ECTS), internship (4 ECTS) and research topics (4 ECTS).

The panel detected that the content of the program is very relevant and that there is a high level of consistency among the different courses. There is no unnecessary overlap. The program has carried out a curriculum mapping, relating the different courses to the learning outcomes and the CanMEDs roles. This shows that all goals of the program are thoroughly addressed and that the different roles are well covered by the curriculum. The panel understood that the program is developing a more detailed curriculum mapping that will function as an operational instrument to have a better overview of the alignment of the learning outcomes, the content of the program and the assessments up to the level of each individual course

The panel observed that the study load is tough, but doable. The program management is well aware that some weeks are tougher than others, but in general, the study load is rather well balanced. The students interviewed by the panel were very motivated and pleased with the structure of the program. However, some of the students indicated to struggle with getting a good overview of the program from the very start. The panel advices to inform the students better about the structure of the program.

Regarding the format of the program, the panel believes there is an adequate mix of teaching and learning methods. There is a good equilibrium of theoretical and practical components throughout the program. The format of the program embodies the concept of 'disciplinary future self', based on two leading principles: a broad view on education starting from roles and professional identity formation. The program realizes these principles by providing the students challenging and authentic tasks that mimic real life settings. This stimulates students to be interactive, creative, cooperative and reflective during their learning process. The panel appreciates this approach and believes that the format of the program is well suited to transfer the content of the program.

The **learning materials** are in line with the content, structure and format of the program. The Digital Learning Environment offers the necessary functionalities to support the learning process of the students. The facilities, like the skills lab, are well attuned to realize the goals of the program.

An important aspect of the program is the **clinical internship**, which aims to integrate various CanMEDS roles. Students have to do an internship of three weeks in an **interdisciplinary university hospital setting**. Students keep track of their work by means of a portfolio. The students told the panel that they are quite pleased with the internship, but that they would like to have a more hands on role and that they would like to receive more frequent feedback on their clinical practice training in the portfolio.

The panel witnessed that the **teaching staff** is very approachable and of a very high academic level. The students are very satisfied with the core lecturers. In addition, renowned guest lecturers are invited to address specific Deglutology-related topics. Notwithstanding the commitments of all teaching staff, the panel believes that the program is quite **vulnerable**; given the small number of core lecturers. The panel strongly advices to expand the core teaching staff, this to proper manage the huge amount of work regarding the master thesis supervision as student numbers would grow.

The panel appreciates the **support at program level** the students receive during their learning process. International students get much help from the international office of the KU Leuven. The panel wants to stress that some of the foreign students are not used to express discontentment and that it is OK for them to approach staff members. To make this clear from the start of the year would help them throughout their training. At the level of the program, the support seems very intensive and the panel recommends increasing the support capacity.

The panel concludes that the program content, structure and format are well designed. The lecturers are of very high academic level, and the facilities and support adequately organized. The panel suggests however to develop the program in a more didactical way; this for example on a weekly basis: starting with a case, subsequently providing the theoretical background, followed by training clinical and/or research skills and finally providing extensive feedback. This would help students to get a better overview of the program, and by integrating the theoretical and practical components help them to realize the goals of the program in a

more effective and efficient way. To sum up, the panel states that the learning environment allows the students' to realize the goals of the program.

#### Standard 3: Achieved outcome level

#### The panel assesses Standard 3 as satisfactory.

The Faculty of Medicine and the program have clear policies at work regarding the assessments. The students are well informed about what is expected from them during the various assessment moments. Both summative and formative assessments are in place, steering the learning process as well as making sure that all learning outcomes are achieved by the students

The panel observed that there is a clear link between the goals, the content, structure and format of the program and the methods and criteria of the assessments. The assessments are transparent, valid and reliable, according to the panel. One point of attention should be the design of the multiple choice exams, which shows some anomalies. The students and graduates clearly stated that these exams not always enable them to show excellence. The panel asks the teaching staff to professionalize themselves regarding the design of these exams. The panel recommends the program management to install an exam committee that is responsible for a halfyearly quality check of the assessment methods, in terms of contents, methods and criteria.

The master theses the panel studied show high levels of quality. The master's thesis is a **scientific paper** ready for submission to an international peer reviewed medical journal. The supervision is set up very well, making sure that all students are able to participate in challenging scientific research. A jury, including two external members, is responsible for the assessment of the master's thesis. The panel was impressed by the quality of many of these scientific papers and they unambiguously illustrate that the ambitions of the program are met. Additionally, the **internship** guarantees that the students achieve the necessary clinical skills. The portfolio, however, should entail more frequent and more detailed feedback regarding the tasks students carry out in clinical practice, so that they can better monitor their own progress. The panel recommends to provide training in feedback in the context of professionalization of the teacher obligatory for all the mentors and to make sure that there is a standardized protocol to grade the portfolio work.

The graduates made clear that they are very enthusiastic about the program and noticed that the program is of added value for their career opportunities. The lion share of the graduates is currently working as a deglutologist in various settings, also abroad. The very same time, the graduates noted that the professional field is not always well aware of the profile of a Master level deglutologist. The panel also wants to pinpoint that a Deglutology program of this level is under stress from other 'Master' programs abroad, sometimes lacking quality (assurance). The panel believes that this should be a major point of attention for accreditation organizations, given such competition is not fair for programs that want to excel

To sum up, the panel assesses the achieved outcome level as satisfactory, given the transparency, validity and reliability of the assessment methods and the quality of the master's theses. Reaching out to policy makers at different levels to formalize the profession of deglutologist should be a priority for the program management.

#### **Final Judgement**

Generic Quality Standard 1 – Targeted outcome level	
Generic Quality Standard 2 – Learning environment	S
Generic Quality Standard 3 – Achieved outcome level	S

Given three GQS are assessed as satisfactory, the panel's final judgement of the Advanced Master of Science in Deglutology is satisfactory as well.

#### Recommendations

- The panel recommends that the learning outcomes of the program focus more explicit on the role of team leader.
- The panel recommends to set up professional communication in order to make the program more visible and attractive.
- The panel advices to provide additional funds to target high-level students from abroad.
- The panel asks the Faculty to develop a long term engagement for the program; this in order to tackle both internal and external restraints.
- The panel suggests that the program management develops a business plan.
- The panel advices to inform the students better about the structure of the program and to develop the program in a more didactical way.
- The panel recommends to make the internships more hands on.
- The panel strongly advices to expand the core teaching staff.
- The panel asks the program to inform foreign students better regarding the possibility to express discontentment.
- The panel asks the teaching staff to professionalize themselves regarding the design of the multiple choice exams.
- The panel recommends to install an exam committee that is responsible for a half-yearly quality check of the assessment methods.
- The panel insists that the students must receive more frequent feedback on their clinical practice training.
- The panel recommends to provide mentors and teachers training in feedback and to make sure that there is a standardized protocol to grade the portfolio work.
- The panel asks the program management to reach out to policy makers to formalize the profession of deglutologist.



# **APPENDICES**

# **APPENDIX I** Short biography panel members

Joke Denekens is past vice rector of the University of Antwerp. She is emerita professor in general practice/family medicine. She is specialised in medical education, quality assurance, curriculum innovation and faculty development. She has a wide experience in policy making of Universities and Colleges in higher education and in accreditation of institutions in different countries in the world. She was advisor of the minister of Health in Flanders from 1996 till 1999. She is member of the Royal Academy for Medicine in Belgium.

Laura Baijens is Associate Professor of the Department of Otorhinolaryngology, Head & Neck Surgery of the Maastricht University Medical Center (MUMC+) and GROW - School for Oncology and Developmental Biology of the Maastricht University in the Netherlands. Since 2003 she is a laryngologist and since 2018 a head-and-neck oncology surgeon. She is division leader of the Laryngology Research Projects MUMC+. Her scientific activity is mainly focused on the improvement of diagnosis and treatment of oropharyngeal dysphagia due to head and neck cancer and its oncological treatment.

Marc Benninga is professor of Pediatrics at the Emma Children's Hospital, Amsterdam. Since 2001 he is head of the department of Pediatric Gastroenterology and Nutrition. Since 2014 he is in the editorial board of Nature Reviews Gastroenterology and Hepatology. His scientific activity is focused on functional gastrointestinal disorders (colic, regurgitation, abdominal pain, constipation), motility disorders (achalasia, pseudo-obstruction), inflammatory bowel disorders and parenteral nutrition.

Serhat Yildirim is medical student at Ghent University. From 2017 to 2019 Serhat was chairman of the Flemish Union of Students: the official, representative by decree of students in Flanders and Brussels.

# APPENDIX II Time schedule site visit

#### **Monday 2 December 2019**

11:00-13:00	internal deliberation
13:00-14:00	meeting program management
14:00-14:30	internal deliberation
14:30-15:30	meeting students
15:30-16:00	internal deliberation
16:00-17:00	meeting teaching staff
17:00-17:30	internal deliberation
17:30-18:15	meeting supporting staff
18:15-18:30	internal deliberation
18:30-19:15	meeting professional filed

#### **Tuesday 3 December 2019**

09:00-10:00	visit facilities
10:00-11:00	consultation hour
11:00-11:30	final meeting program management
11:30-14:00	internal deliberation and preparation oral report
14:00-14:15	oral report