

# Compliance of Postgraduate Medical Education with WFME International Standards: Comparative Analysis of Estonia, Latvia and Lithuania

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Estonian Junior Doctors Association

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## Praxis Centre for Policy Studies

Tartu mnt 50, V floor  
10115 Tallinn  
tel 640 8000  
www.praxis.ee  
[praxis@praxis.ee](mailto:praxis@praxis.ee)

### Authors:

**Aleksandr Michelson, PhD** is an analyst at Praxis. He primarily contributes to research studies in the fields of entrepreneurship and employment. His role in the project: project manager, methodology, standards-based comparative analysis.

**Lembe Kullamaa** is a junior analyst at Praxis. Her role in the project: data gathering and analysis in Estonia, description of the practices abroad, standards-based comparative analysis.

**Liina Osila** is an analyst at Praxis. Her role in the project: data gathering in Estonia, formulating suggestions and policy recommendations.

**Baiba Plakane** is a self-employed analyst and project manager with previous administrative work experience in higher education in healthcare and a background in Economics and Business Administration. Her role in the project: analysis in Latvia.

**Kristina Grigaliūnaitė** is a trainee in Family Medicine and a board member of the Lithuanian Association of Junior Doctors. Her role in the project: analysis in Lithuania.

**Maris Vainre** is an analyst at Praxis, who contributed to the project by enhancing the methodology for ratings' analysis and by supplementing the standards-based comparative analysis.

### Contributors:

Vootele Veldre, who conducted part of the research in Estonia, published as a policy brief, and organised the research in Latvia and Lithuania. Laura Aaben, an analyst at Praxis, who conducted quality control for the main part of the final report. Sandra Haugas, an analyst at Praxis, who contributed to collecting qualitative data in Estonia.

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## Abstract

Postgraduate medical education (PME) is the phase of medical education in which physicians develop competencies under supervision following completion of their basic medical training. PME in the Baltic countries has experienced a great deal of criticism but, to date, there have been no studies that have analysed PME in the Baltic countries by applying scientific methods. The aim of the study is to analyse how PME is organised in the Baltic states (Estonia, Latvia, and Lithuania) – to identify strengths, weaknesses and opportunities and to accelerate the improvement of PME. For this purpose, the assessment is conducted to evaluate to what extent PME in the Baltic states meets international standards. The study could be regarded as the first-ever systematic mapping of PME in the Baltic countries.

The study utilises the WFME (World Federation for Medical Education) Global Standards for Quality Improvement: Postgraduate Medical Education as a framework to analyse the current situation of PME in the Baltic countries. From the original 254 WFME standards, a more compact version consisting of 56 standards was designed in relation to the context of the Baltic countries.

The research was conducted in the period of 2016-2018. Quantitative and qualitative methodologies were combined in order to produce a richer and more comprehensive understanding of the subject under observation. The study, conducted in three selected countries (Estonia, Latvia and Lithuania) involved four main phases: (1) desk research, (2) field data collection and analysis, (3) assessment of standards, (4) development of policy briefs and recommendations.

The main results show that practices differ across countries, institutions and departments. Only in a few cases does PME in the respective countries fully meet the international standard. On average, the situation in the Baltic countries could be characterised as ‘conflicting evidence that PME meets the standard’. The major concerns pertain to improper application of regulations regarding PME, inconsistency in the quality of supervision, lack of assessment of competencies, no systematic approach towards teaching soft skills or skills of scientific reasoning and methodology, little and not constant or timely appraisal, and absence of a comprehensive feedback system. Key policy recommendations to improve the current situation in PME in Estonia, Latvia and Lithuania were developed and proposed.

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# 1. Introduction

**Postgraduate medical education (PME)** is ‘the phase of medical education in which physicians develop competencies under supervision following completion of their basic medical training’ (Garofalo & Aggarwal, 2017, p. 540). The term ‘**resident**’ is used in the current study and refers to a resident physician or a postgraduate trainee who is studying in residency (i.e. PME) in a medical or dentistry speciality following basic medical or dentistry training.

One of the biggest challenges that PME currently faces is the harmonisation of residency programmes in Europe to ensure the quality of training and professional competencies in the mobile labour market of the European Union (Kuzman, Norstrom, Colin, Oakley, & Stoklosa, 2012; Pihlak, 2015, pp. 401–402; Sivera et al., 2016). PME in the Baltic countries has been criticised in the mass media<sup>1</sup>, professional sources<sup>2</sup>, and some local and regional professional events (e.g. Baltic Junior Doctors Forum held in Kaunas, Lithuania, in April 2015).

To date, there have been no studies that have analysed PME in the Baltic countries by applying scientific methods. This study was conducted as part of the international project ‘Becoming a Doctor in Baltic Sea Region – empowering junior doctors in the Baltics’ that took place from 2016 to 2018. The project aims to foster an enduring network of junior doctors’ associations from the Baltic Sea Region (Estonia, Latvia, Lithuania) supported by three Nordic partners from Finland (Finnish Junior Doctors Association), Norway (Norwegian Junior Doctors Association) and Sweden (Karolinska Institute), empowering them to participate in policy dialogue. The project’s objective is to accelerate positive developments in Baltic PME.

## 1.1. Scope of the Study

The aim of the benchmarking study is to understand how PME is organised in the Baltic states (Estonia, Latvia, and Lithuania) – to identify strengths, weaknesses and opportunities and to accelerate the improvement of PME. For this purpose, the assessment is conducted to evaluate to what extent PME in the Baltic states meets international standards. The results of the study can be used for PME quality improvements in the Baltic states. **The current study could be regarded as the first-ever systematic mapping of PME in the Baltic countries.**

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<sup>1</sup> For example: <http://epl.delfi.ee/news/eesti/kolmandik-residente-valvab-haiglas-uksi-ehkki-reeglid-seda-ei-luba?id=72033407>, <http://www.la.lv/jaruna-ar-pacienti-un-politikiem>, [https://www.youtube.com/watch?v=C\\_xZH7yWjal](https://www.youtube.com/watch?v=C_xZH7yWjal), <https://www.delfi.lt/news/daily/lithuania/medikai-isejo-i-gatves-geriausi-zmones-paliekasali.d?id=76807563>

<sup>2</sup> For example: <https://www.jauniegydytojai.lt/single-post/2017/12/28/Apie-k%C4%85-Jaun%C5%B3j%C5%B3-gydytoj%C5%B3-asociacija-kalb%C4%97s-Lietuvos-medik%C5%B3-mitinge-sausio-4-d>; <https://www.jauniegydytojai.lt/single-post/2017/02/21/Jaun%C5%B3j%C5%B3-gydytoj%C5%B3-etapin%C4%97s-kompetencijos-nuo-prad%C5%BEi%C5%B3>; Rāčenis et al. (2017). Jaunie ārsti Latvijas medicīnas notikumos. Latvijas Ārsts, Decembris 2017.

## 1.2. Methodology of the Study

### 1.2.1. WFME Standards as a Study Framework

Being concerned with the quality of PME, the study utilises the WFME (World Federation for Medical Education) Global Standards for Quality Improvement: Postgraduate Medical Education (hereinafter 'WFME standards', 2015 version) as a framework to analyse the current situation of PME in the Baltic countries.

WFME is a not-for-profit, non-governmental organisation, established in 1972 by the World Medical Association (WMA) and the World Health Organization (WHO). Its aim is to enhance the quality of medical education worldwide ([About – The World Federation for Medical Education](#)). In 1998, WFME started its programme on International Standards in Medical Education and developed documents defining the WFME global standards ([Lilley & Harden, 2003](#)). The aim was to establish a system of national and/or international evaluation, accreditation, and recognition of medical education institutions and programmes to ensure minimum quality standards for medical education ([Kokotailo, Baltag, & Sawyer, 2018](#)). The WFME standards were published in 2003 and revised and republished in 2015 ([Garofalo & Aggarwal, 2017](#); [WFME, 2015](#)). The set of global standards for quality improvement of PME is structured around 9 areas with a total of 36 sub-areas, and the 2015 revision comprises a total of 161 basic standards, 94 quality development standards and 123 annotations ([WFME, 2015](#)).

The WFME standards are defined as a global expert consensus on the standards for medical schools and other providers of medical education throughout the continuum of medical education and training: Basic Medical Education, Postgraduate Medical Education, and Continuing Professional Development. The WFME standards are divided into basic standards (minimum requirements) and quality development standards ([WFME Standards – World Federation for Medical Education](#)).

The WFME standards could be used for accreditation purposes by national/regional quality assurance systems and for institutional self-evaluation and reform by medical schools or other educational institutions ([Christensen, Karle, & Nystrup, 2007](#)). There are multiple examples of these being used for institutional self-review processes for medical schools ([MacCarrick, Kelly, & Conroy, 2010](#)) or the evaluation of educational programmes ([Al-Subait & Elzubeir, 2012](#)). Due to the growing interest in international accreditation, the WFME standards are being implemented by quality agencies in many countries for the accreditation of their degrees in medicine, with the aim of improving the quality of medical education at undergraduate, postgraduate and further education levels ([Fenoll-Brunet, 2016](#)). As a result, the WFME standards have been used in various research studies, for example, to compare curriculums of medical colleges with a worldwide standard for PME from an international comparative perspective ([Garofalo & Aggarwal, 2017](#)).

The use of the WFME standards to assess the quality of medical education has also received some criticism. It is claimed that its emphasis is primarily on processes, rather than on inputs, outcomes, and impact of medical education programmes ([Boelen, 2016](#)). Nevertheless, the WFME standards have been widely implemented internationally and can serve as a template for defining standards that extend from the institutional to the national level ([Kokotailo, Baltag, & Sawyer, 2018](#)). In making reference to the WFME standards, Lilley and Harden ([2003](#)) assert that the importance of standards in medical education is manifested through their ability to 'provide us with a coherent picture of the curriculum, of the learning opportunities available, or the expected learning outcomes and of assessment' (p. 351).

Moreover, amongst other objectives, the WFME standards create an opportunity to improve the consistency in preparedness for international medical graduates (DeMarco, Flotte, Kneeland, Seymour-Route, & Collins, 2015).

Using WFME standards as a framework for data collection and analysis, one should take into consideration the available level of a variety of resources and other constraints to make the study feasible (Bickman & Rock, 2008). Therefore, **from the original WFME standards (N=254) a more compact version of standards (N=56) was designed.** Some of standards were used as in the original WFME framework and some were reformulated by merging two or more standards (see Appendix 1).

The selection and reformulation of standards were based on the consultations within the project team and commissioner of the research. All the standards were assessed based on how relevant each standard is in the context of the Baltic states. Moreover, the assessability and specification of each standard was considered. From the nine domains of the WFME standards **four domain groups were created:**

1. Legal and organisational aspects of postgraduate medical education,
2. The quality of postgraduate medical education,
3. Assessment and feedback during postgraduate medical education,
4. The role of scientific research in postgraduate medical education.

Using the framework of WFME standards, the current study **aims to address the assessment of quality in PME in relation to international standards.**

### 1.2.2. Research Methods and Data Collection

The research was conducted across a period of 3 years (2016-2018). Quantitative and qualitative methodologies were combined in order to produce a richer and more comprehensive understanding of the subject under observation. The study, conducted in three selected countries (Estonia, Latvia and Lithuania), involved **four main phases: (1) desk research, (2) field data collection and analysis, (3) assessment of standards, (4) development of policy briefs and recommendations.** The results were published in two steps: three policy briefs in each country that were followed by the current final report in December 2018.

#### DESK RESEARCH

Desk research focused on analysing the standards, selecting most suitable sources to formulate the assessments, and argumentation. Desk research included a literature review and document analysis (focusing on analysing theme-related research studies and reports, legislation and other written regulations in force, including explanatory memorandums).

#### FIELD DATA COLLECTION AND ANALYSIS

Triangulation was used to gather the data necessary to formulate assessments. The following data sources and analysis methods were used: 1) document analysis and literature review, 2) web survey, 3) workshops with local stakeholders, 4) individual interviews and focus groups with local stakeholders, and 5) written formal inquires to institutions via e-mail.

## 1. Document Analysis and Literature Review

**Document analysis** involved the search and analysis of legal acts, policy documents, policy- and research-relevant reports and information on the websites of relevant institutions.

A comprehensive literature review was based on the **literature review** methodology that was processed, departing from the list of research topics and search terms. The literature review was limited to peer-reviewed scientific articles and book sections/chapters.

Limiting the selection to peer-reviewed scientific sources ensured that only high-quality research that thoroughly and validly studies PME-related topics was used. The peer-reviewed articles were searched from various scientific databases, e.g. ScienceDirect, Scopus, Taylor and Francis Online, and Web of Science. In addition, a web search engine, Google Scholar, was used to find relevant literature.

The results of the document analysis and literature review were used for the following:

- To analyse the current situation of PME in each selected country,
- To screen PME practices in foreign countries,
- To analyse the situation in each of the four study framework domains,
- To support the development of web survey questions,
- To interpret the results of the web survey,
- To conduct an assessment and argumentation of to what extent the PME in the Baltic states meets international standards.

## 2. Web Survey

**The aim of the web survey was to estimate to what extent the WFME standards are met in relation to residents' and supervisors' experience. For the web survey, the WFME standards were rephrased and delivered as claims, to which respondents gave valuations on a 5-point Likert scale. For each inquiry, a comment box was included.** Web surveys were conducted in each country – from January to March 2017 in Estonia, from March to May 2018 in Latvia, and from March to April 2018 in Lithuania. The following groups were invited to participate in the survey:

- medical residents who were currently in training (including those whose residency was on hold due to maternity, parental leave or doctoral studies);
- specialist doctors who had recently completed (or discontinued) the residency (in 2015 or 2016 in Estonia; those who graduated from residency in years 2016-2018 in Latvia and Lithuania)<sup>3</sup>;
- supervisors of residents.

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<sup>3</sup> Updated in March 2019.

The invitation to participate in the study was sent to residents and supervisors by the universities via mailing lists<sup>4</sup>. SurveyMonkey<sup>5</sup> was used for the data collection process. The questionnaire was in the native language for Estonia and in English for Latvia and Lithuania (questionnaires available in the Appendix 2).

The specifics of the sample size are described in the table below (Table 1). Questionnaires that included only demographic data (gender, age, speciality) without answers to questions (i.e. no ratings) and questionnaires that were likely to have been submitted twice or more (identified based on the overlap of profiles, i.e. gender, age, speciality and IP address, and/or wording of free-form comments)<sup>6</sup> were excluded from the data analysis. In addition to quantitative information, detailed qualitative information was received as answers to open questions and comments in all Baltic countries.

TABLE 1. STUDY SAMPLE

	Response rate (N)	Respondents included in analysis (N, % of respondents)	Residents (N, % of respondents included in analysis)	Graduates and those who discontinued (N, % of respondents included in analysis)	Supervisors (N, % of respondents included in analysis)
EST	600	454 75.7%	218 48.0%	55 12.1%	181 39.9%
LAT	337	221 65.6%	138 62.4%	27 12.2%	46 20.8%
LIT	471	261 55.4%	178 68.2%	42 16.1%	41 15.7%

The respondents' age was recorded in the survey part of the research (see Figure 1) and it had no effect on the differences in the answers. Neither do the estimates given by residents depend on their gender (see Figure 2) nor on the year of residency (see Figure 3). Therefore, the analysis does not present the results in relation to age and year of residency.

<sup>4</sup> In the case of Estonia, the invitation was also sent by training bases.

In the case of Latvia, speciality study programme directors were asked to forward the e-mail to supervisors in their speciality by the university's responsible person, who did not have the e-mails of all supervisors. As the activity of supervisors was low, the local researcher also approached the majority of Latvia's hospitals, contacting them via their administration e-mails and asking them to send out the survey to their lists of doctors who supervise residents. The Latvian Junior Doctor's Association published the link to the survey on their Facebook page.

In Lithuania, residents and supervisors in the Lithuanian University of Health Sciences were contacted via their representatives in each speciality and through a university employee respectively. Residents and supervisors in Vilnius University were contacted directly. However, the e-mails for supervisors in Vilnius University were found via Internet search, as the university does not collect their e-mails, so the link to the survey might not have reached all supervisors.

<sup>5</sup> <https://www.surveymonkey.com/>

<sup>6</sup> In this case, the more informative filled-in questionnaires were chosen, which were generally submitted last.

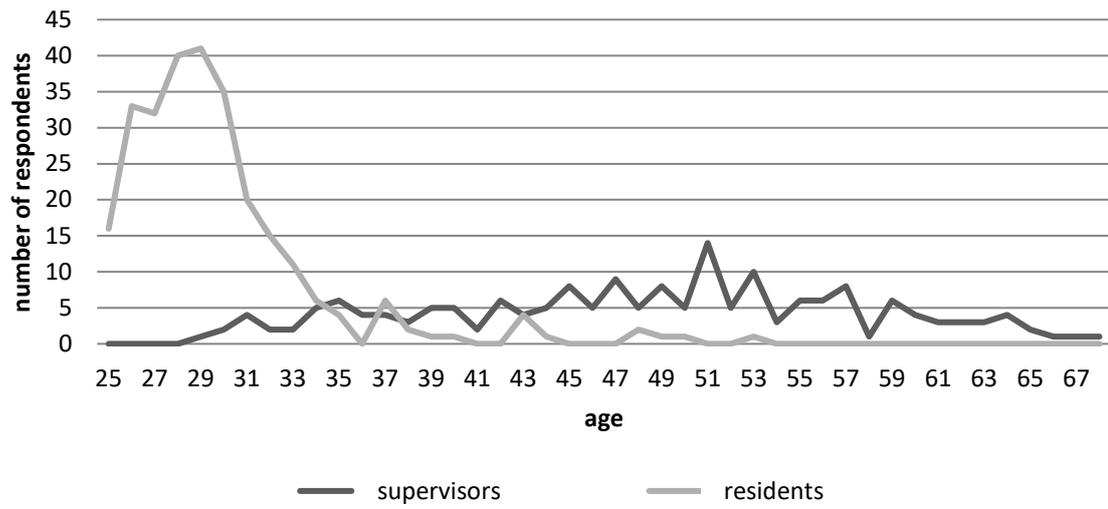


FIGURE 1. DISTRIBUTION OF RESPONDENTS BY AGE IN ESTONIA (RESIDENTUUR, 2017)

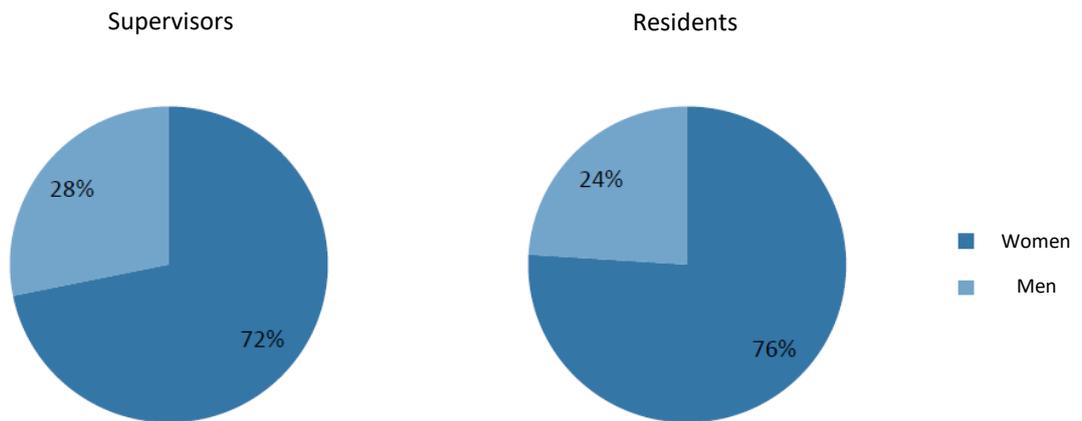


FIGURE 2. DISTRIBUTION OF RESPONDENTS BY GENDER IN ESTONIA (RESIDENTUUR, 2017).

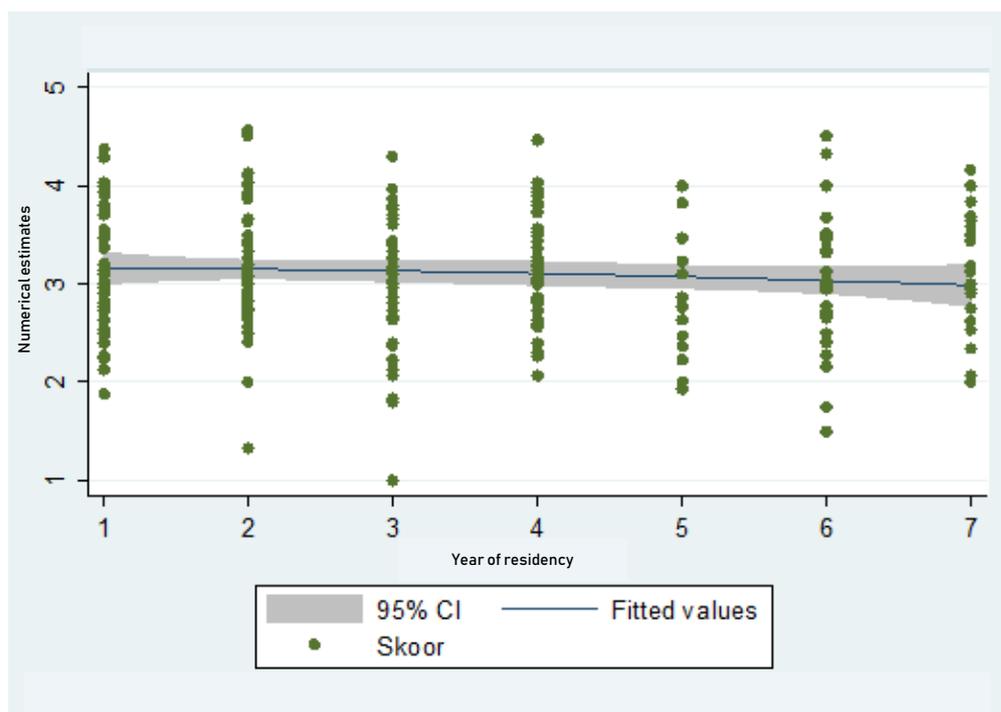


FIGURE 3. NUMERICAL ESTIMATES (MIN=1; MAX=5) FOR ITEMS IN THE QUESTIONNAIRE BY THE YEAR OF RESIDENCY IN ESTONIA

### 3. Local Workshops

To identify the main problems regarding PME, **local workshops** were organised in each Baltic state with the main stakeholders: partners responsible for PME (ministries and universities), hospital managers, leaders of professional associations in the field of healthcare, patient organisations, residents and supervisors. Two workshops in Estonia were organised in 2016 and 2017, one in Latvia in 2018 and one in Lithuania in 2018. The events (except for a local workshop in Estonia in 2016) included a presentation of the web survey results in each country and a brainstorming session to find feasible solutions to enhance the situation in the country. The results of the discussion were integrated into the country level and comparative analysis. The workshop was used also as a tool to test the conclusions and hypotheses of the preliminary assessment analysis.

### 4. Individual Interviews, Focus Groups and Written Inquiries

Four individual semi-structured **interviews** and three **focus groups** with stakeholders in Estonia (some parts of interviews focusing on PME conducted within the OSKA<sup>7</sup> study in the healthcare sector were also used for the current research), ten individual interviews with stakeholders in Latvia, and two written inquiries and four individual interviews in Lithuania were carried out. These were conducted to gather additional information for the study and to validate the results of the research

<sup>7</sup> OSKA analyses the needs for labour and skills necessary for Estonia's economic development over the next 10 years. <http://oska.kutsekoda.ee/en/> (last accessed 27 September 2018)

after the analysis was completed. The interviews were recorded. Depending on the researchers' needs, some of them were transcribed.

Additional data collection was also performed when it was necessary to collect further information, for example, by asking to send the reports of expert evaluations of the PME programmes, which were mentioned during one of the interviews.

### ASSESSMENT OF STANDARDS

The purpose of the benchmarking is to compare the current situation of PME in the selected country to the WFME standards. A numerical assessment formulation and an argumentation were conducted in each Baltic country based on the data acquired by using all previously described methods.

A total of 56 locally adjusted WFME standards were taken under analysis. A numerical value was assigned to each single standard using the following rating scale:

- 0 – the current situation of PME does not correspond to the standard in any way;
- 1 – scant or limited evidence that PME meets the standard;
- 2 – conflicting evidence that PME meets the standard;
- 3 – strong evidence that PME meets the standard with some (minor) deviations;
- 4 – irrefutable evidence that the current situation in the PME meets the standard.

Using numerical values makes the interpretation of the analysis and the comparison of the quality of PME across countries easier.

Numerical values were assigned with arguments supporting the rating by local research team members. Ratings were based on the triangulation of data collected by using the methods stated above. Only the current situation (legislation in force) and examples from practice reflecting the situation during the last 365 days (i.e. in 2016/2017) and in 2018 are considered to be appropriate to base the assessments upon.

The results of assessment formulation and argumentation in each Baltic country were used for comparative analysis in order to identify major similarities and differences between the three selected countries.

In order to reduce inter-rater variability and thus enhance cross-country comparability, all ratings were standardised by converting them to z-scores. This means it can be claimed with more confidence that a z-score of 1 has the same meaning across three countries and is less biased by raters' interpretation of the rating scale for each country.

For the conversion, the country's mean score across all 56 ratings ( $\bar{x}$ ) was subtracted from each rating score ( $x$ ) and then the result was divided with the standard deviation ( $s$ ) of the scores for that country:

$$z = \frac{x - \bar{x}}{s}$$

The means and standard deviations for each country are displayed below in [Table 2](#).

**TABLE 2.** MEAN ( $\bar{x}$ ) AND STANDARD DEVIATION (s) ACROSS ALL 56 STANDARDS' RAW RATINGS FOR EACH COUNTRY

	Estonia	Latvia	Lithuania
$\bar{x}$	1.86	2.13	2.02
s	0.86	0.95	0.75

So, for example, if a Latvian standard was rated as 2, the z-score for that particular standard was calculated as follows:

$$z = \frac{2 - 2.1250}{0.9547} = -0.1309 \approx -0.13$$

The z-scores are normally distributed, the mean is 0 (for each country) with a standard deviation is 1 (again, for each country). This is a widely accepted and used procedure to standardise scores and is described in most statistics textbooks (e.g., Field, 2013). For the comparison between the raw scores and the z-scores, please see Appendix 4. A z-score of 0 is, as mentioned above, the mean, and in the context of the report signifies conflicting evidence on whether the PME meets the WFME standards. Any negative number is thus below average and any positive number above average. Since 1 is now the standard deviation, it constitutes a considerable difference from 0. Thus -1 is well below the mean, while 1 is well above the mean. Scores of -2 and 2 indicate a large difference from the mean. For the sake of simplicity, we propose the following way of mapping of z-scores onto the scale described above:

- 2 – the current situation of PME does not correspond to the standard in any way;
- 1 – scant or limited evidence that PME meets the standard;
- 0 – conflicting evidence that PME meets the standard;
- +1 – strong evidence that PME meets the standard with some (minor) deviations;
- +2 – irrefutable evidence that the current situation of PME meets the standard.

Both ratings, the raw and the standardised, are provided in the analyses (see Appendix 4 and 5).

## DEVELOPMENT OF POLICY BRIEFS AND RECOMMENDATIONS

The study aims to generate robust policy recommendations that are derived from the combined insights from applying the abovementioned research methods. Policy recommendations offer plausible and actionable mechanisms for addressing current deficiencies in PME in all three Baltic countries.

Firstly, initial policy recommendations were developed separately in each country based on the results of desk research and web surveys. They were discussed during local workshops, individual interviews and focus groups with stakeholders and then further developed and elaborated after the analysis of the collected research data. Policy recommendations were firstly published in the national policy briefs that were created and published separately from the current report and principally focused on the survey results. In the case of Estonia, the national policy brief was published already by 2017 before conducting interviews and focus groups. Therefore, the analysis and policy recommendations in the

Estonian policy brief were largely based on the results of desk research and web survey. Three national policy briefs can be found as follows:

- Veldre, V. (2017). *Residentuur Eestis – Kuidas edasi?* Tallinn: Poliitikauuringute Keskus Praxis. [http://www.praxis.ee/wp-content/uploads/2017/02/Residentuur\\_Eestis\\_analyys.pdf](http://www.praxis.ee/wp-content/uploads/2017/02/Residentuur_Eestis_analyys.pdf) (in Estonian).
- Plakane, B. (2018). *Rezidentūra Latvijā – izaicinājumi un izaugsmes iespējas*. Tallinn: Poliitikauuringute Keskus Praxis. [http://www.praxis.ee/wp-content/uploads/2017/02/Postgraduate-Medical-Education-in-Latvia\\_Policy-Brief.pdf](http://www.praxis.ee/wp-content/uploads/2017/02/Postgraduate-Medical-Education-in-Latvia_Policy-Brief.pdf) (in Latvian).
- Grigaliūnaitė, K. & Pečkauskas, A. (2018). *Rezidentūra Lietuvoje: bręstantis iššūkis*. Tallinn: Poliitikauuringute Keskus Praxis. [http://www.praxis.ee/wp-content/uploads/2017/02/Postgraduate-Medical-Education-in-Lithuania\\_Policy-Brief.pdf](http://www.praxis.ee/wp-content/uploads/2017/02/Postgraduate-Medical-Education-in-Lithuania_Policy-Brief.pdf) (in Lithuanian).

National policy briefs were used for both the so-called standard-based analysis (see Appendix 5), when the situation in PME was analysed against each standard separately, and the comparative analysis presented in Chapter 2. The current report combines policy recommendations made for each country separately.

## 2. Compliance to WFME International Standards: Comparative Analysis of Estonia, Latvia and Lithuania

The current chapter focuses on PME in Estonia, Latvia and Lithuania from a comparative perspective by analysing the compliance of PME with the WFME standards. Major similarities, differences and common challenges in relation to each group of selected standards are discussed in this chapter. Numerical values assigned to each standard to assess to what extent the situation in a respective country meets the standard are presented in [Appendix 4](#), where the data on all three countries are included in the table.

Argumentations for assigning a numerical value for each country per standard are presented in [Appendix 5](#). These argumentations together with policy briefs mentioned in [Chapter 1.2](#) form the basis of the current comparative analysis which utilises the data gathered during the whole period of the research study by applying the methods of desk research and field data collection and analysis, including web surveys, individual and focus group interviews.

Several studies (e.g. [Cranston et al., 2013](#); [Pettoello-Mantovani et al., 2014](#); [van der Aa, Goverde, Teunissen, & Scheele, 2016](#)) claim that there are significant differences in the organisation, content and governance of PME in respective PME programmes across the European countries. The Baltic states are no exception. Moreover, the EU does not have a clearly identified administrative structure devoted specifically to medical education. Therefore, the responsibilities in this area are shared by different departments or agencies of the European Commission, and it has been argued that the management of medical education in the 28 member countries of the European Union would require appropriate coordination, backed by an adequate cultural knowledge, a balanced strategic vision, and constant supervision ([Pettoello-Mantovani et al., 2014](#)). Therefore, there have been attempts in Europe to develop and implement respective modern pan-European curriculums with the aim of harmonising quality standards of practice and standards of postgraduate training, to ensure equal quality of training, promoting mobility throughout Europe, and to enhance cooperation and exchange of best practices ([van der Aa, Goverde, Teunissen, Scheele, 2016](#)). The European Union of Medical Specialists<sup>8</sup> seeks to contribute to the improvement of medical training at the European level through the development of European Standards in different medical disciplines.<sup>9</sup>

We briefly describe how PME is organised in two Nordic countries and three other European countries: the United Kingdom, the Netherlands and Germany (see [Appendix 3](#)) with an aim of demonstrating heterogeneity in how PME is organised across Europe. This selection from amongst the European countries was based on the proximity of the country to Estonia, the availability of reliable English secondary sources and, to a smaller extent, a possibility to describe both the advantages and disadvantages of different PME systems.

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<sup>8</sup> European Union of Medical Specialists. <https://www.uems.eu/>

<sup>9</sup> European Union of Medical Specialists. Postgraduate Training. <https://www.uems.eu/areas-of-expertise/postgraduate-training>

## GENERAL DESCRIPTION OF PME IN ESTONIA, LATVIA AND LITHUANIA

PME in the Baltic states is regulated by law and links multiple stakeholders: residents, supervisors, institutions providing practical training and others. PME is second-level higher professional education, that is acquired in a work environment, to provide healthcare systems with certified specialists. **While a resident who finishes PME is a certified specialist in Estonia and Lithuania, a resident in Latvia must pass two additional exams.** The exams take place outside of PME and are organised by the university and the speciality associations who are responsible for issuing certification in their speciality. However, universities and speciality associations in many specialities in Latvia have agreed to combine university and certification exams into one exam.

There are two main bodies that shape PME in Estonia. The University of Tartu is the institution that organises PME and provides theoretical courses. The Estonian Ministry of Social Affairs is the government body responsible for the funding of PME, workforce planning, its legal framework development through multilateral negotiations, and determines the number of state-funded residency places. Speciality organisations are responsible for (re)accreditation of specialist doctors and are included as experts in discussions determining the number of residency places in the speciality. (Re)accreditation of specialists generally takes place every 5 years, although it is on a voluntary basis and depends on regulations developed by specialist organisations (Praxis, 2013). PME consists of theoretical training at the university and practical training in healthcare institutions. Throughout the residency, residents are in a contractual relationship with their training base and participating in the provision of healthcare services. **In Estonia, under certain circumstances the residents have an opportunity to choose their training base from a list stated in the speciality programme.** This depends on the availability of places, in accord with programme director, and other factors.

In Latvia, the Ministry of Health determines the number of residency places funded from the state budget, distributes the funds, and develops the documents regulating residency and healthcare in Latvia. The practical training is organised in healthcare institutions. The two universities, University of Latvia and Rīga Stradiņš University, ensure admission of doctors to residency, organise training and carry out speciality programmes by concluding contracts with healthcare organisations. A significant part of the theoretical training is provided by healthcare institutions, and universities provide only part of it. In Latvia, residents have two roles: 1) they are employees of the medical institutions, and 2) as students, they have study contracts with the university. The Latvian Medical Association is responsible for the certification of speciality doctors. **In Latvia, the residents are given an opportunity to choose between different hospitals and departments regarding where to undertake a specific rotation** (if there are multiple hospitals or departments to choose from).

In Lithuania, organising bodies of PME include the Ministry of Health, the Ministry of Education and two universities, the Lithuanian University of Health Sciences and Vilnius University. The Ministry of Health predicts the future demand of doctors of different specialities and provides their suggestions to the Ministry of Education on a yearly basis. **In Lithuania, the universities decide upon the requirements for application for a residency and the content of the residency programmes.** The universities are also responsible for the theoretical part of PME. The university hospitals carry out most of the training process by acting as main residency bases. The State Healthcare Accreditation Agency under the Ministry of Health issues licences after finishing PME based on documents provided by the universities. In Lithuania, the upcoming implementation of Entrustable Professional Activities (EPAs) will hopefully offer a paradigm shift in medical education, potentially transforming the future face of the entire

healthcare system. However, this is impossible without the substantial efforts and cooperation of all stakeholders.

The following comparative analysis of PME in the Baltic states is presented in four subchapters, each corresponding to four thematic domain groups of WFME standards (see Appendix 1):

1. Legal and organisational aspects of postgraduate medical education,
2. The quality of postgraduate medical education,
3. Assessment and feedback during postgraduate medical education,
4. The role of scientific research in postgraduate medical education.

For more detailed information regarding the analysis, please consult policy briefs and assessment of standards in each country, provided in Appendix 5.

## 2.1. Legal and Organisational Aspects of Postgraduate Medical Education

Although **regulations** regarding PME in the Baltic countries are in place, the major concerns pertain to their implications. While PME is clearly regulated in the Estonian legislation, in practice there are several shortcomings, such as a lack of minimum standards for training bases and definition of the content of supervision, and a current feedback system that, according to residents, is lacking practical content and substance. In Latvia, there is a need for improving evaluation forms and updating one of the regulations with an aim of improving the content of speciality study programmes. In Lithuania, the implementation of the documents, as seen by residents, depends on each specific committee and coordinator, who often interpret the recommendations stated in regulations differently (see Appendix 5, Chapter 1, Standard 1.1).

The satisfaction with the **intended educational outcomes** of the programmes by principal stakeholders varies across countries. The programmes are publically available (except Latvia) and do not reflect the true nature of PME (Lithuania). In Estonia, the major concerns are the absence of stated outcomes for individual residency rotations and non-involvement of all stakeholders in the adjustment of PME programmes. Achieving the intended educational outcomes in Latvia is affected by the tension regarding the responsibilities in organisation and carrying out of residency because of the divide between universities and hospitals. Moreover, Latvian stakeholders indicate that a coordinated action is necessary to improve the quality of intended learning outcomes of speciality programmes stated in the Cabinet of Ministers regulations that are the basis for the intended educational outcomes of PME programmes. Residents in Lithuania strongly disagree that PME in their speciality is organised in line with their understanding of how it should be provided. This separation of opinions between residents and their supervisors reveals that, although all interested parties have ideas regarding how programmes should be implemented, the measures currently in place are not sufficiently effective to discuss these ideas and implement the adopted solutions (see Appendix 5, Chapter 1, Standard 1.2).

Concerns have been raised regarding the **length of PME** in certain specialities in Estonia and Lithuania and the lack of clinical practice in Lithuania.

The **renewal process of PME programmes** in the Baltic countries is not regular, relies strongly on the coordinator or programme director, and does not include all relevant stakeholders. For example, the review of study programmes is the responsibility of the heads of study programmes in Estonia and Latvia (other stakeholders are not involved) and of the Residency Committees (Commissions) as part of internal quality control in Lithuania.

In terms of the legal and organisational aspects of PME in the Baltic countries, a policy which defines the criteria and the process for **selection of residents** is clearly formulated, with some minor shortcomings in the practice in Lithuania, where criteria guidelines, which slightly differ across universities, are renewed almost annually to reach an agreement amongst all stakeholders and are not implemented in some departments. Although specific policies regarding the selection of candidates are established, the selection process is **not perceived as fully transparent** in all three countries, especially the oral part of the examination. In Estonia there is conflicting evidence regarding the feeling of fairness within the selection of residents and the delivery of programmes, while this is a considerably more acknowledged problem in Latvia and Lithuania. For example, in Lithuania, a motivational score in some cases can determine admission results. Additionally, residents in Estonia, for example, have raised concerns that the PME admission exam is subjective, with male candidates or 'familiar faces' being preferred. **Inequality** was also perceived by residents through sexual harassment cases that were reported by residents during interviews in Estonia and in the survey comments in Lithuania.

The planning regarding the **intake of residents and the education capacity** is not in balance in the Baltic countries. In Estonia, there are currently no interdisciplinary minimum standards for the planning of education positions and the number of accepted residents is high in order to compensate for the lack of labour needed. In Latvia, there is a mismatch between the interests of the university (taking in additional residents and receiving the tuition fee) and the hospital (with no additional capacity to supervise and ensure an adequate learning environment for the resident). Residents in Estonia and Latvia expressed their concerns regarding the lack of supervision, which was perceived as a factor that should influence the decision on the number of residency places. In Lithuania, an imbalance in the distribution of residents between departments in hospitals exists due to the large number of residents and lack of proper management of hospitals and PME. Residents in all three countries complained about the working environment (e.g. lack of available workstations for residents in certain departments) (see [Appendix 5, Chapter 1, Standard 1.6](#)).

The common major challenge in PME in the Baltic countries is the absence of clear policy formulated and implemented for the recruitment and selection of **supervisors**. Only basic requirements exist, generally based on the length of time working as a specialist. During the interviews in Estonia, it was stated that the number of specialists in some specific medical areas is small and it might occur that only one specialist could become a supervisor (see [Appendix 5, Chapter 1, Standard 1.7](#)). Furthermore, giving feedback from residents to supervisors differs across countries. In Lithuania, feedback is asked from residents only in the case of official complaints and in Estonia it is given on a voluntary basis. Only in Latvia are residents obliged to fill out supervisor evaluation forms.

The actual implementation of the freedom to **choose the institution and/or its subunit to pass part of residency**, as perceived by the interviewees in Lithuania, often depends on the decision of the coordinator of the residency. Residents in Estonia claim that there is a lack of flexibility in the choice of location of rotations in certain disciplines, and family circumstances (including having a child) are not considered in determining the location of rotation placements. In addition, **PME is not flexible in terms**

**of arrangement.** Currently, all residents must be in full-time training and this does not take into consideration residents with health problems, families and children and other personal concerns, or residents wishing to participate in research activities or to do doctoral studies at the same time (see Appendix 5, Chapter 1, Standard 1.8). Estonia is one of five European countries where residents are not allowed to complete their PME part-time. In 73% of countries, residents can complete their PME working less than full-time (European Junior Doctors Association, 2018).

Flexibility in PME might be especially valuable for female residents. According to Ziegler, Zimmermann, Krause-Solberg, Scherer and van den Bussche (2017), male and female physicians differ in terms of their preferred workplace (hospital, ambulatory care, others), hospital position and working hours. In addition, female physicians, especially those with children, might need more time to complete their postgraduate training (Ziegler et al., 2017). Female physicians with children are burdened and disadvantaged more often than their female colleagues without children as well as male physicians in general (e.g. belated start and completion of residency, lower rate of doctorate titles, higher quota of part-time contracts, short-term employment contracts, and higher rates of residency interruption or termination) (Ziegler et al., 2017). For example, van den Bussche et al. (2018) found that female residents in Germany expect a longer prolongation of postgraduate education compared to men, with problems in relation to children as the most important factor, while half of the reasons given by male residents are related to organisational and curricular problems of postgraduate education. In conclusion, flexibility in PME is needed to meet the needs of residents.

## 2.2. The Quality of Postgraduate Medical Education

The ratings of the assessment procedure show that there are **two well-organised aspects of PME in the Baltic states**: the basic medical education provides a high-level understanding of basic biomedical sciences before starting PME; and residents have access to up-to-date professional literature.

However, there are several fundamental issues to be addressed. **Inconsistency** is the main keyword characterising Estonian, Latvian and Lithuanian PME. The quality of supervision; balance between theory and practice; residency experience; and assessment of competencies can vary significantly between specialities, rotations, healthcare institutions and their departments. Consequently, the professional knowledge of new medical specialists may vary, and training described in the regulating documents does not reflect the reality.

All PME programmes are compliant with the European minimum standards stated in the European Commission Directive 2013/55/EU<sup>10</sup> and Directive 2005/36/EC<sup>11</sup> of the European Parliament and of the Council. However, as the survey results and the analysis of interviews showed, **the minimum length is not sufficient to achieve full competencies** required from a specialist doctor. The programme content

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<sup>10</sup> Directive 2013/55/EU of the European Parliament and of the Council of 20 November, 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System ('the IMI Regulation'). Available: <https://eur-lex.europa.eu/eli/dir/2013/55/oj>

<sup>11</sup> Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications. Available: <https://eur-lex.europa.eu/eli/dir/2005/36/oj>

is the same as stated in recommended curriculums compiled by pan-European specialist organisations, but the training time is shorter (Estonia, Lithuania) than the European average or the rotations' content and length need to be adjusted (Latvia) (see Appendix 5, Chapter 2, Standards 2.1 & 2.2).

PME should prepare the resident for all roles expected from a specialist doctor. In addition to the acquisition of clinical knowledge, the studies also need to include systematic development of other competencies, such as communication and teamwork skills and the importance of lifelong learning. Currently in the Baltic states, **soft skills are not considered an equally important** part of medical education.

The tuition of skills needed to work within professional and interprofessional teams has been criticised in all three countries. In PME programmes (Estonia, Lithuania) and in legislation (Latvia), the **communication and teamwork skills** are defined as learning outcomes, but their implementation and teaching are not always provided. In Estonia, communication skills and resolving sensitive situations have been taught in basic medical education since 2016, but the courses are read in the pre-clinical part of basic medical education, when the students do not yet have the relevant background. In Latvia and Lithuania, communication skills and resolving sensitive situations are seen as something that should be acquired during clinical work (see Appendix 5, Chapter 2, Standard 2.13). Medical ethics, medical legislation and other soft skills are included in only a few of the residency programmes (Estonia, Lithuania) or taught during basic medical education as an elective (Estonia). In Latvia, residents are offered seminars on medical ethics and patient safety, however these are not mandatory (see Appendix 5, Chapter 2, Standards 2.17 & 2.18).

In addition, providing **research experience** to residents is another area in PME that needs a more coherent approach across specialities. Both doctoral students as well as those not wishing to obtain a doctoral degree should have an opportunity to conduct research. Currently, medical research and clinical epidemiology are seen as experiences that are gained separately as part of doctoral studies before or after PME (Estonia) or not emphasised due to the lack of interest and experience of the supervisors (Latvia, Lithuania) (see Appendix 5, Chapter 2, Standard 2.14).

Furthermore, there is **insufficient balance between providing healthcare services, training and research**, including the lack of systemic development of supervisors' teaching (pedagogical) skills, mechanisms of feedback and access to high-quality research opportunities (see Appendix 5, Chapter 2, Standards 2.10-2.12). **Appropriate teaching methods are not used**, primarily due to the supervisors' lack of pedagogical education and time resources (see Appendix 5, Chapter 2, Standard 2.25). Moreover, the educational value of PME is highly dependent on the individual supervisor and, in some cases, the supervisors are not interested or motivated to teach or do not know how, and are unwilling to learn appropriate teaching methods or unable to fit relevant courses into their work schedule. Formally, PME has an apprenticeship nature for professional development, but providing healthcare services as part of PME is clearly emphasised and residents are used to cover labour shortages (Latvia, Lithuania, to a lesser extent in Estonia). Clinical practice and autonomy are considered controversial in the assessment of Estonian, Latvian and Lithuanian residency programmes. Residents, depending on their speciality, are often only observers or, in contrast, required to work independently from the outset and receive no supervision. Lack of clinical practice in PME in general was brought up in Latvian and Lithuanian standards assessment.

**Doctors' wellbeing (self-care) is not mentioned** in any of PME programmes (Estonia, Latvia, Lithuania). Appropriate working conditions and maintaining residents' health is of most concern in Latvia and Lithuania due to low salaries and additional stresses caused by the economic situation of residents. Additionally, **inappropriate working conditions**, lack of workstations (Estonia, Latvia, Lithuania), longer working hours than officially stated (Latvia), and residents working in several positions in order to manage economically (Latvia, Lithuania) are detrimental to residents' physical and emotional health (see Appendix 5, Chapter 2, Standard 2.5).

Due to low salaries in Latvia and Lithuania, residents must work in several places, which results in long working weeks and high stress levels. During the study period, Estonian residents receive a salary equal to the minimum salary of a certified doctor<sup>12</sup> whereas, in Latvia and Lithuania, low residents' and supervisors' salaries, high workload and inadequate infrastructure in some institutions affect the quality of training. In Latvia, the minimum level of remuneration for residents is set by the Cabinet of Ministers' regulations No. 595<sup>13</sup>. Same regulations also set the minimum remuneration payable to certified doctors, nurses, and other specialists working in state and municipally owned institutions. In Lithuania, the total income of residents consists of two parts – the salary, paid by the Ministry of Health via the hospitals, and the scholarship, paid by the Ministry of Education via the universities. However, from 2019, the entire sum will be paid as salary (the scholarship will be transferred to the salary) in order to secure social benefits for residents, e.g. paid maternity leave, etc. The low salaries of residents correspond to the low salaries of employees throughout the entire health sector.

## 2.3. Assessment and Feedback during Postgraduate Medical Education

Practices of defining the intended educational outcomes of the programmes regarding knowledge, skills and attitudes and future roles in the healthcare sector (see Appendix 5, Chapter 2, Standard 2.21) vary and do not fully meet the international standards across the Baltic countries. For example, in Estonia, the knowledge, skills and attitudes the resident should acquire by the end of each academic year are mapped out in only few specialities' programmes.

The volume of a resident's independent work should increase as skills, knowledge and experience grow. However, in Estonia the **level of independence varies** greatly and is more based on specialities' labour force requirements and what supervisors allow rather than residents' experience. Regardless of this, individual supervisors are legally fully responsible for the resident's work until the end of the training rotation.

In Latvia, there is a wide range in the residents' allowed independence levels in different specialities and healthcare institutions. The regulations require that residents' degree of independent responsibility is increased during the third year of PME. However, in practice, what residents should be able to do independently is not defined and evaluation of residents' skills after the second year is lacking (see Appendix 5, Chapter 3, Standard 3.5).

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<sup>12</sup> Available: [https://haiglateliit.ee/wp-content/uploads/2017/05/Tervishoiuvaldkonna\\_kollektiivleping\\_25\\_1.pdf](https://haiglateliit.ee/wp-content/uploads/2017/05/Tervishoiuvaldkonna_kollektiivleping_25_1.pdf)

<sup>13</sup> Available: <https://likumi.lv/doc.php?id=212565>

In Lithuania, there is a system of junior and senior residents, however the degree of responsibility still depends on the supervisor as there is no legal base that provides guidance for increasing competencies of the resident.

One of the main shortcomings of PME in the Baltic states is that residents receive **little and no continuous or timely appraisal and feedback**. However, the practice differs across departments/programmes and is highly dependent on each specific supervisor. The arrangement of resident assessment is not systematic. In Estonia, no detailed evaluation principles, aims, methods and practices were found except for the final exam, which is explicitly explained in specialist programmes. Currently, residency diaries and supervisor feedback forms exist and are a part of summative assessment, but they do not fulfil their function (see Appendix 5, Chapter 2, Standard 2.28; Chapter 3, Standard 3.4). Feedback provided is not comprehensive or developing. The feedback forms are often filled out by supervisors using only tick-boxes, or residents themselves are asked to fill them out. Only in selected specialities does an interim examination take place. Thus, no or only very limited evaluation/assessment seems to be performed before the final exam. The assessments in Latvia are summative and cover knowledge and skills but not attitudes. In Lithuania, both the final assessment and interim rotation evaluations (electronic diaries) are not organised systematically and there is a great variation between different departments: the system of examination of residents is often subjective and unbalanced, and implementation is highly dependent on residency programmes. Therefore, formative assessment and feedback are strongly lacking in the PME in all Baltic states.

In all three countries the **reliability, validity and fairness of assessment methods are not evaluated and documented** and defined sets of assessment methods and formats are scarcely and unsystematically used. Hence, **constructive and specific feedback is lacking**, as principally perceived by residents<sup>14</sup>.

## 2.4. The Role of Scientific Research in Postgraduate Medical Education

The WFME standards emphasise the role of understanding research methods in ensuring critical appraisal of evidence and evidence-based interventions. Indications were found that the training programmes in the three Baltic countries, to an extent, offer skills of scientific reasoning and teach empirical methodology. On the other hand, the provision of this knowledge is not formalised across the country (except Latvia) and it seems likely that many residents are generally expected to accumulate these skills on their own with minimal external support or feedback. The latter, as Quinton and Smallbone (2010) have argued, is an important component to enhance learning in tertiary education.

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<sup>14</sup> Provision of meaningful assessment and feedback deserves separate detailed research in the Baltic countries. For example, one study identified the barriers to meaningful assessment and feedback in medical training in Canada and showed reluctance from supervisors to report poor performance and to fail underperforming trainees (McQueen et al., 2016). This reluctance was driven by various factors including insufficient documentation, a perceived lack of support from programme leadership, insufficient opportunities to observe performance, competing demands on time, fear of appeals or legal action, and a fear of reciprocated poor staff evaluations (McQueen et al., 2016).

Latvia is the only country of the three that has fully integrated research to its PME: writing a research paper is a precursor to graduating from all speciality PMEs. Meanwhile, in Estonia and Lithuania, where the research methodology is part of the undergraduate curriculum, the integration of research work to PME varies across programmes (see Appendix 5, Chapter 4). However, despite the formal requirement to engage with research in Latvia, residents' preparedness to use and apply scientific methods and reasoning is lower than Estonia and Lithuania. Based on the survey in Latvia, we see indications of a tokenistic approach towards Latvian residents' engagement with research (see also the paragraph below): a considerable proportion of residents and supervisors lack confidence that the PMEs offer sound research skills. On the other hand, in Estonia and Lithuania, not all residents need to complete a research project, can choose to do so freely, or have relaxed criteria for its outcomes. In both countries a higher proportion of residents and supervisors deemed scientific approach to play a central role in their field of work. This was not specifically studied, but it may be that since doing a research project is not a mandatory part of all courses, residents can opt to pursue an empirical investigation and may therefore feel more intrinsically motivated, able to learn more through the process and/or assign a higher value to the outcomes (see Bomia et al., 1997 for a more detailed discussion of these ideas).

The hypothesis of a tendency towards perfunctory research projects amongst Latvia's future doctors is further supported by the evidence on the WFME standard: "The trainees are encouraged to engage in medical research and quality development of health and the health care system." Latvia received a more moderate assessment compared to other countries. Residents in Latvia lack the freedom to choose a research topic of their interest. Instead, they find themselves rigidly bound to their supervisors' research focus or pursuing a topic that has remained unchanged for many years. In Estonia, lack of formal allocation of time that would allow residents to dedicate their efforts towards a research project discourages residents' engagement in research. By contrast, in Lithuania most residents stated they are encouraged to conduct research on a topic of their choice.

Regarding residents' ability to appraise the quality of research and scientific data, the evidence of compliance with the standard in all three countries is conflicting, expressing limited confidence in the future doctors' ability to understand the reliability of existing evidence. This assessment mirrors the current global situation that has persisted for the past 40 years (Manrai, Bhatia, Strymish, Kohane, & Jain, 2014; Martyn, 2014). Thus, today's residents are likely to be taught by those who have limited understanding of the interpretation of research results (and particularly of statistics and probability). This is concerning, since doctors have a frequent need to assess evidence — when consulting with clinical guidelines, understanding levels of risk, interpreting results of tests or when reading research publications when considering applying a non-standard treatment option (Swift, Miles, Price, Shepstone, & Leinster, 2009). The residents in all three countries are aware of this and express the need for more comprehensive training in this area (similar to doctors in the East of England, as reported by Swift, et al., 2009).

## 2.5. Summary

The results presented in the current chapter and in Appendix 5 in addition to the national policy briefs show that practices of how to organise PME differ across Baltic countries and across departments within institutions. Only in case of single standards does the situation in PME in a respective country fully meet the international standard. On average, the situation in the Baltic countries could be characterised as

‘conflicting evidence that PME meets the standard’ because an average raw score equals to around 2 (see Table 2 in Chapter 1.2). The following major challenges were identified:

- There are deficiencies that pertain to the description and implication of educational outcomes.
- The absence and lack of implementation of a clearly formulated policy for recruiting and selecting supervisors. In addition, there is a lack of systemic development of supervisors’ teaching (pedagogical) skills.
- The renewal process of PME programmes is not regular, relies strongly on the coordinator or programme director, and does not include all relevant stakeholders.
- PME is not flexible in terms of allowing a consideration of individual needs of residents (e.g. no option for part-time residency).
- In general, the residency admission system is considered transparent and fair by residents and supervisors. Nevertheless, in all three countries, the analysis revealed that perception of opacity and favouritism exist in all three countries.
- Female residents experience sexual harassment and there are also indications of sexual discrimination against women during the residency or the admission process in residency.
- The quality of training could be characterised as inconsistent:
  - The quality of supervision – primarily because of lack of time, balance between theory and practice, residency experience, and assessment of competencies – can vary significantly between specialities, rotations, healthcare institutions and their departments.
  - Emphasis during the residency tends to shift towards healthcare service provision instead of teaching necessary skills.
  - Soft skills are not considered an equally important part of medical education.
- Residents receive little and not constant or timely appraisal and feedback. Received appraisal is largely summative. However, the practice differs across departments/programmes and it also highly depends on each specific supervisor. The organisation of assessment of residents is not systematic.
- The provision of the skills of scientific reasoning and empirical methodology is not formalised across countries (except Latvia) and it seems likely that many residents are expected to accumulate these skills mostly on their own with minimal external support or feedback.
- Various shortages in residents’ working conditions were identified, e.g. long working hours and no time to read theoretical materials or guidelines during the working day, problems with workstations and work conditions for residents.

These challenges are addressed in the following chapter where policy recommendations are proposed.

### 3. Policy Recommendations

Based on the analysis in the previous chapter, national policy briefs and standard-based analysis presented in [Appendix 5](#), key policy recommendations to improve the current medical residency system in Estonia, Latvia and Lithuania have been developed and proposed.

#### 1. Introduce and enforce minimum PME standards, including standards for supervision

The current PME system in Estonia maps out the general outcomes of the programmes but does not state the specific educational outcomes of individual rotations. In Latvia, study programmes are not publically available and educational outcomes vary across specialities, some being very broad. In Lithuania, the educational outcomes listed in the residency programmes often do not reflect the reality of postgraduate medical training. In several specialities this has led to the residency rotations only consisting of observation, thus having almost no training value. In addition, certain aspects of the curriculum do not necessarily meet the needs of a speciality or a resident specialising in a narrower medical field.

Minimum PME standards for training bases should be introduced in all the Baltic states to address this problem. Minimum standards should include the basic requirements for residents' workplace in Estonia and Latvia and better enforcement of educational outcomes in Lithuania. In addition, in Estonia, educational outcomes for each rotation should be defined and enforced.

Furthermore, the minimum standards, principles and concept of supervision should be clarified – the content of supervision should be clearly defined in legislative acts or written agreements as it can too often be haphazard, scant or insufficient and the quality varies to a wide extent from one supervisor to another.

The minimum standards of PME can help to mainstream a more coherent understanding of the learning value each resident must receive – in every residency base and every residency rotation. It would also help to reduce bias in situations where the training does not meet the resident's expectations or the standard requirements, or where the resident's performance is not considered sufficient. Minimum standards would allow the residency's organiser to identify those residency institutions or units where daily service provision outweighs the continuous development of residents' knowledge and skills. Similarly, it would be possible to detect institutions where the resident is excluded due to specialising in a field different to that of the supervisor, the complexity of cases or lack of skills and knowledge.

#### 2. Introduce a national system for updating PME programmes

In Estonia, currently the initiative and input to make changes in the programmes should come from the programme director, who then presents this to the university's committee for PME. Consequently, updating of the speciality study programmes depends on the workload and motivation of the programme directors, while the monitoring and evaluation of residency programmes is not regulated. Therefore, there is a great deal of unwarranted variance in the quality

and timeliness of the programmes. According to the information on the Faculty of Medicine's webpage, over half of the available PME specialist programme versions were last updated in 2011.<sup>15</sup>

While, in Latvia, most programmes are renewed every 6 years before accreditation, study programme managers oversee the creation and renewal of the programmes without having the requirement to engage any other stakeholders. Consequently, the renewal of the programmes heavily depends on each programme director's time resources and views about the programme.

In Lithuania, residency programme committees are in charge of updating the programmes, which must include a representative of the residents. However, in practice, some committees do not meet regularly, and residents are engaged only on paper.

Taking this into account, it is recommended that a system to ensure that all study programmes are kept up-to-date and discussed with all relevant stakeholders is developed. Setting up this system will increase the administrative burden in the beginning, although this could be dispersed, for example, by introducing checklists that would allow the programme directors to easily audit the programme, discover the shortcomings, and make it easier to follow the updates made in the programme. The system must include regular feedback from all stakeholders which would give more transparency to making changes. Moreover, currently neither internal evaluations of the programmes nor external evaluations have been made public in any of the three countries.

### 3. Focus PME on residents and introduce part-time postgraduate medical training

In all three countries, it has been expressed that the PME is not as resident-centred as it should be. It has been brought up in all three countries that residents must often get by on their own, that they are used as additional labour force, i.e. for service purposes, and that they get little if any teaching from supervisors.

Residents and recent graduates often say that the residency system is rigid. When comparing the organisation of studies with the WFME standards, the rigidity can be objectively confirmed. Part-time residency opportunities do not currently exist, although, for various reasons, many students have expressed an urgent need for such an opportunity. There are signals indicating that the possibility of studying part-time is planned to be introduced soon in Estonia. However, the envisaged plan would only address the needs of limited target groups such as parents of small children, doctoral students, and people with health problems. Moreover, study load could be no more or less than half of full-time, with the maximum duration of 11 months. Consequently, while this is a major step forward, the system would still be quite rigid. It is recommended to consider whether it is reasonable to limit the opportunity for part-time studies only for pre-defined target groups or leave room for flexibility so that it could be used in various cases (e.g. whilst participating in research work outside the doctoral studies, taking care of a relative, working as a general practitioner (including abroad), developing non-medical knowhow (e.g. leadership training, independently developing ICT skills), and also for undergoing rotations in training bases further away from home). Given these points, it is recommended that in order to make the PME more resident-centred, various part-time

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<sup>15</sup><https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>, viewed on 06 August 2018 (in Estonian)

study schemes should be allowed (e.g. one-third or two-thirds of the nominal study load) without imposing strict time limits similarly to the schemes already available for specialists.

While the above-described changes would add an administrative burden to the university organising the residency and healthcare service providers, it can help to better achieve the overall goal of the residency, i.e. to prepare a sufficient number of competent specialists for medical practice and increase the equal treatment of residents.

#### 4. Ensure transparency in residency admission

In general, the residency admission system is viewed as transparent and fair by a majority of residents and supervisors in all three countries. Nevertheless, the analysis revealed that perceptions of opacity and favouritism exist in all three countries.

According to the available information, in Estonia, opacity and subjectivity remain – in some cases persons accepted to certain specialities are determined before admission exams and extra places in residency are created especially for those people. According to the current admission system, the admission committee has the obligation to make the results known within 3 working days. While there are criteria for admission, according to one of the individual interviews and a focus group, in some specialities the committee only reveals the names of the applicants who are admitted and not the scores of all applicants<sup>16</sup>.

In Lithuania, the analysis results reflected differences in perceptions of transparency between admission procedures of residency programmes. Around one-third of residents believe that priority is given, for example, to male residents or for those whose relatives work in that field and that applicants from Vilnius University are likely to receive a significantly lower motivational interview score at the Lithuanian University of Health Sciences.

In Latvia, also around one-third of residents did not agree that the process of selecting residents is transparent and fair. However, uniform admission conditions will take effect as of 2019/2020. The uniform admission criteria are still dominated by scientific publications and scientific activity out of the total number of points to be obtained. A suggestion has been voiced to reduce the proportional importance of research work and to increase the value of previous practical experience in the admission exam.<sup>17</sup>

Therefore, it is proposed that, in all three countries, efforts should be made to ensure that all residency admissions would be transparent by providing clear assessment criteria for admission, revealing the results of the admission and providing opportunities to challenge the results and demand explanation or re-assessment by independent committee.

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<sup>16</sup> Admission results for basic medical education are made available in the Admissions Information System (SAIS). Applicants are ranked according to their received points; their application number and name (if they have agreed to disclose it) are visible in the ranking to the public at large. There is no evidence that anything similar exists in PME.

<sup>17</sup> The content of the sentence was changed in March 2019.

## 5. Ensure gender equality and develop relevant guidelines for residents and supervisors

The data showed that some women experience sexual harassment and there are also indications of sexual discrimination against women during the residency or admission process in residency in Estonia and Lithuania. In addition, there have been cases where it was stated to a female residency applicant that they were only admitted because there were no male candidates or because there were enough places for all applicants. In Lithuania, it was brought up that male residents receive more opportunities to operate compared to female residents.

Currently no gender equality and equality treatment courses have been provided to residents or supervisors during basic medical education or during residency. Therefore, the universities should develop measures in order to tackle gender stereotypes, raise awareness of gender equality and equal treatment and take measures to prevent and combat sexual harassment.

It is recommended that gender equality and equal treatment training should be provided to residents and supervisors and guidelines on how to act and where to receive support when someone experiences sexual harassment should be provided to residents and supervisors.

## 6. Make all information about residency publicly available: courses, regulations, updates, etc.

According to the analysis, different stakeholders mentioned that they lack information on different aspects of residency and its organisation in all three countries. In Estonia, residents and supervisors brought up the need for information on different free courses and training opportunities they could attend. While universities are prepared to organise (theoretical) training on topics if residents requested it, residents were not aware of this option.

Supervisors have also pointed to the same issue – that information on pedagogical/teaching courses and the time of the course should be known well in advance and that institutions should allow and encourage supervisors' regular participation in these training courses. In addition to information on courses, information about study programme updates, internal and external quality control results and other relevant documents (including speciality programmes in Latvia) should be publicly available in one place. This is to ensure that, in addition to residents, supervisors and officials, anyone who considers applying to the residency would also have all necessary information to make their decision. This would also serve the purpose of a monitoring mechanism to ensure that the residency is organised in accordance with all the regulations.

## 7. Introduce the development of soft skills into PME programmes

According to the WFME standards, residency should prepare the resident for all roles that are expected from a specialist such as teamwork, communication skills, management and ethics. All three countries are currently lacking teaching on soft skills in PME and often this is ignored completely.

In Latvia, in most speciality programmes (except for some, such as family medicine), there is currently no teaching on management skills; however, this is planned to be changed in the future.

In addition, more attention should be paid to developing communication and teamwork skills. In Estonia, a clear majority of current residency programmes do not include these aspects, although they are generally stated as educational outcomes in PME programmes. In Lithuania, the analysis of different residency programmes revealed that some soft skills, such as communication, are included into the descriptions of many residency programmes.

However, at present many clinics and departments across all the Baltic countries do not apply systematic methods for teaching soft skills and in PME programmes it is not specified how trainees should gain these skills. Thus, it is recommended that soft skills should be considered as part of the main competences of doctors that should be systematically developed and taught during residency training.

As previously mentioned, supervisors lack teaching skills in all three countries, thus acquiring knowledge about teaching skills should be part of both basic and postgraduate medical studies, since medical specialists most likely have to be supervisors to future generations of doctors. Obligatory continuous training courses on teaching should be provided to all supervisors.

## **8. Review the PME programmes according to all WFME standards**

According to the analysis, the majority of current residency programmes do not include all aspects of medical residency, based on the WFME standards (e.g. all programmes must be systematically reviewed. In addition, besides clinical knowledge, the programme also needs to provide opportunities for the systematic development of other competencies such as teamwork and communication skills or knowledge relating to management).

Therefore, it is recommended that the universities should launch a detailed analysis of the compliance of PME to all WFME standards in the form of self-review and establish a continuous quality control system.

In all three countries, this should be performed in cooperation with all necessary stakeholders, e.g. in Estonia, Tartu University, the Ministry of Social Affairs and speciality associations, also engaging residents (Estonian Junior Doctors Association) and student organisations (Estonian Medical Students' Association).

## **9. Provide all residents access to university libraries and databases**

According to the analysis, in all three countries, some residents do not have unrestricted access to the necessary literature or databases. In Estonia, access to the university library and other databases is not automatic and depends of the home institution. While it is possible to ask permission to obtain access to the best databases (e.g. PubMed, UpToDate), it is too bureaucratic and thus restricts the access of some trainees.

In Latvia, the inability to access specific databases from networks of some medical establishments, even in cases where the resident has a personal account in these databases, has been highlighted as a problem.

Therefore, it is suggested that all residents should be granted automatic access to university library and databases.

## 10. Introduce a comprehensive feedback system and make it public

According to the analysis, there is currently no comprehensive feedback system to monitor PME compliance and satisfaction with base institutions, supervisors and residents in all three countries. Therefore, it is recommended that the universities create a feedback system that would provide information about the extent to which a base institution, residents, and supervision meet the residency standards, in order to identify the bottlenecks and deficiencies and to take steps to improve the situation.

In addition to feedback to the base institutions, the current system of feedback from supervisors to residents is not working as it is formal and lacks practical content. At present, feedback given is only summative and very rarely formative. According to residents, they lack regular constructive feedback from supervisors, which leads to residents not feeling sufficiently confident and skilled to practise medicine independently. Supervisors have mentioned that even if they try to give substantive feedback, it is not considered relevant or important by programme directors, the university, and, in some cases, by the resident themselves. Therefore, the supervisors have abandoned the endeavour.

Lack of feedback is primarily related to the lack of interest in gathering it. Supervisors' low teaching skills are predominately caused by high workload or management of work hindering their opportunities to participate in the few training sessions available for supervisors. Consequently, it is important to introduce the opportunity to learn teaching skills for both supervisors and current residents and ensure that it would be seen as an important part of becoming a medical specialist.

In Lithuania and Estonia, it is proposed that senior residents could teach junior residents in certain topics, to incorporate teaching and learning into descriptions of study programmes as key competencies. However, it is important to ensure that these residents themselves have sufficient teaching skills.

In addition, feedback from residents to supervisors needs to be revised. Although residents can currently give feedback to their supervisor at the end of a residency rotation, the feedback might not always remain anonymous, which means that, for pragmatic reasons, it might be reasonable to avoid giving honest feedback or use self-censorship. Therefore, an anonymised feedback system for assessing the work of a supervisor or the department should be developed (however, the system should consider the characteristics of every PME programme to ensure that the feedback stays anonymous, for example in cases when there are only one or two residents in the speciality).

In addition, it should be considered whether it would be possible to develop a set of specific questions to receive substantive, justified and comparable feedback. This would help to ensure that the feedback is on point, more clearly elaborated and constructive rather than emotional. Such feedback would help to reduce partiality, increase supervisors' job satisfaction and motivation to take on further supervisory tasks, but also detect whose skills of supervision need to be improved.

A comprehensive feedback system should clearly define: the type of feedback for each situation (formative or summative); who provides the feedback and to whom; how it is given (including whether formally or informally); the aim and intended content; the frequency; how the data will be

analysed; how the findings and improvement proposals will be reported. These principles for the feedback system should be made publically available and easily accessible.

## 11. Introduce and implement comprehensive assessment methods

Currently, assessment of residents' skills is problematic in all the Baltic states. In Estonia, assessment is only summative and is generally in the form of a final exam. In some specialities interim examinations take place; no detailed evaluation principles, aims, methods and practices were found except for the final exam, which is explicitly explained in specialist programmes. Residents must submit residency diaries every 6 months. It is the basis of summative and formative assessment, but it does not fulfil its goals and is not comprehensive<sup>18</sup>. The assessments in Latvia are summative and cover knowledge and skills but not attitudes needed from a physician. In Lithuania, both the final assessment and in-between rotation evaluations (electronic diaries) are not organised systematically and there is a great deal of variation between different departments: the system of examination of residents is often subjective and unbalanced, and implementation is highly dependent on residency programmes.

A comprehensive assessment system should be put into place in which methods and principles should be defined and made publicly available. Assessment should be formative and summative and include all learning outcomes, including soft-skills like communication. Formative assessments in the form of appraisals should be regular and help the trainee develop clinical and professional skills outlined in the programme.

## 12. Decrease the workload of supervisors by including dedicated time for supervision into the job plans, taking up technological solutions and hiring administrative assistants

According to the analysis, there is currently a lack of medical specialists suitable for a supervisor position. Some doctors are forced to become supervisors due to a lack of medical specialists, which leads to reluctance to teach and practising supervisors are overwhelmed with work which, in turn, obstructs their ability to supervise residents.

In Lithuania, reducing the burden of bureaucracy and non-performing processes by freeing up time for teaching and learning has also been brought up as one key issue to be solved. Therefore, it is recommended to find ways to decrease supervisors' workload.

The introduction of technological solutions (e.g. replace current paper residency diaries with digital ones with easier ways to include their feedback in Estonia. Currently, it is possible to submit the diary on paper to the faculty or send to filled out text file via email, which is called an electronic diary, but there are no online systems that are available during the complete length of the residency<sup>19</sup>. Hiring administrative assistants are two options that could decrease the paperwork and bureaucracy for supervisors. In many current programmes, the residents do not feel that supervisors

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<sup>18</sup> The sentence was added in March 2019.

<sup>19</sup> The sentence was added in March 2019.

or departments/hospitals value teaching residents and thus many see it as a waste of time. Consequently, there is also a need to change the culture around teaching the next generation and to free up time in supervisors' job plans by decreasing their workload.

### 13. Introduce a mentorship system for residents

Mentorship systems for residents where each resident would be assigned a mentor for the whole residency period from the same speciality could be introduced to give regular feedback to the resident, assure they are achieving necessary competences and somewhat ease supervisors' workload. The system would ensure that regular contact with the mentor will also be maintained after a change in the training institution. Similarly, it would allow the resident to consult the mentor not only on questions pertaining to the speciality but also those concerning the doctor's profession in general throughout the residency. The mentor could also support the resident in cases where supervision in a training institution is not at an adequate level. In addition, the mentor could help to keep the resident informed about the latest research developments in his speciality.

In Latvia, in some institutions, within the framework of mentorship programme, a senior resident introduces the first-year resident to the hospital organisation and general processes. In Estonia, mentorship programmes have already been unofficially implemented in some residency specialities and, according to residents who have contacted it, it is important that the system would be voluntary and flexible, thus allowing a change mentor if the need occurs (e.g. resident and mentor do not have good contact; a resident decides to change speciality, etc.).

However, it must not be forgotten that the introduction of a mentorship scheme cannot bring a solution to the doctors' systematic insufficient time problem. On the contrary, it may aggravate it further. The mentorship programme is something that would first need training of mentors and mentees and a possible trial period in a more progressive speciality in order to assess the ease of implementation and resolve initial problems and then implement mentorship in all specialities.

### 14. Ensure that all residents acquire research skills during PME

Research is not an obligatory part of all residency programmes in Estonia and there are different views on whether research should be part of the residency or solely doctoral studies. In Latvia, writing and publishing a scientific paper is mandatory in order to graduate from residency in all speciality programmes in both universities. It has been proposed that the University of Latvia decrease the formal rigidity of scientific research by allowing residents to choose from either writing a formal research paper or publishing their research in an international journal. In Lithuania, the Rules of Residency of the Lithuanian University of Health Sciences stipulate the need to submit a final assignment in order to complete the residency studies, while at Vilnius University it depends on the specific residency programme. However, there is little support from the supervisors in either universities. In Estonia and Lithuania, some specialities have started so-called journal clubs, where different articles are presented and discussed.<sup>20</sup>

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<sup>20</sup> The text was changed in March 2019.

Nonetheless, according to the analysis, both residents and their supervisors have expressed a need for residents being taught critical assessment skills of academic literature, statistics, and basics of evidence-based medicine. Thus, teaching skills to interpret research results, especially statistics and trial designs, should be integrated into all residency programmes.

### **15. Ensure decent working conditions, including psychological support for residents**

In all three countries, shortages in residents working conditions have been detected. Residents in different countries brought up: long working hours; no time to read medical literature or guidelines during the working day; difficulties taking sick leave or unpaid leave; problems with workplaces and available computers for residents; lack of working scrubs and lab coats and access to changing rooms; limited access to hospital IT systems; low salary (Latvia and Lithuania); and a considerable amount of overtime work, which causes additional stress and might lead to mental and physical health problems.

In addition, lack of supervision and no psychological support to deal with difficult situations such as the death of a patient, are mentioned. Therefore, it is recommended that all relevant stakeholders (e.g. universities and base institutions) formulate a plan how to ensure decent working conditions for residents. In addition, provision of psychological support should, in certain cases, be established and implemented as an option for all medical employees in case of conflict or complex medical cases.

### **16. More emphasis on learning during healthcare service provision**

According to the WFME standards, PME as a form of postgraduate specialisation should focus on learning during service provision. Residents of various specialities in all three countries have indicated that, in their field, clinical work without additional learning value dominates the residency and that theoretical learning is in the background by a default assumption that the acquisition of theoretical knowledge takes place 'backstage', on top of everyday work.

Thus, it is recommended that more emphasis is put on teaching residents during service provision. This would demand that supervisors have more time to supervise, and their teaching skills and feedback from residents to supervisors have been improved.

## 4. Conclusions

The aim of the study was to analyse how PME is organised in the Baltic states (Estonia, Latvia, and Lithuania) – to identify strengths, weaknesses and opportunities to accelerate the improvement of PME. For this purpose, an assessment was conducted to evaluate to what extent PME in the Baltic states meets international standards.

The study utilised the global WFME standards for quality improvement as a framework to analyse the current situation of PME in the Baltic countries. Quantitative and qualitative methodologies were combined in order to produce a richer and more comprehensive understanding of the subject under observation. The analysis was built on the triangulation of research methods and data.

The finding shows that **practices of how to organise PME differ across Baltic countries, and across departments within institutions**. Only in case of single standards does the situation in PME in a respective country fully meet the international standard. On average, the situation in the Baltic countries could be characterised as ‘conflicting evidence that PME meets the standard’.

It was found that, although regulations regarding PME in the Baltic countries are in place, the major concerns pertain to their improper application. The renewal process of PME programmes in the Baltic countries is not regular, relies strongly on the coordinator or programme director, and does not include all relevant stakeholders. While, in general, the residency admission system is largely considered transparent and fair by residents and supervisors in all three countries, the analysis revealed that perceptions of opacity and favouritism exist in all three countries. Moreover, the planning regarding the intake of residents and the education capacity is not in balance. Another organisational aspect is the absence of a clearly formulated and implemented policy for recruiting and selecting supervisors. It was found that PME is inflexible in terms of allowing consideration of individual needs of residents (e.g. no option for part-time residency). Moreover, women experience sexual harassment and there are also indications of sexual discrimination against women during the residency or admission process in residency (in Estonia and Lithuania).

From the perspective of quality of training, it was found that the basic medical education provides a high-level understanding of basic biomedical sciences before starting PME and residents have access to up-to-date professional literature. However, **PME in the Baltic countries could be characterised as inconsistent**: the quality of supervision, balance between theory and practice, residency experience, and assessment of competencies can vary significantly between specialities, rotations, healthcare institutions and their departments. Moreover, soft skills are not considered an equally important part of medical education even though they are intended learning outcomes of training.

One of the main shortcomings of PME in the Baltic states is that residents receive little and not constant or timely appraisal and feedback. However, the practice differs across departments/programmes and it is also highly dependent on each specific supervisor. The organisation of assessment of residents is not systematic.

The PME programmes in the three Baltic countries, to some extent, offer skills of scientific reasoning and teach empirical methodology. On the other hand, the provision of this knowledge is not formalised (Estonia, Lithuania) and it seems likely that many residents are generally expected to accumulate these skills on their own with minimal external support or feedback.

Moreover, various major shortages in residents' working conditions were identified, e.g. long working hours, no protected time to read medical literature or guidelines during the working day, problems with workplaces and available computers for residents.

The following policy recommendations were proposed with an aim to improve the current medical residency system:

1. To introduce and enforce minimum PME standards, including standards for supervision;
2. To introduce a national system for updating PME programmes;
3. To focus PME on residents and introduce part-time postgraduate medical training;
4. To ensure transparency in residency admission;
5. To ensure gender equality and develop relevant guidelines for residents and supervisors;
6. To make all information about residency publicly available: courses, regulations, updates, etc.;
7. To introduce the development of soft skills into PME programmes;
8. To review the PME programmes according to all the WFME standards;
9. To provide all residents access to university libraries and databases;
10. To introduce a comprehensive feedback system and make it public;
11. To introduce and implement comprehensive assessment methods;
12. To decrease the workload of supervisors by including dedicated time for supervision into the job plans, taking up technological solutions and hiring administrative assistants;
13. To introduce a mentorship system for residents;
14. To ensure that all residents acquire research skills during PME;
15. To ensure decent working conditions, including psychological support for residents;
16. To put more emphasis on learning during healthcare service provision.

It is necessary to state that complex problems cannot be solved by a single stakeholder. The most effective solutions are born from the systematic and well-calculated cooperation between all relevant parties.

### STUDY LIMITATIONS AND FUTURE RESEARCH

There are some limitations of the study that should be acknowledged. Firstly, the analysis pertains to only part of the WFME standards, as mentioned in [Section 1.2.1](#). Therefore, several subareas are not analysed, e.g. medical school's mission, usage of information technology, interaction with health sector.

In Latvia, the researcher was not given permission to analyse study programmes for PME, which might have affected the assessment. As competitors, the two universities in Latvia regard the content of PME study programmes as intellectual property and do not provide access to the third parties. However, alternative methods such as interviews were used to gain necessary information.

Future research could focus on analysing problems in any area of process, structure, content, outcomes, competencies, assessment and learning environment of PME. For example, a detailed mapping of

barriers in the provision of meaningful assessment and feedback could be one of the major topics for future research. Other topics might be power relations in the institutional field of the health sector from the perspective of improving the quality of PME and also gender inequality to understand barriers to learning opportunities, especially for women.

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## Appendix 1. Reformulated WFME standards for the present study

### 1. Legal and organisational aspects of postgraduate medical education (B 1.1 – B 5.1)

- 1.1. The organisation of PME in the country is clearly regulated.
- 1.2. The basic principles of the organisation of PME and intended educational outcomes of the programmes are approved by all principal stakeholders.
- 1.3. The form(s) of PME and the intended educational outcomes of the programmes constitute a coherent whole with the needs of the healthcare system.
- 1.4. The trainees are selected, and programmes delivered, in accordance with principles of equality.
- 1.5. A policy is formulated and implemented on the basis of the criteria and the process for selection of trainees.
- 1.6. The intake of trainees and the education capacity are in balance, and the number of education positions is proportionate to the clinical/practical training opportunities and capacity for appropriate supervision.
- 1.7. There is a clear policy formulated and implemented for recruiting and selecting trainers, supervisors and teachers.
- 1.8. The trainees can, to a reasonable extent, choose the institution and/or its subunit in which to undergo (parts of) their training.

### 2. The quality of postgraduate medical training (B 1.1 – B 9.0)

- 2.1. The form(s) of PME ensure the training of medical doctors who are competent to undertake appropriate medical practice in the defined field of medicine and are capable of working in a professional manner.
- 2.2. The form(s) and duration of PME ensure the training of medical doctors who can work unsupervised and independently in their defined field of medicine.
- 2.3. The form(s) of PME ensure the training of medical doctors who can work within professional and interprofessional teams whenever relevant.
- 2.4. The form(s) of PME ensure the training of medical doctors who are committed and prepared for lifelong learning and participation in continuing medical education and continuing professional development.
- 2.5. The trainees have appropriate working conditions to maintain their own health.
- 2.6. The programmes are up-to-date and in accordance within the latest developments on the selected field of medicine.
- 2.7. Renewal of the programmes is systematic and takes place in cooperation with all stakeholders.
- 2.8. The framework of postgraduate medical education is built on the acquired outcomes of existing basic medical education.
- 2.9. The training relies on the intended educational outcomes of the programme and the required qualifications of the trainees.
- 2.10. The educational framework of postgraduate medical education is organised in a systematic and transparent way.
- 2.11. Appropriate instructional and learning methods are applied, and the integration of practical and theoretical components ensured throughout the course of training.

- 2.12. A trainee-centred approach is used that stimulates, prepares and supports trainees to take responsibility for their own learning process and to reflect on their own practice.
- 2.13. Gender, cultural and religious specifications are recognised by the programme provider(s) and trainees are prepared to interact appropriately.
- 2.14. The foundation and methodology of medical research, including clinical research and clinical epidemiology, are introduced in the programme.
- 2.15. The programme and process of training ensure that the trainee becomes familiar with evidence-based medicine through exposure to a broad range of relevant clinical/practical experience in different settings in the chosen field of medicine.
- 2.16. The content of the programme is adjusted to scientific developments.
- 2.17. The programme includes clinical work and relevant theory or experience of basic biomedical, clinical, behavioural and social sciences, preventive medicine, public health, medical jurisprudence, and managerial disciplines.
- 2.18. The programme includes clinical work and relevant theory or experience of clinical decision-making, medical ethics and patient safety.
- 2.19. The programme includes clinical work and relevant theory or experience of communication skills, doctors' self-care and the interface with complementary medicine.
- 2.20. The training has an apprenticeship nature of professional development, integrating training and service.
- 2.21. The PME prepares trainees for all the roles of a doctor in the health sector.
- 2.22. The trainee is exposed to a broad range of experiences, including multi-site education and adequate exposure to different aspects of the chosen field of medicine.
- 2.23. Before starting postgraduate education, the basic medical education provides a high-level understanding of the basic biomedical sciences.
- 2.24. The training process is versatile, and the trainees participate in all medical activities relevant for the education, including on-call duties, without the service components of trainee positions dominating.
- 2.25. The trainers have access to pedagogical education and tutor/supervisor training.
- 2.26. *[deleted from the analysis]*
- 2.27. There is a balance between trainers' and supervisors' seven clinical workload and training obligations, allowing sufficient time for teaching, supervision and learning.
- 2.28. Feedback from the trainee to the trainer is used in the periodic evaluation of trainers.
- 2.29. The trainees have access to up-to-date professional literature.
- 2.30. The programmes are routinely monitored and evaluated and data about key aspects of the programme are collected to ensure that the education is on track and for identifying any areas in need of intervention.
- 2.31. Concerns identified during monitoring and relevant results of evaluation are systematically addressed.
- 2.32. Feedback about programmes is collected from trainees, trainers, employers and qualified doctors and its results are used for programme development.
- 2.33. The results of course and programme evaluation are made available for principal stakeholders.
- 2.34. There are procedures for regularly reviewing and updating the process, structure, content, outcomes/competencies, assessment and learning environment of the programme.

### **3. Assessment and feedback during postgraduate medical training (B 1.3 – B 4.1)**

- 3.1. The selection process of trainees is transparent and in accordance with the formulated selection policy.
- 3.2. The intended educational outcomes of the programmes are defined with respect to achievements at a postgraduate level regarding knowledge, skills and attitudes and future roles in the health sector.
- 3.3. The intended educational outcomes of the programmes are defined with respect to generic and discipline-/speciality-specific components.
- 3.4. During postgraduate medical training, the trainee is guided by means of supervision and regular appraisal and feedback.
- 3.5. The degree of independent responsibility of the trainee is increased as skills, knowledge and experience grow.
- 3.6. The principles, purposes, methods and practices for assessment of trainees are defined, stated and published.
- 3.7. The complementary set of assessment methods and formats is used (there is a consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between different types of examinations (written and oral), the use of normative and criterion-referenced judgements, and the use of personal portfolio and log books and special types of examinations, e.g. objective structured clinical examinations (OSCE) and mini clinical evaluation exercises (MiniCEX)).
- 3.8. The assessments cover knowledge, skills and attitudes.
- 3.9. The reliability, validity and fairness of assessment methods are evaluated and documented.
- 3.10. The assessment principles, methods and practices are clearly compatible with intended educational outcomes and instructional methods and ensure adequacy and relevance of education.
- 3.11. The assessment principles, methods and practices promote trainee learning and ensure that the intended educational outcomes are met by the trainees.
- 3.12. The assessment principles, methods and practices ensure timely, specific, constructive and fair feedback to trainees based on assessment results.

### **4. The role of scientific research in postgraduate training (B 2.2 – B 6.5)**

- 4.1. The programmes and process of training ensure that the trainee becomes able to use scientific reasoning and applies the scientific basis and methods of the chosen field of medicine.
- 4.2. The training includes formal teaching on critical appraisal of the literature and scientific data.
- 4.3. The trainees are encouraged to engage in medical research and quality development of health and the healthcare system.

## Appendix 2. Web questionnaires in Estonia and in Latvia and Lithuania

### In Estonia (in Estonian)

Eesti residentuuri hindamise küsimustik

a <sup>21</sup>	b <sup>22</sup>	c <sup>23</sup>	Staatuse: a) olen resident b) värskest residentuuri lõpetanu või katkestanu c) juhendan residente
X	X	X	Sugu M N
X	X	X	Vanus
X	X	X	Staatuse
X			a) olen resident
	X		b) värskest residentuuri lõpetanu või katkestanu
		X	c) juhendan residente
X			Mitmenda aasta resident olete? 1 ... 5
	X		Mis aastal lõpetasite?
		X	Mis aastal lõpetasite arstiteaduskonna?
		X	Kui olete lõpetanud residentuuri, siis mis aastal see toimus?
X			Mis eriala omandate?
	X		Mis eriala omandasite?
		X	Mis erialal praktiseerite?
X			Kas olete läbinud residentuuritsükli mõnes välisriigis? jah ei Palun täpsustage:
	X		Kas olete läbinud mõne residentuuritsükli välisriigis? jah ei 'Jah' korral täpsustage, millises riigis ja millise kestusega:
X			Nimetage ilma abivahendeid kasutamata vähemalt 5 teie eriala residentuuriprogrammi õpiväljundit.
X	X	X	Hinnake, kuidas nõustute järgmiste väidetega:

<sup>21</sup> Questions to residents.

<sup>22</sup> Questions to residents who completed or discontinued residency between 2016–2018.

<sup>23</sup> Questions to supervisors of residents.

	X	X	Minu eriala residentuur on sisu ja kestuse poolest piisav, et valmistada ette pädevaid eriarste. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
	X	X	Residentuuriõpe on korraldatud süsteemselt, tsüklid on loogilises järjekorras. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
		X	Nimetage ilma abivahendeid kasutamata vähemalt 5 teie eriala residentuuriprogrammi õpiväljundit.
X	X	X	Arsti põhiõppes omandatavad oskused ja teadmised haakuvad minu eriala residentuuris jätkamiseks vajalike oskuste ja teadmistega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuur minu erialal on korraldatud kooskõlas minu arusaamisega sellest, kuidas põhiõppejärgne erialaõpe peaks toimuma. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentide valikuprotsess on läbipaistev ja õiglane. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuris pööratakse piisavalt tähelepanu teiste arstidega meeskonnas töötamise oskuste arendamisele. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
x	X	X	Residentuuris pööratakse piisavalt tähelepanu teiste kutsealade esindajatega (õed, ämmaemandad, tehnikud, psühholoogid) meeskonnas töötamise oskustele. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuri vältel kujundatakse süsteemselt residentide oskuseid-harjumusi, mis toetavad nende järjepidevat kutsealast enesearendamist residentuuri lõpetamise järel. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuri vältel käsitletakse piisavalt arsti autonoomsusega seonduvaid aspekte, sh arsti õigust teha informeeritud raviotsuseid, mis on patsiendi ja ühiskonna seisukohalt parimad. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuri vältel käsitletakse arsti professionaalsusega seonduvaid aspekte: oskused elukestvaks õppeks ja kompetentsuse hoidmiseks, eetiline käitumine, altruism, empaatia, kaasinimeste teenimise oskus, eetikakoodeksite järgimine, patsiendihutus. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuri praktiline koostis minu erialal sisaldab erinevaid seminare ja haigusjuhtude analüüse. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residendid saavad residentuuri vältel piisavat tagasisidet kujul, mis toetab nende arenemist professionaalseks arstiks. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residendi vastutuse määra tervishoiuteenuste osutamisel tõstetakse järk-järgult kooskõlas tema oskuste ja teadmiste suurenemisega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:

X	X	X	Residentuuriõpe on korraldatud viisil, mis hoiab residendi vaimset ja füüsilist tervist. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Residentuuri vältel pööratakse süsteemselt tähelepanu suhtlemisoskusele kolleegide, teiste tervishoiutöötajate, patsientide ja nende lähedastega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Minu eriala residentuuris on kesksel kohal teaduslik lähenemine, käsitlemist on leidnud meditsiiniline uurimistöö, sh kliiniliste uuringute ja kliinilise epidemioloogia alused. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Mul on hea ligipääs erialasele teaduskirjandusele. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Minu eriala residentuuriprogrammis on praktiline ja teoreetiline õpe ootuspärases tasakaalus. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Arstkonnas suhtutakse residentide kui täisväärtuslikku arsti. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Mulle on/olid loodud eeldused, et tegeleda residentuuris erialase teadustööga mulle huvipakkuval teemal. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Olen residentuuri vältel saanud õpet/juhendamist erialase teaduskirjanduse ja erialaste andmetike kriitiliseks hindamiseks. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Olen residentuuri vältel saanud õpet/juhendamist kliiniliste otsuste tegemiseks. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Mind on residentuuri vältel juhendatud ennetama ja lahendama kommunikatsiooniprobleeme või (potentsiaalselt) konflikteid olukordi, mis tulenevad soolistest, kultuurilistest või religioossetest eripäradest. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Residentuuris kasutatavad juhendamise meetodid vastavad täielikult minu ootustele. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Residentuuris kasutatavad teoreetilised ja praktilised õpimeetodid vastavad täielikult minu ootustele. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Residentuur on korraldatud viisil, mis arvestab minu individuaalsete soovide ja vajadustega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Patsiendid on kogu residentuuri vältel suhtunud minusse kui täisväärtuslikku arsti. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:

X	X		Ma ei ole residentuuri vältel kokku puutunud olukorraga, kus mind või kaasresidente koheldakse tööandja või juhendajate poolt ebavõrdselt või rikutakse muul viisil minu või teiste õiguseid. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Residentuuri baasasutused on juhendamise kvaliteedi taseme poolest ühtlased. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Minu ja kaasresidentide teadmiste, oskuste ja hoiakute hindamine on toimunud õiglaselt, läbipaistvalt ja kooskõlas kavandatud õpitulemuste ja rakendatud juhendamismeetoditega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Mul on nii residentuuri eel kui ka ajal olnud ligipääs pädevale nõustamisele karjääri planeerimiseks või seotuna läbipõlemisega või juhendajate-kolleegidega tekkinud põhimõtteliste eriarvamustega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X		Residentuurijuhendajatel on/oli minu jaoks alati piisavalt aega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
		X	Lähtun juhendamisel residentuuriprogrammis sõnastatud õpitulemustest ja oodatavatest oskustest. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
		X	Minu töö on korraldatud viisil, mis võimaldab tegeleda piisaval määral nii residentide juhendamise, tervishoiuteenuste osutamise ning ka uute teadmiste omandamisega. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
		X	Olen saanud piisavas määras õpetamisalast täiendõpet, mis võimaldab mul olla juhendajana tasemel. ei nõustu – pigem ei nõustu – raske öelda – pigem nõustun – nõustun täielikult Täpsustage hinnangut:
X	X	X	Kas eespool toodud küsimused käsitlesid teie silmis piisaval määral residentuuriga seotud olulisemaid küsimusi? ei jah Palun täpsustage:
X	X	X	Iseloomustage palun 3-5 lausega kokkuvõtvalt tänast Eesti residentuuri.

## In Latvia and Lithuania (in English)

Postgraduate Medical Education in Latvia – Assessment Survey / Postgraduate Medical Education in Lithuania – Assessment Survey

a <sup>24</sup>	b <sup>25</sup>	c <sup>26</sup>	Status: a) I am resident b) I have completed or discontinued residency between 2016–2018 c) I am supervisor of residents
X	X	X	Gender Male Female
X	X	X	Age
X	X	X	Status
X			a) I am resident
	X		b) I have completed or discontinued residency between 2016–2018
		X	c) I am supervisor of residents
X	X		University <sup>27</sup> Latvian University Riga Stradiņš Other
	X	X	What year did you complete postgraduate medical education? (original free form text)
X			Which year resident you are? 1 ... 5
X			What is your specialty? (original free form text)
	X	X	What is your chosen field of medicine?
X	X	X	Have you passed a part of your training in a foreign country? Yes No If yes, please specify the country and duration:
X	X	X	Please indicate how strongly you agree or disagree with the following statements and specify the assessment for each statement <b>regarding your residency program</b> .
	X	X	The overall structure, composition and duration of the programme on my specialty is sufficient to prepare competent specialists. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
	X	X	Residency is organized systematically; study cycles are in a logical sequence. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:

<sup>24</sup> Questions to residents.

<sup>25</sup> Questions to residents who completed or discontinued residency between 2016–2018.

<sup>26</sup> Questions to supervisors of residents.

<sup>27</sup> Asked only in Latvia.

X	X	X	The skills and knowledge acquired during basic education of medical doctors are relevant to the skills and knowledge necessary to continue postgraduate medical training on my specialty. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	The postgraduate medical training on my specialty is organized in line with my understanding how postgraduate medical training should be provided. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	The process of selecting trainees is transparent and fair. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training sufficient attention is paid developing skills that support working in a team with colleagues. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training sufficient attention is paid developing skills that support working in a team with other health professions (nurses, midwives, technicians, psychologists). strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training the trainees are prepared to life-long learning and participation in continuing medical education/ continuing professional development. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training professional autonomy of doctors is fostered necessary to enable the doctor to act in the best interests of the patient and the community. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training, the aspects related to the professionalism of the doctor are addressed: skills of lifelong learning and maintenance of competencies, ethical behaviour, altruism, empathy, service to others, adherence to professional codes, consideration of patient safety. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	Practical training in my specialty includes various seminars and case-study analyses. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	The trainees are guided by means of supervision, regular appraisal and feedback that supports their development to a professional doctor. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	The degree of independent responsibility of the trainees is increased gradually as skills, knowledge and experience grow. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	The trainees have appropriate working conditions to maintain their own mental and physical health. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	During postgraduate medical training, systematic attention is paid to developing skills to communicate with colleagues, other healthcare professionals, patients and their relatives. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:

X	X	X	Throughout postgraduate medical training, trainees achieve knowledge of and ability to apply the scientific basis and methods on chosen field of medicine; the foundation and methodology of medical research on chosen field of medicine, including clinical research and clinical epidemiology are introduced. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	Trainees have access to up-to-date professional literature. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	There is a fine balance between educational, research and service functions in postgraduate medical training on my chosen field of medicine. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The trainees are encouraged to engage in medical research on a topic of their choice. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The programme in my chosen field of medicine includes formal teaching on critical appraisal of the literature and scientific data. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The programme in my chosen field of medicine includes clinical work and relevant theory or experience of clinical decision-making. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The trainees are prepared to recognise gender, cultural and religious specifications and to interact appropriately. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		Supervisors use instructional and learning methods that are appropriate and ensure integration of practical and theoretical components. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		Residency is organized in a way that takes into account my individual preferences and needs. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		During residency me and co-residents are treated equally and our rights have not been violated. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The quality of supervision is homogeneous across the training centres. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		The trainees have access to competent counselling and support on need for career guidance and planning, in case of a professional crisis or in solving problematic trainee situations. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X		My supervisors have/had time for teaching and supervision. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:

		X	The learning outcomes and expected skills outlined in the residency program serve as basis on supervising and training the residents. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
		X	My clinical work load is organized in a way that ensures also time for teaching, supervision and learning. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
		X	I have been trained to be a supervisor in my chosen field of medicine. strongly disagree – disagree – neither agree nor disagree – agree – strongly agree Please specify your assessment:
X	X	X	Did the questions above address the most important issues related to residency in Latvia / Lithuania? No Yes Please specify:
X	X	X	Please give us general assessment (3–5 sentences) on current situation of postgraduate medical education in Latvia / Lithuania.

## Appendix 3. Examples of Postgraduate Medical Education in selected European countries

### FINLAND

The basic medical training in Finland lasts for a minimum of six and a half years, after which the degree of Licentiate of Medicine is awarded<sup>28</sup>, entitling the graduates to work while receiving guidance and supervision by a fully qualified specialist (Mikkola, Suutala, & Parviainen, 2018). To receive full qualification as a general practitioner, granted by the National Authority for Medicolegal Affairs, graduates must undergo additional training in primary healthcare (Mikkola et al., 2018). To become a licensed medical specialist, one has to take part in continuing education; specialising physicians (i.e., physicians in training) complete further medical studies and undertake 5-6 years of workplace learning as residents (Mikkola et al., 2018).

There are 50 specialities available in PME in Finland (Parviainen, Halava, Leinonen, Kosunen, & Rannisto, 2018). The degree of a medical specialist may be awarded by the Faculties of Medicine at the universities of Helsinki, Eastern Finland, Oulu, Tampere and Turku. The prerequisite for specialist training is a licence to practice medicine in Finland (Finnish Medical Association, 2018). The duration of the specialist training is 5-6 years and principally consists of clinical practice in the speciality.<sup>29</sup> Theoretical training takes place in multiple institutions, including universities and hospitals (European Junior Doctors Association, 2018). The Finnish PME is built on a traditional time-based model (Niemi-Murola, 2018), that has been described by Hodges (2010) as “a “tea-steeping” model, in which the student “steeps” in an educational programme for a historically determined fixed time period to become a successful practitioner.”

The main bottlenecks in the Finnish PME are its duration and its pedagogical underpinnings. Although the length of specialist education is set to be 5-6 years, in practice, it takes approximately 10 years to qualify. This is due to a lack of coordination between the universities and the training sites (hospitals). Because of the high numbers of residents, the residents face difficulties in finding placements and, if failing to secure one, may need to defer. The lack of pedagogical competencies in supervisors creates complications in collecting and giving feedback to and from residents. (European Junior Doctors Association, 2018), which reduces the educational value of PME.

One of the positive sides of PME in Finland is changing specialities – which is considered easy to do. Furthermore, the legal responsibility is shared between the resident and supervisor (European Junior Doctors Association, 2018), which encourages independence in residents. Currently, a new competency-based curriculum is under development (Niemi-Murola, 2018).<sup>30</sup>

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<sup>28</sup> Finnish Medical Association. Medical education. Available: <https://www.laakariliitto.fi/en/medical-education/>

<sup>29</sup> Sosiaali- ja terveystieteiden ministeriön asetuserikoislääkäri- ja erikoishammaslääkärikoulutuksesta sekä yleislääketieteen erityiskoulutuksesta. Available: <https://www.finlex.fi/fi/laki/alkup/2015/20150056>

<sup>30</sup> Competency-based medical education (CBME) has become a dominant approach to PME in many countries. CBME can be characterised as having two distinct features: a focus on specific domains of competence, and a relative independence of time in training, making it an individualised approach that is particularly applicable in workplace training. It is not the length of training that determines a person's readiness for unsupervised practice, but the attained competence or competencies. (ten Cate, 2017)

## SWEDEN

In Sweden, medical education and training are organised in three phases: undergraduate education, pre-registration training (internship) and specialist training. The basic undergraduate medical education lasts five and a half years and is followed by a compulsory internship<sup>31</sup>. Thereafter, the graduate's knowledge and skills are assessed by senior colleagues along with a written examination organised by the universities. After successful completion, the National Board of Health and Welfare issues a licence to practice medicine which also gives the newly qualified doctor the right to apply for a post in specialist training<sup>32</sup>.

The duration of specialist training programmes is a minimum of 5 years and is carried out in a salaried position with medical responsibility<sup>33</sup>. It involves about 4 years of clinical work in the speciality and 6-18 months in adjacent specialities. The postgraduate specialist training is carried out under academic and clinical guidance at Swedish university hospital clinics<sup>34</sup> and theoretical training takes place in multiple institutions. Additionally, the legal responsibility is shared between the resident and the supervisor (European Junior Doctors Association, 2018).

Each resident has an individual training programme, specifying the required practical training in various departments together with additional theoretical education<sup>35</sup>. The training programme is designed considering the individual needs of the doctor, which may vary according to speciality<sup>36</sup>. They are also entitled to have a personal tutor, a recognised specialist, who will give professional guidance during the specialist training (Frydén, Ponzer, Heikkilä, Kihlström & Nordquist, 2015).

PME in Sweden is built up on competencies and a time-based model, which means clinical skill and theoretical knowledge are evaluated continually through the period of specialisation. Residents are not required to take a formal final examination before being granted the qualification as a specialist. However, some specialist societies have introduced voluntary examinations<sup>37</sup>.

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<sup>31</sup> Uppsala Universitet. Läkarpogrammet 2019/2020. Available: <http://www.uu.se/utbildning/utbildningar/selma/program/?pKod=MME2Y>

<sup>32</sup> Socialstyrelsen. (2017). Vägen till legitimation. Available: <https://legitimation.socialstyrelsen.se/sv/utbildad-i-sverige/lakare>

<sup>33</sup> Socialstyrelsens föreskrifter och allmänna råd (SOSFS 2015:8) om läkarnas specialiseringstjänstgöring. Available: <http://www.socialstyrelsen.se/sosfs/2015-8>

<sup>34</sup> Swedish Healthcare. Medical residency and fellowship programmes. <https://www.swedishhealthcare.se/medical-postgraduate-programs/>

<sup>35</sup> Socialstyrelsens föreskrifter och allmänna råd (SOSFS 2015:8) om läkarnas specialiseringstjänstgöring. Available: <http://www.socialstyrelsen.se/sosfs/2015-8>

<sup>36</sup> Swedish HealthCare. Medical residency and fellowship programmes. Available: <https://www.swedishhealthcare.se/medical-postgraduate-programs/>

<sup>37</sup> Socialstyrelsens föreskrifter och allmänna råd (SOSFS 2015:8) om läkarnas specialiseringstjänstgöring. Available: <http://www.socialstyrelsen.se/sosfs/2015-8>

The national speciality curriculum authority is the National Board of Health and Welfare, which receives assistance from various specialist societies (within the Swedish Medical Association and the Swedish Society of Medicine) in establishing the official descriptions and content of the specialities. The Swedish Medical Association, in cooperation with the Swedish Society of Medicine, runs a programme to review and evaluate the quality of training in different departments, although participation is voluntary (Bexelius et al., 2016).

### THE UNITED KINGDOM<sup>38</sup>

In the United Kingdom, basic medical education graduates must first work as junior doctors in an internship for 1-2 years or complete the first year of residency training before full medical registration is obtained. Where needed, locum posts are offered to cover a temporary gap in the speciality training programme. These positions can be filled by all registered doctors that have completed the foundation programme<sup>39</sup>.

The admission to the PME is obtained through an open, competitive selection, and all students with a full registration as a licensed physician can apply for specialist training. Programmes last 3-8 years and have two different types of specialist training: the 'run-through' training, where the resident progresses to the next level automatically when all the required competences are satisfactorily achieved, and the 'uncoupled' training, that consists of 2-3 years of core training after which residents must go through another round of open competition in order to apply for a higher speciality training post. The General Medical Council (GMC) is responsible for setting standards of PME and training, which are stated in the 'Good Medical Practice' guidance.

PME is competency-based, with all speciality training programmes defining standards of knowledge, skills and behaviours. Competency progression assessment is achieved through formative assessment in the form of supervised learning events, summative assessments of performance and examinations, and triangulated judgement by the educational supervisor. Satisfactory completion of a speciality training programme is awarded with a Certificate of Completion of Training (CCT), which enables entry to the specialist registers.

### THE NETHERLANDS<sup>40</sup>

Postgraduate medical training in the Netherlands has become increasingly individualised: for example, residencies can start and conclude at various times throughout the year and residency positions can be filled from an existing pool of graduates whenever they are vacant (Hoff, Frenkel, Imhof, & ten Cate, 2018). In the Netherlands, full medical registration is granted upon graduation from medical school. The final year in most schools is a transitional year, in which students complete an internship with increasing responsibilities, approximating the settings awaiting a starting resident. This is to ease the transition from undergraduate to graduate medical education. After graduation, junior doctors can opt to work as a resident-not-in-training to gain more work experience.

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<sup>38</sup> Based on the article by Weggemans, van Dijk, van Dooijeweert, Veenendaal and ten Cate (2017) if not cited otherwise.

<sup>39</sup> The foundation programme is a 2-year generic training programme which is intended to equip doctors with the generic skills and professional capabilities to progress to speciality training.

<sup>40</sup> Based on the article by Weggemans et al. (2017) if not cited otherwise.

Admission to PME is organised through an open and competitive selection. All graduates can apply, with no fixed amount of clinical experience needed. However, since competition is high, applicants with more clinical experience, research experience or a PhD degree have an advantage.

The College of Medical Specialists (*College Geneeskundige Specialismen*) is responsible for PME and the registration of medical specialists in the Netherlands. Most PME programmes last 4-6 years, with only General Practice training lasting 3 years. Many programmes include placements in both university medical centres as well as regional hospitals. Several specialities require basic core training before starting a (sub)speciality training.

The assessment in the PME is based on competencies. All residents have an individual training plan developed in cooperation with the head of the training programme. This is based on competencies that have already been obtained before the start of speciality training. The resident works on a portfolio in which the progression in all competency domains is documented, and which forms the basis for progress evaluations.

## GERMANY

In Germany, full registration is granted upon graduation from medical school, but passing extensive medical licensing examinations is a necessary component for full registration as a licensed physician and licensure (Weggemans et al., 2017). Training positions are not allocated, so residents need to find and apply for positions on the labour market independently (van den Bussche, Krause-Solberg, Scherer, Ziegler, 2017). Thus, admission to a speciality training programme is obtained through an open, competitive selection and all students who have been granted a full registration can apply for postgraduate training (Weggemans et al., 2017).

PME in Germany is fragmented. For historical reasons each of Germany's 15 states has its own board responsible for overseeing and regulating the training of physicians (Cranston et al., 2013). PME lasts 5-6 years (Weggemans et al., 2017) and it is not attached to academic centres. Rather, it is primarily provided by hospitals. Often the need for getting the work done has a higher priority than the need for supervised education (Chenot et al., 2016). Therefore, the structure of the courses is almost entirely reliant on work-based learning without formal taught courses.

General practice training in Germany lasts for 5 years, of which 3 are dedicated to internal medicine in a hospital and 2 of which on general practice (Weggemans et al., 2017). In internal medicine, PME structure requires a 3-year common trunk in general internal medicine for those who wish to become subspecialists, with three additional years of subspeciality training (Cranston et al., 2013).

A recent study identified several shortcomings of PME in Germany (van den Bussche et al., 2017):

- Both the practical and the theoretical components of PME are insufficient.
- There is no set curriculum with defined learning objectives and descriptions of the corresponding educational settings. In fact, the act of learning is identical to daily clinical work.
- The work process is not structured for learning; for example, documentation procedures and feedback discussions have been suggested but largely omitted.
- Evidence-based medicine is not a core part of the training, nor is the evaluation of residents' progress.

- The summative final oral examination assumes that the necessary specialist competencies can be comprehensively evaluated within 30 minutes.
- Many factors indicate that female doctors, especially those with children, have fewer learning opportunities than male doctors.

It is concluded that the quality of postgraduate medical education in Germany has become inadequate, especially in an international comparison ([van den Bussche et al., 2017](#)).

To conclude, there is some variation in the PME in Europe. The position of internship (in whatever form) differs between countries, as some have it embedded into basic medical training and for others it is a separate step after finishing training. The United Kingdom and the Netherlands have implemented competency-based assessment while PME in Germany has very few formally taught courses and assessments and generally consists of clinical work in independent hospitals.

## Appendix 4. Comparison of Raw Ratings and z-Scores

TABLE. COMPARISON OF NUMERICAL RATINGS (RAW SCORES AND Z-SCORES)

Standards	Raw rating			z-score		
	EE	LV	LT	EE	LV	LT
<b>1. Legal &amp; organisational aspects</b>						
1.1. The organisation of PME in the country is clearly regulated.	3	2	3	1.33	-0.13	1.31
1.2. The basic principles of the organisation of PME and intended educational outcomes of the programmes are approved by all principal stakeholders.	2	2	2	0.17	-0.13	-0.02
1.3. The form(s) of PME and the intended educational outcomes of the programmes constitute a coherent whole with the needs of the healthcare system.	2	2	2	0.17	-0.13	-0.02
1.4. The trainees are selected, and programmes delivered, in accordance with principles of equality.	1	2	3	-0.99	-0.13	1.31
1.5. A policy is formulated and implemented on the basis of the criteria and the process for selection of trainees.	3	4	3	1.33	1.96	1.31
1.6. The intake of trainees and the education capacity are in balance, and the number of education positions is proportionate to the clinical/practical training opportunities and capacity for appropriate supervision.	2	2	2	0.17	-0.13	-0.02
1.7. There is a clear policy formulated and implemented for recruiting and selecting trainers, supervisors and teachers.	1	0	2	-0.99	-2.23	-0.02
1.8. The trainees can, to a reasonable extent, choose the institution and/or its subunit in which to undergo (parts of) their training.	3	4	2	1.33	1.96	-0.02
<b>2. The quality of training</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>
2.1. The form(s) of PME ensure the training of medical doctors who are competent to undertake appropriate medical practice in the defined field of medicine and are capable of working in a professional manner.	2	3	2	0.17	0.92	-0.02
2.2. The form(s) and duration of PME ensure the training of medical doctors who can work unsupervised and independently in their defined field of medicine.	3	2	2	1.33	-0.13	-0.02
2.3. The form(s) of PME ensure the training of medical doctors who can work within professional and interprofessional teams whenever relevant.	2	2	2	0.17	-0.13	-0.02
2.4. The form(s) of PME ensure the training of medical doctors who are committed and prepared for lifelong learning and participation in continuing medical education and continuing professional development.	2	2	3	0.17	-0.13	1.31
2.5. The trainees have appropriate working conditions to maintain their own health.	2	1	2	0.17	-1.18	-0.02
2.6. The programmes are up-to-date and in accordance within the latest developments on the selected field of medicine.	2	3	2	0.17	0.92	-0.02

2.7. Renewal of the programmes is systematic and takes place in cooperation with all stakeholders.	2	1	2		0.17	-1.18	-0.02
2.8. The framework of postgraduate medical education is built on the acquired outcomes of existing basic medical education.	3	3	3		1.33	0.92	1.31
2.9. The training relies on the intended educational outcomes of the programme and the required qualifications of the trainees.	2	2	1		0.17	-0.13	-1.36
2.10. The educational framework of postgraduate medical education is organised in a systematic and transparent way.	2	2	2		0.17	-0.13	-0.02
2.11. Appropriate instructional and learning methods are applied, and the integration of practical and theoretical components ensured throughout the course of training.	2	2	2		0.17	-0.13	-0.02
2.12. A trainee-centred approach is used that stimulates, prepares and supports trainees to take responsibility for their own learning process and to reflect on their own practice.	1	1	1		-0.99	-1.18	-1.36
2.13. Gender, cultural and religious specifications are recognised by the programme provider(s) and trainees are prepared to interact appropriately.	2	2	1		0.17	-0.13	-1.36
2.14. The foundation and methodology of medical research, including clinical research and clinical epidemiology, are introduced in the programme.	2	2	2		0.17	-0.13	-0.02
2.15. The programme and process of training ensure that the trainee becomes familiar with evidence-based medicine through exposure to a broad range of relevant clinical/practical experience in different settings in the chosen field of medicine.	3	3	3		1.33	0.92	1.31
2.16. The content of the programme is adjusted to scientific developments.	1	4	2		-0.99	1.96	-0.02
2.17. The programme includes clinical work and relevant theory or experience of basic biomedical, clinical, behavioural and social sciences, preventive medicine, public health, medical jurisprudence, and managerial disciplines.	2	2	2		0.17	-0.13	-0.02
2.18. The programme includes clinical work and relevant theory or experience of clinical decision-making, medical ethics and patient safety.	2	3	2		0.17	0.92	-0.02
2.19. The programme includes clinical work and relevant theory or experience of communication skills, doctors' self-care and the interface with complementary medicine.	1	2	2		-0.99	-0.13	-0.02
2.20. The training has an apprenticeship nature of professional development, integrating training and service.	2	2	2		0.17	-0.13	-0.02
2.21. The PME prepares trainees for all the roles of a doctor in the health sector.	2	3	2		0.17	0.92	-0.02

2.22. The trainee is exposed to a broad range of experiences, including multi-site education and adequate exposure to different aspects of the chosen field of medicine.	3	3	3		1.33	0.92	1.31
2.23. Before starting postgraduate education, the basic medical education provides a high-level understanding of the basic biomedical sciences.	3	4	3		1.33	1.96	1.31
2.24. The training process is versatile, and the trainees participate in all medical activities relevant for the education, including on-call duties, without the service components of trainee positions dominating.	3	1	2		1.33	-1.18	-0.02
2.25. The trainers have access to pedagogical education and tutor/supervisor training.	1	1	1		-0.99	-1.18	-1.36
2.27. There is a balance between trainers' and supervisors' seven clinical workload and training obligations, allowing sufficient time for teaching, supervision and learning.	2	1	1		0.17	-1.18	-1.36
2.28. Feedback from the trainee to the trainer is used in the periodic evaluation of trainers.	1	1	1		-0.99	-1.18	-1.36
2.29. The trainees have access to up-to-date professional literature.	3	3	4		1.33	0.92	2.64
2.30. The programmes are routinely monitored and evaluated and data about key aspects of the programme are collected to ensure that the education is on track and for identifying any areas in need of intervention.	1	2	2		-0.99	-0.13	-0.02
2.31. Concerns identified during monitoring and relevant results of evaluation are systematically addressed.	1	4	1		-0.99	1.96	-1.36
2.32. Feedback about programmes is collected from trainees, trainers, employers and qualified doctors and its results are used for programme development.	0	2	0		-2.15	-0.13	-2.69
2.33. The results of course and programme evaluation are made available for principal stakeholders.	1	2	1		-0.99	-0.13	-1.36
2.34. There are procedures for regularly reviewing and updating the process, structure, content, outcomes/competencies, assessment and learning environment of the programme.	1	2	2		-0.99	-0.13	-0.02
<b>3. Assessment and feedback during training</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>		<b>EE</b>	<b>LV</b>	<b>LT</b>
3.1. The selection process of trainees is transparent and in accordance with the formulated selection policy.	3	3	2		1.33	0.92	-0.02
3.2. The intended educational outcomes of the programmes are defined with respect to achievements at a postgraduate level regarding knowledge, skills and attitudes and future roles in the health sector.	2	3	2		0.17	0.92	-0.02
3.3. The intended educational outcomes of the programmes are defined with respect to generic and discipline-/speciality-specific components.	4	3	3		2.49	0.92	1.31
3.4. During postgraduate medical training, the trainee is guided by means of supervision and regular appraisal and feedback.	1	2	2		-0.99	-0.13	-0.02

3.5. The degree of independent responsibility of the trainee is increased as skills, knowledge and experience grow.	2	2	2		0.17	-0.13	-0.02
3.6. The principles, purposes, methods and practices for assessment of trainees are defined, stated and published.	1	1	2		-0.99	-1.18	-0.02
3.7. The complementary set of assessment methods and formats is used (there is a consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between different types of examinations (written and oral), the use of normative and criterion-referenced judgements, and the use of personal portfolio and log books and special types of examinations, e.g. objective structured clinical examinations (OSCE) and mini clinical evaluation exercises (MiniCEX)).	1	1	2		-0.99	-1.18	-0.02
3.8. The assessments cover knowledge, skills and attitudes.	1	2	2		-0.99	-0.13	-0.02
3.9. The reliability, validity and fairness of assessment methods are evaluated and documented.	0	0	0		-2.15	-2.23	-2.69
3.10. The assessment principles, methods and practices are clearly compatible with intended educational outcomes and instructional methods and ensure adequacy and relevance of education.	1	2	2		-0.99	-0.13	-0.02
3.11. The assessment principles, methods and practices promote trainee learning and ensure that the intended educational outcomes are met by the trainees.	1	1	2		-0.99	-1.18	-0.02
3.12. The assessment principles, methods and practices ensure timely, specific, constructive and fair feedback to trainees based on assessment results.	1	1	2		-0.99	-1.18	-0.02
<b>4. The role of scientific research in postgraduate training</b>	<b>EE</b>	<b>LV</b>	<b>LT</b>		<b>EE</b>	<b>LV</b>	<b>LT</b>
4.1. The programmes and process of training ensure that the trainee becomes able to use scientific reasoning and applies the scientific basis and methods of the chosen field of medicine.	3	3	3		1.33	0.92	1.31
4.2. The training includes formal teaching on critical appraisal of the literature and scientific data.	2	2	2		0.17	-0.13	-0.02
4.3. The trainees are encouraged to engage in medical research and quality development of health and the healthcare system.	2	2	3		0.17	-0.13	1.31

## Appendix 5. Compliance of PME with WFME International Standards in Estonia, Latvia, and Lithuania<sup>41</sup>

### 1. Legal and organisational aspects of postgraduate medical education

#### 1.1. The organisation of PME in the country is clearly regulated

##### Estonia

Rating: 3 / 1.33

There are two main bodies that shape the organisation of PME in Estonia: The University of Tartu is the institution that organises PME and provides theoretical courses, while the Estonian Ministry of Social Affairs is the government body responsible for the funding of medical residency, workforce planning and its legal framework development through multilateral negotiations. Additionally, speciality associations are involved in the development of respective curricula<sup>42</sup>. PME consists of work-based training in healthcare institutions and theoretical education. Throughout the residency, residents are in a contractual relationship with their training base and participating in the provision of healthcare services. The residents have an opportunity, to a reasonable extent, to choose their training base from a list stated in the speciality programme.

The Organisation of PME is clearly regulated via the following legislation: University of Tartu Act<sup>43</sup> §7; RT I 1995, 23, 333, Entry into force 01.01.2017, RT I, 20.17 2016, 5; The Act of Minister of Social Affairs No. 56 of 04.06.2001 "Framework requirements of residency and procedures for conducting residency"<sup>44</sup>. The Act entered into force 03.02.2017, RT I, 31.01,2017, 28; University of Tartu Senate's Act No. 2 "Regulations of Residency"<sup>45</sup>. Entry into force 26.05.2017.

While the organisation of PME is clearly regulated in legislation, in practice there are several shortcomings, e.g. lack of minimum standards for training bases and definition of the content of supervision.

##### Latvia

Rating: 2 / -0.3

Medical Treatment Law<sup>46</sup>, Section 1, subsection 19 defines "residency - education of a doctor who has employment legal relations with a healthcare institution implementing an educational programme, for the acquisition of a speciality in the official state language in accordance with an accredited professional

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<sup>41</sup> The words 'resident' and 'trainee' are used in this appendix interchangeably.

<sup>42</sup> Praxis (2013). Ülevaade arstlike erialade arengukavadest. Lk 40. Tallinn: Poliitikauuringute Keskus Praxis. Available: [http://www.praxis.ee/wp-content/uploads/2015/03/Arengukavade\\_%C3%BClevaade.pdf](http://www.praxis.ee/wp-content/uploads/2015/03/Arengukavade_%C3%BClevaade.pdf)

<sup>43</sup> <https://www.riigiteataja.ee/en/eli/528122016001/consolide>

<sup>44</sup> <https://www.riigiteataja.ee/akt/131012017028>

<sup>45</sup> <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>46</sup> Entry into force: 01.01.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=44108>

residency educational programme in medicine;” Cabinet of Ministers Regulations No. 685 of August 30, 2011 “Regulations on admission and distribution of residents and financing of residency”<sup>47</sup>, Article 11 brings universities into the organisational framework of residency and quite clearly defines the responsibilities of universities organising PME in Latvia. Furthermore, Cabinet of Ministers Regulations No. 685 also requires that the universities have contracts with hospitals where the everyday practical carrying out of residency is ensured, regulating that the contracts state names of supervisors and doctors responsible for organising residency in each speciality in each hospital, as well as the procedure for submitting evaluation forms of residents and supervisors to the university. However, stakeholders express that parts of the regulatory documents should be updated to make the organising of residency more clear, transparent and easy for all parties involved. For example, the financing of residency in Cabinet of Ministers Regulations No. 685 could be made more transparent by defining how expenses for residents' theoretical and practical learning can be spent. There are possibilities to improve the regulatory documents on a newer aspect of PME – residency funded by physical persons or legal entities. Some requirements that do not work in practice, such as the evaluation forms, should be changed. Lastly, Cabinet of Ministers Regulations No. 268 of March 24, 2009 “Regulations regarding competency in medical treatment and volume of theoretical and practical knowledge for medical practitioners and students acquiring first or second level professional higher medical education programmes”<sup>48</sup> should be updated to improve the content of speciality study programmes.

### Lithuania

Rating: 3 / 1.31

According to the “Ruling on doctors' training”, a medical residency is considered to be a higher degree of medical education, during which a resident is both studying and working within the limits of his/her legal ability. Because of this, the principal stakeholders involved in the process of postgraduate medical training include the Ministry of Health, the Ministry of Education and two universities – the Lithuanian University of Health Sciences and Vilnius University. The Ministry of Health predicts the future demand for doctors of different specialities and provides their suggestions to the Ministry of Education on a yearly basis. The universities, together with the Ministry of Health, decide upon the requirements for application for a specific residency programme. The universities define and agree on the common specifications for all residencies (“Regulations of Residency”), in addition, specific details are added in every programme (decided upon by university-appointed residency committees (commissions)). The universities implement these documents by appointing coordinators of residency programmes, who are responsible for each residency programme. There is a body (Centre for Assessment of Study Quality) designated to accredit the residency programmes.

Unfortunately, the situation described in the aforementioned documents often does not reflect the reality, as the implementation of the documents depends on each specific committee and coordinator, who often interpret the recommendations differently. As one resident summed up, “It’s chaotic and does little to prepare me as a surgeon. On paper it may look good, but it is far from reality.”

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<sup>47</sup> Entry into force 20.04.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=235421>

<sup>48</sup> Entry into force: 29.06.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

## 1.2. The basic principles of organisation of PME and intended educational outcomes of the programmes are approved by all principal stakeholders

### Estonia

Rating: 2 / 0.17

Legislatively, all smaller changes to the programmes must be approved by the council of the Faculty of Medicine, and major changes by the university's senate. University of Tartu Act<sup>49</sup> §2 section 3 stipulates that "University senate is up to twenty-one members elected by the university, and at least one fifth of them are students." The council of the Faculty of Medicine has five student representatives and one residents' representative<sup>50</sup>. This means that, technically, student representatives are involved in decision-making e.g. Tartu University senate has five student representatives, of whom two represent the Faculty of Medicine<sup>51</sup>. Although junior doctors do not have student status, the residents can approach them to communicate concerns.

The current programmes state, in general, all principles of organisation and intended educational outcomes. However, there are significant problems with the organisation of individual residency rotations, which do not have stated outcomes and therefore often trainees and supervisors have no idea as to what competences the residents should achieve during their time in the department.

In the Ministry of Social Affairs' and the University of Tartu's residency committees, which provide the input for changes, the representatives of all principal stakeholders are included. However, this does not ensure the involvement of all stakeholders in the organisation and alteration of PME programmes. From qualitative data, it was found that there are communication problems between the stakeholders, which raises tensions. For example, the multilateral communication between the ministry, university and junior doctors takes place only once a year and often it is more dependent on bilateral talks. Currently, there is also no evidence that the systematic evaluation of programmes takes place, yet alone with the involvement of principal stakeholders. There is also no exhaustive information on how much the opinion and expertise of junior doctors are taken into consideration.

### Latvia

Rating: 2 / -0.3

From the interviews with the stakeholders, some tension regarding the responsibilities in organisation and carrying out of residency is visible because of the divide between the two separate sides involved in organising and carrying out residency – universities and hospitals.

The universities are the formal organisers of the residents' education and hospitals carry it out in practice. From the interviews with stakeholders, this results in frustration on the universities' side because of the universities' inability to accurately evaluate the quality of the practical studies and seminars, impact the motivation of supervisors and enforce the removal of a supervisor. On the

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<sup>49</sup> <https://www.riigiteataja.ee/en/eli/528122016001/consolide>

<sup>50</sup> Members of the council of the Faculty of Medicine. Retrieved 22.11.2018. Available: <https://meditsiiniteadused.ut.ee/et/teaduskonnast/teaduskonna-noukogu-0>

<sup>51</sup> Members of Tartu University Senate. Available: <https://www.ut.ee/en/university/structure-and-staff/university-governance/senate> Retrieved: 22.11.2018

hospital's side, there can be frustration regarding days for theoretical lectures when the residents are not available for work at the hospital and the amount of time which residents are required to spend on filling in paperwork (thus, bureaucracy) required by the university.

However, some of the people involved in organising residency state that in their opinion in Latvia's situation the principles of organisation of residency are optimal, albeit with a need for an increase in trust between the stakeholders and improvement in some processes within residency or related to it. One of the processes in need of improvement is the intended educational outcomes of the speciality programmes described in Cabinet of Ministers Regulations No. 268 of March 24, 2009 "Regulations regarding competency in medical treatment and volume of theoretical and practical knowledge for medical practitioners and students acquiring first or second level professional higher medical education programmes"<sup>52</sup>.

These regulations are followed by all institutions involved in organising of residency; however, Regulations No. 268 are highly heterogeneous. To provide an illustration of this, the section on family doctors contains around 6,705 words (with notes about when the law was changed) from which around 5,933 words are devoted to knowledge acquirable during residency and includes a very detailed list of the diagnoses, symptoms, manipulations, diagnostic methods, etc. that a family doctor learns during residency. In comparison, the section on the competence of surgeons contains only around 193 words (with notes about when the law was changed) from which 73 words are devoted to the intended educational outcomes of residency, listing only broad fields of medicine in which a surgeon is to gain theoretical and practical knowledge. Thus, the stakeholders indicate that coordinated action is necessary in order to improve the content of the intended educational outcomes for specialities in the Cabinet of Ministers Regulations No. 268 that are the basis for the intended educational outcomes of the PME programmes.

### **Lithuania**

Rating: 2 / -0.02

The basic principles of organisation of PME and intended educational outcomes of the programmes appear to be somewhat held in disapproval by the final consumers of the educational system – the residents – and some of their direct supervisors. The assessment of whether the trainees have achieved the educational outcomes, which in all specialities come in the form of a final exam, unfortunately, lacks objectivity, as the final exams for all trainees are organised by the educational staff from the same departments in which the trainees were taught. According to the respondents of our survey, the residency training is somewhat chaotic in real life. When asked if the PME on their speciality is organised in line with their understanding of it should be provided, 54.1% of residents either disagreed or strongly disagreed with the statement.

### **1.3. The form(s) of PME and the intended educational outcomes of the programmes constitute a coherent whole with the needs of the health system**

#### **Estonia**

Rating: 2 / 0.17

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<sup>52</sup> Entry into force: 29.06.2018., Retrieved at 30.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

The needs of the health system are not fully covered in the educational outcomes. The current system maps out general outcomes in the programmes but does not state the intended educational outcomes of individual rotations, which in several specialities has led to the rotations consisting solely of observing and thus having no training value. In addition, certain aspects of the curriculum do not necessarily meet the needs of a speciality or a resident specialising in a narrower field. Qualitative evidence shows that in terms of acquiring practical experience and supervisor's attention, residents specialising in the same field as their supervisor have an advantage, thus their experience varies extensively depending on whether they are undergoing their own speciality's rotation or are the so-called guest residents in the department.

The junior doctors expressed doubts that current postgraduate medical education provides sufficient skills for them to manage as independent physicians. The lack of emphases on so-called soft skills such as communication, teamwork and medical jurisprudence is considered problematical. Focus groups revealed this leads to specialists who, after finishing PME, do not feel comfortable with working independently at the level that is expected by the health system. Nonetheless, according to Labour Force Monitoring and Forecasting System OSKA report "Future view of labour and skills needs: healthcare"<sup>53</sup>, employers consider the qualifications of the doctors coming from the education system to be very high. They further stated the fact that doctors moving abroad are able find professional work in high-level hospitals also indicates this.

The lack of coherent educational outcomes affects the family medicine speciality the most. Since the duration of the training is short, only 3 years and 4 years from July 2019<sup>54</sup>, and the speciality being broad-based, the training should be to the point. Considering the increasing role of the family medicine specialist as a gatekeeper<sup>55</sup>, the knowledge of most common health problems and their treatment and the grasp of socio-economic aspects of healthcare currently received does not fulfil the requirements of the medical specialists and the health system. The interviews revealed that individual PME rotations for family medicine trainees consist principally of observing, and often the supervisor has no knowledge of what the trainee should gain from the rotation.

## Latvia

Rating: 2 / -0.3

Residency itself is ubiquitously involved in the current health system as residents work in hospitals during their residency. However, as mentioned in standard 1.2., the intended educational outcomes set by Cabinet of Ministers Regulations No. 268 are generally very broad, while some are very detailed; many have not been updated since 2009 and, because of their broadness, seem to have too limited a connection with the needs of the health system. A resident expressed in the survey: "Nearing the end of my residency I believe, overall, that the training that we receive in my speciality does not prepare us for the functions which ought to be carried out after the receiving of the certification." However, a supervisor's view is diametrically opposite: "The acquired theoretical knowledge and practical skills allows residents to work independently in speciality after graduation."

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<sup>53</sup> Available: [http://oska.kutsekoda.ee/wp-content/uploads/2016/04/tervishoiu\\_uuringu\\_terviktekst.pdf](http://oska.kutsekoda.ee/wp-content/uploads/2016/04/tervishoiu_uuringu_terviktekst.pdf)

<sup>54</sup> <https://www.riigiteataja.ee/akt/128062018017>

<sup>55</sup> <https://www.sm.ee/et/uudised/perearstide-ja-odede-roll-tervisesusteemis-suureneb>

## Lithuania

Rating: 2 / -0.02

One of the most important needs of the healthcare system is a sufficient number of competent specialists, ready to address the needs of their patients. The exact competencies each specialist has to have at the end of their residency are determined by the residency programme committees (commissions), which base their descriptions of residency programmes on national and international documents and recommendations. However, as mentioned, the situation described in these documents often does not reflect the reality. When asked if the overall structure, composition and duration of the programme on their speciality is sufficient to prepare competent specialists, 60.4% of residents either disagreed or strongly disagreed with the statement. Many respondents emphasised the short durations of some of the residencies, and the lack of clinical practice. A resident stated: "It was not sufficient, too much paperwork, no clinical practice. Only 3 years, not enough time." Another trainee agreed: "It's too short and superficial, not enough practical training. Very extensive programme oriented towards theory but not enough time to master practical skills and not enough time to prepare for even the theoretical level. Practical work mostly consists of legal issues and social problem solving, during our training we have very little coverage of these topics." Another resident shared similar opinions: "The programme is the same as Europe as a whole, but the time of training is 2 years shorter."

Even though 55% of the supervisors either agreed or strongly agreed with the statement that the overall structure, composition and duration of the programme on their speciality is sufficient to prepare competent specialists, supervisors of several specialities agreed that the duration of the programmes is too short.

### 1.4. The trainees are selected, and programmes delivered in accordance with principles of equality

#### Estonia

Rating: 1 / -0.99

Conflicting evidence exists. Admission is based on the University of Tartu Senate's Act<sup>56</sup> No. 2 "Regulations of Residency" Ch. II Point 17, which states "The residency vice dean, on the proposal of the programme director of the speciality, appoints three to five members of the admissions examination committee. At least one of the members of the admission committee must be from outside the university", but it does not mean the third party should be outside the university hospital, which is legally a separate institution. Students are involved with the hospital during basic medical education, consequently this reduces objectivity of the commission. Point 24 states that the admission committee will make the results known within 3 working days, but it does not state the points should be made public.

Residents have raised concerns that PME admission exams are subjective; male candidates or "familiar faces" are preferred. Regarding the delivery of programmes, 40% of specialist trainees said they have experienced unequal treatment.<sup>57</sup> Furthermore, the interviews revealed that there are cases where

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<sup>56</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>57</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 24–28. Tallinn: Poliitikauuringute Keskus Praxis.

persons accepted to certain specialities are determined before admission exams and the programme places are created especially for these people. Several female residents also expressed that they have encountered sexual harassment during residency.

There is also a great deal of unwarranted variation between programme deliveries that is highly dependent on the speciality of the trainee. It has been mentioned that trainees who are not doing their speciality rotations are treated as observers and not given sufficient supervision and practice, or are not taught at all. In addition, in some specialities, residents are treated as free labour and their on-call hours are not paid.

### Latvia

Rating: 2 / -0.3

Rīga Stradiņš University's "Admission Regulations for the Second Level Professional Higher Education Programme "Residency in Medicine" in a Study Place Funded by State Budget"<sup>58</sup> (and its counterpart on Study Places Funded by Physical Persons or Legal Entities) state that "The university has these obligations during the admission process: ... Not to allow discriminatory attitudes towards applicants". Equally, "Admission regulations in the University of Latvia"<sup>59</sup> state that "UL's duties are: ... Not to allow differing attitude towards applicants". In the survey 29% out of 138<sup>60</sup> residents have expressed that they strongly disagree or disagree that "the process of selecting trainees is transparent and fair". Comments from residents include: "Unfortunately, there are people who 'have to get in training'"<sup>61</sup>. Moreover, interviews before selection are "quite subjective.", "The interview part of the process holds too much weight and favouritism is a big part of that process, one that no one is even trying to hide." "In some specialities it is (fair), but in some other factors may play role." A total of 34% out of 112 residents agree, 10% strongly agree, and 28% neither agree nor disagree with the statement: "During residency my co-residents and I are treated equally, and our rights have not been violated." A recent graduate states: "Overworking and burnout are present [during the study process], but bullying or other kinds of violence is not." There are also 19% who disagree and 9% who strongly disagree with the comments below: "Sexism, personal feelings, friendships and other components strongly detract from disturb equality.", "There are more and least favourite residents. The ones who are 'chosen' are able to get more practical training, communication with supervisors, etc. In my speciality everyone knows that and lives with this system. I've talked with others and this kind of system has been there for years.", "There is always a list of the most likable and the second class."

### Lithuania

Rating: 3 / 1.31

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<sup>58</sup> Approved in Rīga Stradiņš University Senate on 21.11.2017. Retrieved 26.07.2018., Available: <https://www.rsu.lv/sites/default/files/imce/Dokumenti/noteikumi/uznemsanas-noteikumi-rezidentura-2018.pdf>

<sup>59</sup> Approved in University of Latvia Senate on 30.05.2016., retrieved on 26.07.2016. Available: <https://www.lu.lv/par/dokumenti/noteikumiunkartibas/uznemsanas-noteikumi-latvijas-universitate/>

<sup>60</sup> The number was changed in March 2019.

<sup>61</sup> The citation conveys the view that some medicine students might be securing the residency places because they are viewed by the admission commission as in some way "superior" to other candidates, e.g. being the children of doctors.

A part of the final score in the process of selection into a residency programme includes a “motivational score”, which consists of an evaluation of the applicant’s engagement in research, volunteering experience and personal characteristics. The process occurs when the applicant has an interview with the “selection committee”, made up of the head of the department, several members of the educational staff and one representative of the trainees. The two universities each have their own recommended structure and means of evaluation of these components. However, as the research team concluded from interviews with focus groups, some departments in both universities do not adhere to the recommendations, paving the way for subjectivity in the process, as the motivational score, in some cases, determines the final outcome of the application (for instance, in one of the universities, an applicant is removed from the process of application if their motivational score is not high enough). When asked if the process of trainee selection is transparent and fair, an equal percentage of respondents (35.4% (strongly) agreed and (strongly) disagreed with the statement.

A trainee explained their opinion: “The points given during the ‘motivational interview’ depend heavily on who the interviewers want to accept. Some residency vacancies are ‘promised to someone’ which means that all the other candidates usually get a lesser grade. Depending on the residency programme it can be difficult to get a substantial number of points when applying for a residency in a different university from the one you graduated from.” A supervisor added: “It is a totally chaotic process. Nobody knows who is deciding. Usually the decision is taken by the heads of the departments and all these commissions are only formalities.”

The principle of equality in the process of delivering the programmes is not emphasised in any of the related documents. When asked if the trainee and their co-trainees have been treated equally and their rights were not violated, 43.6% of the respondents either disagreed or strongly disagreed with the statement. It appears that a part of the mistreatment is due to sexism and sexual misconduct in the surgical specialities, as one trainee explained: “Male residents are allowed to operate more than female residents.” Another trainee added: “I would say I strongly agree if not for the surgical rotation. Male doctors there are sort of ‘soviet mentality’ and they hit on young female residents a lot, like grabbing them in the hallways, using inappropriate phrases, etc.”

It is important to mention that because of a recent report of sexual misconduct in the university hospital, one of the main PME centres is currently establishing a body for dealing with such problems.

### **1.5. A policy is formulated and implemented on the criteria and the process for selection of trainees**

#### **Estonia**

Rating: 3 / 1.33

University of Tartu Senate's Act<sup>62</sup> No. 2 "Regulations of Residency" Ch. II and the Act of Minister of Social Affairs No. 56 "Framework requirements of residency and procedures for conducting residency"<sup>63</sup> clearly formulate the selection process which is fully implemented.

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<sup>62</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>63</sup> <https://www.riigiteataja.ee/akt/131012017028?leiaKehtiv>

The candidate must have graduated basic medical or dentistry education. The candidate can apply for two PME specialities, indicating their speciality preferences on the application. The admission exams take place once a year. The exams have a written and an oral part and are in Estonian. The substantive requirements and procedures of the admission examinations are established by the council of the Faculty of Medicine. The vice dean of PME, on the proposal of the programme director of the speciality, makes up the admissions examination committee of three to five members. At least one of the members of the committee must be from outside the university.

The acceptance is based on a ranking based on the final exam results of basic medical or dentistry education and the outcome of the admission exam. In the case of equality of admission results, the candidate with a doctorate in the corresponding field is firstly preferred, the candidate who has submitted a doctoral thesis in the corresponding field secondly and the candidate with a higher number of points received for admission thirdly. Still, as mentioned above, while the regulation has been formulated, residents have expressed that the admission process is not as transparent and objective as it seems on paper.

### Latvia

Rating: 4 / 1.96

Both Rīga Stradiņš University and the University of Latvia have each formulated a different policy on the criteria and process for the selection of trainees in PME:

1) Rīga Stradiņš University's "Admission Regulations for the Second Level Professional Higher Education Programme "Residency in Medicine" in a Study Place Funded by State Budget"<sup>64</sup>. A similar document is available on the website of Rīga Stradiņš University regarding study places funded by physical persons or legal entities;

2) University of Latvia's Order No. 1/173 of June 12, 2017 "On Admission Requirements and Criteria for the Second Level Professional Higher Education Programme "Medicine" in academic year 2017/2018"<sup>65</sup> defines the admission requirements and criteria, while the process for selection of trainees is visible from this document, albeit in less detail.

Filing an appeal regarding the admission results is an option in both universities (based on aforementioned documents), therefore it is concluded that the policy on the criteria and the process for selection of trainees is implemented<sup>66</sup>.

### Lithuania

Rating: 3 / 1.31

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<sup>64</sup> Approved in Rīga Stradiņš University Senate on 21.11.2017 retrieved 05.06.2018. Available: <https://www.rsu.lv/sites/default/files/imce/Dokumenti/noteikumi/uznemsanas-noteikumi-rezidentura-2018.pdf>

<sup>65</sup> Retrieved 05.06.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/zinas/2018/Maijs/1-189\\_2018\\_Par\\_uznemsanas\\_prasibam\\_un\\_kriterijiem\\_otra\\_limuna\\_profesionalas\\_augstakas\\_izglitiba\\_studiju\\_programma\\_Medicina\\_2018.-2019.\\_akad.\\_gadam.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/zinas/2018/Maijs/1-189_2018_Par_uznemsanas_prasibam_un_kriterijiem_otra_limuna_profesionalas_augstakas_izglitiba_studiju_programma_Medicina_2018.-2019._akad._gadam.pdf)

<sup>66</sup> More information on the trainee selection process for the University of Latvia can be obtained from "Admission regulations in the University of Latvia". Approved in University of Latvia Senate on 30.05.2016., retrieved 05.06.2018., Available: <https://www.lu.lv/par/dokumenti/noteikumiunkartibas/uznemsanas-noteikumi-latvijas-universitate/>

Both universities include similar criteria into their process of trainee selection and renew them annually. This year, the criteria in the Lithuanian University of Health Sciences include the final exam score, the score of the internship exam, the average grade of the subjects during the 6 years of medical school, in addition to a score for research activities and the motivational score. The criteria in Vilnius University are very similar. However, they do not include the score for the internship exam, as it is included into the grade average, although they additionally include a separate score for the average grade for the “speciality” exams – that is to say, the subjects in medical school that are especially relevant to the specific residency programme. In addition, the motivational score is not mandatory for application in Vilnius University.

The criteria have been repeatedly criticised and are renewed almost annually to reach an agreement amongst all stakeholders. In addition, the aforementioned guidelines for trainee selection are not implemented in some departments.

### **1.6. The intake of trainees and the education capacity are in balance, the number of education positions is proportionate to the clinical/practical training opportunities and capacity for appropriate supervision**

#### **Estonia**

Rating: 2 / 0.17

University of Tartu Act<sup>67</sup> §7 secunda sect. 1: "Ministry of Social Affairs provides proceeds the provision of residency places from the proposals of healthcare providers, doctors and dentists' specialist organisations and the university, as well as from the availability of state budget funds." According to information collected in focus groups with residents, there is no clear and transparent process currently in place. Annual postgraduate medical education committee meetings take place, but different stakeholders have expressed concerns that the outcome of these meetings is not in accordance with actual training and supervision opportunities and labour market needs. There are currently no interdisciplinary minimum standards for planning of education positions.

Interviewees mentioned, in some specialities, the number of accepted trainees is high in order to cover for the lack of labour needed. On the other hand, in some training institutions the trainees do not have allocated work spaces and computers due to overcrowding. Lack of supervisors and supervision and practical training opportunities were also highlighted as major concerns by residents.

#### **Latvia**

Rating: 2 / -0.3

Cabinet of Ministers Regulations No. 685 of August 30, 2011 “Regulations on admission and distribution of residents and financing of residency”<sup>68</sup>, Article 3 stipulates that the Ministry of Health calculates the residency places fundable by state budget based on: "3.1. information on the number of doctors needed, supplied by the healthcare institutions; 3.2. the number of doctors who do not work in their speciality; 3.3. the number of unemployed doctors; 3.4. the predictable number of doctors who will

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<sup>67</sup> Available: <https://www.riigiteataja.ee/en/eli/528122016001/consolide>

<sup>68</sup> Updated 20.04.2018., Retrieved 29.07.2018., Available at: <https://likumi.lv/doc.php?id=235421>

reach the retirement age within 5 upcoming years; 3.5. the reciprocal analysis of the statistical data on the provision of European Union member states' doctors; 3.6. the demographic situation and the development forecasts; 3.7. prognoses for full-time work places of medical treatment persons." As can be seen above, the Ministry of Health is not required to consider the educational capacity of the hospitals and the universities before making the decision on the number of the state-funded residency places for the next year. However, the interviews with university representatives revealed that the Ministry might enquire as to the capacity of the universities and hospitals to train residents in specialities. The universities themselves determine the number of PME places funded by physical or legal persons. From the interviews, it can be seen these decisions are taken based on information on the available capacity for training. However, from discussion during the national workshop, there might be cases where the interests of the university (in taking an additional resident and receiving the tuition fee) and the hospital (seeing that there is no more capacity to supervise and ensure an adequate learning environment for the resident) clash. Some resident comments from the survey provide evidence of lack of time on the supervisors' side or lack of available rooms for residents in certain departments: "Shortage of staff -> doctors don't have time -> residents are treated as secretaries.", "Mostly there is no room for residents to work with a computer or papers on wards, no room for studying, no room for rest between shifts.", "Most supervisors have 2-4 jobs and don't have time for residents, students, patients, etc."

### **Lithuania**

Rating: 2 / -0.02

When applying for the position to become a residency base, a healthcare institution must provide the Residency Base Assessment Committee with the number of staff able to work as supervisors for the residents in addition to the number of certain medical procedures that are performed in the institution, in order to decide whether or not the residency base is sufficiently equipped for the resident to take part in their education process. However, as it appears from interviews with focus groups, the working conditions described on paper often do not reflect the reality. In addition, most of the educational processes take place in the two university hospitals, where clinical wards are often either overcrowded or understaffed with residents because of the imbalanced distribution of residents between departments in hospitals, which in turn occurs due to the large number of residents and lack of proper management of hospitals and PME.

### **1.7. There is a clear policy formulated and implemented for recruiting and selecting trainers, supervisors and teachers**

#### **Estonia**

Rating: 1 / -0.99

According to The Act of Minister of Social Affairs No. 56 of 04.06.2001 "Framework requirements of residency and procedures for conducting residency"<sup>69</sup> §8, the only clear criterion is that the trainer must be a doctor with scientific and work experience in the area for at least 5 years and have up to two trainees at a time. A part of the criterion is not clearly stated; it could be understood that the trainer

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<sup>69</sup> The Act entered into force 03.02.2017, RT I, 31,01,2017, 28. Available: <https://www.riigiteataja.ee/akt/131012017028>

should have either studying or teaching experience. There are no clearly stated criteria for pedagogical expertise, being up-to-date with scientific discoveries and academic literature, having good interpersonal skills and ethical knowledge, etc., to which the trainers must comply. It was mentioned during interviews that often doctors are forced to become supervisors due to lack of medical specialists, which leads to a reluctance to teach.

Professional competency criteria are developed by specialist organisations/associations (§4 of the Act of Minister of Social Affairs No. 128 of 15.12.2004 "Quality assurance requirements for health services"<sup>70</sup>), but their assessment is voluntary, unregulated and not periodical<sup>71</sup>. Therefore, work experience by itself cannot guarantee competency of the trainer.

### Latvia

Rating: 0 / -2.23

Section 2(1) of the Article 33 of the Medical Treatment Law<sup>72</sup> states that "Any medical practitioner certified in basic speciality, sub-speciality or additional speciality whose work experience in the relevant basic speciality, sub-speciality or additional speciality after acquisition of a medical practitioner's certificate is not less than 5 years has the right to carry out training of residents at healthcare institutions according to accredited residency educational programmes in medicine." The researcher was unable to find a more clearly defined policy for recruiting and selecting trainers, supervisors and teachers for PME.

### Lithuania

Rating: 2 / -0.02

The criteria for resident supervisor and coordinators are described in the respective university's "Regulations of Residency". A resident supervisor is a university employee and/or a doctor working in a residency base, with at least 5 years of clinical experience. A coordinator of a residency is a university employee, with or without an academic degree, appointed by the faculty. There are no other criteria, including qualitative (specific skills and competences), for selecting the resident supervisor.

## 1.8. The trainees can, to a reasonable extent, choose the institution and/or its subunit where to pass (parts of) their training

### Estonia

Rating: 3 / 1.33

The Regulations of Residency Act states that the training takes place according to individual curriculums, with practical training in base institutions that have contracts with the university (the University of Tartu Senate's Act<sup>73</sup> No. 2 "Regulations of Residency" Ch. IV, pt. 32, 34.) According to

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<sup>70</sup> RT I, 06.11.2013, 6. Entry into force 01.01.2014. Available: <https://www.riigiteataja.ee/akt/828314?leiaKehtiv>

<sup>71</sup> Praxis. Ülevaade arstlike erialade arengukavadest. pp. 39–40 Tallinn: Poliitikauuringute Keskus Praxis, 2013.

<sup>72</sup> <https://likumi.lv/doc.php?id=44108> version as of 01.01.2018, retrieved 29.07.2018.

<sup>73</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

programmes of specialities<sup>74</sup>, there is an option to choose from a list of institutions, but there is no written clause that the resident has the opportunity to choose between the institutions. In some specialities, the programme director decides where the trainee can undertake some of their training. On the other hand, in some specialities the trainee looks for opportunities that are approved by the programme director.

Additional comments in the survey expressed conflicting opinions. According to the survey, over 35% of respondents do not agree that PME considers their individual needs. Based on comments by residents, the lack of flexibility in the choice of location of rotations can be highlighted in certain disciplines, and the presence of families and children is not taken into account when determining location and rotation places.<sup>75</sup>

### **Latvia**

Rating: 4 / 1.96

The junior doctors can choose to which of the two universities they apply, keeping in mind the fact that in certain specialities each university provides residency at different institutions. However, some specialities are only available at one of the universities. Furthermore, the interviews with university representatives revealed that trainees are allowed to choose between training institutions when there is such a possibility. Additionally, there are possibilities to complete part of the training abroad through Erasmus+.

### **Lithuania**

Rating: 2 / -0.02

The extent of freedom to choose the institution and/or its subunit to pass a part of the residency is determined in the descriptions of individual residency programmes. However, as the research team concluded from interviews with focus groups, the actual implementation of this freedom often depends on the decision of the coordinator of the residency.

## **2. The quality of postgraduate medical education**

### **2.1. The form(s) of PME ensure the training of medical doctors who are competent to undertake appropriate medical practice in the defined field of medicine and capable of working in a professional manner**

#### **Estonia**

Rating: 2 / 0.17

The programmes of PME are compiled in a way that best supports the training of competent medical doctors with broad-based curriculums and rotations in different specialities<sup>76</sup>. According to the Labour

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<sup>74</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>75</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 120–123. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>76</sup> University of Tartu Faculty of Medicine, Specialities programmes. Available <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

Force Monitoring and Forecasting System OSKA report "Future view of labour and skills needs: healthcare", employers consider the qualifications of the doctors coming from the education system to be very high. They stated the fact that doctors moving abroad are able find professional work in high-level hospitals also indicates this.<sup>77</sup>

Although 60% of junior doctors stated that PME in their speciality is organised in accordance with their vision of PME,<sup>78</sup> evidence suggests that current postgraduate medical education by itself does not provide sufficient skills for graduates to confidently become independent physicians. Only 27% of respondents agreed that, during the residency, residents are given sufficient feedback that supports their becoming a professional doctor.<sup>79</sup> Furthermore, the lack of focus on "soft skills" and constructive feedback from supervisors leads to junior doctors not feeling sufficiently confident and skilled to practise medicine independently. The lack of communication and teamwork training was also mentioned. They expressed that, in order to achieve competency, additional training is often required and is gained through voluntary and unpaid on-call duties outside regulated PME programmes.

### Latvia

Rating: 3 / 0.92

A majority of 65% of supervisors agree that "The overall structure, composition and duration of the programme on my speciality is sufficient to prepare competent specialists" and 15%<sup>80</sup> strongly agree. Approximately half of the comments are supportive of this view, such as: "According to European standards.", "The programme is aligned with the European speciality programme. We have the appropriate bases, resources and lecturers.", "The current number of years is enough for my speciality." Still the remaining supervisors' comments reveal that changes in the study programmes are needed or the length of the programme or specific rotations needs to be modified: "All is included, but still some updates are necessary.", "Maybe too long. Not sufficient time for one rotation.", "The duration of training is sufficient (and possibly too long), but the content of training is not sufficient.", "Should be 5-year residency.", "3 years now, 4 is necessary." Recent graduates' answers to the same statement signal the need to adapt some study rotations: "There are some unnecessary rotations/courses during the first years of residency.", "Some study rotations should be changed (updated), some introduced."

### Lithuania

Rating: 2 / -0.02

The criteria to finish one's residency only includes a pass on the final residency exam and (although not in all cases) a research paper, therefore many residents achieve their licence as a specialist without having all the required competencies determined by the residency programme committees, which base their descriptions of residency programmes on national and international documents and recommendations. However, due to a lack of resources and/or time, in reality the trainees are not able to reach the described outcomes. When asked if the overall structure, composition and duration of the

<sup>77</sup> Available: [http://oska.kutsekoda.ee/wp-content/uploads/2016/04/tervishoiu\\_uuringu\\_terviktekst.pdf](http://oska.kutsekoda.ee/wp-content/uploads/2016/04/tervishoiu_uuringu_terviktekst.pdf)

<sup>78</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Tallinn: Poliitikauuringute Keskus Praxis

<sup>79</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>80</sup> The number was changed in March 2019.

programme on their specialty is sufficient to prepare competent specialists, 60.4% of residents either disagreed or strongly disagreed with the statement. Many respondents emphasised the short durations of some of the residencies and the lack of clinical practice. A resident stated: "It was not sufficient, too much paperwork, no clinical practice. Only 3 years, not enough time." Another trainee agreed: "It's too short and superficial, not enough practical training. Very extensive programme, oriented towards theory but not enough time to master practical skills and not enough time to prepare for even the theoretical level. Practical work mostly consists of legal issues and social problem solving, during our training we have very little coverage of these topics." A resident shared similar opinions: "The programme is the same as Europe as a whole, but the time of training is 2 years shorter."

Even though 55% of the supervisors either agreed or strongly agreed with the statement, supervisors of gastroenterology, family medicine, radiology and paediatric oncology agreed that the duration of their respective programmes is too short.

In addition to hard competencies, working in a professional manner also includes the ability to provide sufficient healthcare to patients of all races, genders, cultural and religious backgrounds. The development of some of these soft skills, if at all, is included into the residency programmes. However, when asked if the trainees are prepared to recognise gender, cultural and religious specifications and to interact appropriately, 48.6% of the respondents either disagreed or strongly disagreed with the statement, adding: "Our population is still quite homogenous, so we lack experience in interacting with different cultural and especially religious specifications." and "the ability to recognise gender, cultural and religious specifications depends solely on you, if you had experience abroad or have read a lot".

Other necessary soft skills, such as communication and teamwork, are not nurtured sufficiently – over half of the residents disagreed with the statement that during PME sufficient attention is paid developing skills that support working in a team with colleagues and other healthcare professionals. While many expressed a lack of fostering of communication skills throughout the survey, soft skills such as these are still to be considered an equally important part of medical education.

## **2.2. The form(s) and duration of PME ensure the training of medical doctors who can work unsupervised and independently in the defined field of medicine**

### **Estonia**

Rating: 3 / 1.33

According to Ch. I sub-point 2 of University of Tartu Senate's Act<sup>81</sup> No. 2 "Regulations of Residency" PME is post-medical and post-dentistry training that is designed to give residents the knowledge and practical skills to be an independent specialist doctor. There have been some concerns about the length of PME in family medicine. Currently it is only 3 years. Trainers and residents say that this is insufficient time to gain a complete overview of such a wide speciality.<sup>82</sup> This changes to 4 years from July 2019<sup>83</sup>.

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<sup>81</sup> Entry into force 26.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>82</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 138–143. Tallinn: Poliitikauringute Keskus Praxis.

<sup>83</sup> Act of Minister of Social Affairs No. 32 of 25.06.2018 "Changing of Act No. 110 of the Minister of Social Affairs of 28.11.2001 "List of Additional Specialist Degrees for Special Medical Specialities and Specialities" and Act No. 56 of the

A total of 60% of junior doctors stated PME in their speciality is organised in accordance of their vision of PME<sup>84</sup>.

The current system maps out general educational outcomes in the programmes but does not state the intended educational outcomes of individual rotations, which, in several specialities, have led to the rotations consisting solely of observation, thus having no training value. Moreover, certain aspects of the curriculum do not necessarily meet the needs of a speciality or a resident specialising on a narrower field. Thus, in order to gain medical specialists who can work unsupervised and independently, simply changing the duration of PME is not sufficient. Consequently, PME programmes must be organised in a way that residents gain the most from their training.

### Latvia

Rating: 2 / -0.3

Around 48% out of 136 residents agree and 10% strongly agree with the statement: "During postgraduate medical training professional autonomy of doctors is fostered to a level necessary to enable the doctor to act in the best interests of the patient and the community.", while 29% neither agree nor disagree, and 13% disagree. However, only negative comments were supplied for this statement, arguing that the amount of responsibility and autonomy within the residency is extremely variable: "Depends on the doctor I am working with. Also, tasks are sometimes overly low or high, some doctors do not allow us to try something, to practise, regardless that in the programme I should be able to do it already.", "Again, it depends. There are rotations where you have a good balance of autonomy and responsibility and a chance to ask advice if needed. But in other rotations the resident becomes more of a personal secretary, doing paperwork and with no time left to discuss the actual case. This is not due to the residents' qualities – all report equal experiences with certain doctors and this makes everyone feel equally useless and that they're wasting time.", "Autonomy isn't encouraged." Mostly doctors try to spread out the burden of responsibility, calling for numerous unnecessary consultations and hiding behind consultations performed by uninterested doctors.", "The quality of education is very low and after graduating from residency only a few are prepared to work independently." A majority of 30 out of 44 supervisors agree or strongly agree to the statement. Since most trainees and supervisors agree with this statement, but there are only negative comments from the trainees regarding it, the evaluation of this standard is 2.

### Lithuania

Rating: 2 / -0.02

The criteria to finish one's residency only includes a pass on the final residency exam and (although not in all cases) a research paper. Therefore, many residents achieve their licence of a specialist without having all the required competencies determined by the residency programme committees, which base their descriptions of residency programmes on national and international documents and recommendations. However, due to a lack of resources and/or time, in reality the trainees are not able to reach the described outcomes. When asked if the overall structure, composition and duration of the

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Minister of Social Affairs of 04.06.2001 "Framework Requirements for Residency and Procedure for Conducting a Residency". Entry into force 01.07.2019. Available: <http://adr.rik.ee/som/dokument/5821511>

<sup>84</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Tallinn: Poliitikauuringute Keskus Praxis.

programme on their specialty is sufficient to prepare competent specialists, 60.4% of residents either disagreed or strongly disagreed with the statement. Many respondents emphasised the short durations of some of the residencies (especially Family Medicine, Physical Medicine and Rehabilitation, Otorhinolaryngology, and Ophthalmology, which all last for 3 years), and the lack of clinical practice. A resident said: "It was not sufficient, too much paperwork, no clinical practice. Only three years, not enough time." Another trainee agreed: "It's too short and superficial, not enough practical training. Very extensive programme, oriented towards theory but not enough time to master practical skills and not enough time to prepare for even the theoretical level. Practical work primarily consists of legal issues and social problem solving, during our training we have very little coverage of these topics." A resident shared similar opinions: "The programme is the same as Europe as a whole, but the time of training is 2 years shorter."

When asked for general comments, one resident stated: "Programmes of residencies are very different, some are better, some are worse. I am very disappointed about my speciality and especially residency of my speciality, because I didn't get enough knowledge and practical skills for my future work."

Even though 55% of the supervisors either agreed or strongly agreed with the statement, supervisors of gastroenterology, family medicine, radiology and paediatric oncology agreed that the duration of their respective programmes is too short.

### **2.3. The form(s) of PME ensure the training of medical doctors who can work within professional and interprofessional teams when relevant**

#### **Estonia**

Rating: 2 / 0.17

The following related PME outcomes are stated in all residency specialist programmes<sup>85</sup>: "[Resident] knows the boundaries of their professional competence and is able to integrate the medical system optimally into the best way to solve the problems of doctors of other specialities and other healthcare professionals; is able to work together with relatives of patients, social system, etc., to support networks; is able to communicate the medical knowledge and the conclusions drawn from it to both patients, colleagues and the general public; is able, in cooperation with doctors of other specialities, to carry out differential diagnostics in case of complicated cases optimally using modern medical instruments and laboratory diagnostic possibilities."

There is critique from both residents and PME trainers. In this regard, 42% of residents disagree with the statement that in residency sufficient attention is paid to developing teamwork skills with other doctors, and 23% express that it is difficult to say. Moreover, 44% of residents disagree with the statement that during residency sufficient attention is paid to developing teamwork skills with other specialists (nurses, midwives, technicians, psychologists), and 25% claim that it is difficult to say.<sup>86</sup>

Different stakeholders see these skills to be acquired through everyday work and taught by supervisors. There is no training provided on teamwork and communication skills. Interview results state that often supervisors themselves do not have these skills, yet alone teach them to residents. In addition,

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<sup>85</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>86</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 28, 36. Tallinn: Poliitikauringute Keskus Praxis.

communication and teamwork is seen as something not worth focusing on. Furthermore, it has been mentioned that development of these skills is dependent on the department where the resident is in rotation. In some departments, residents can participate in departmental training. Residents and supervisors have also mentioned that it is highly dependent on several factors. In specialities which require constant cooperation between different healthcare professionals, teamwork and communication is an important part of training, although it is learned through practical training in teams. However, these cases are uncommon<sup>87</sup>. Therefore, it can be concluded that teamwork and communication skills are not developed during PME.

### Latvia

Rating: 2 / -0.3

Both the University of Latvia's "Overview of study branch "Healthcare" for 2016/2017" chapter "Medicine. Second level professional higher education (short progr.) 48721" and Rīga Stradiņš University's "Characterisation of study programme. Second level professional higher education study programme "Residency in Medicine" for 2015/2016 mention "ability to integrate within a team" among the intended educational outcomes of the programme. However, 138 residents' ratings of the statement: "During postgraduate medical training sufficient attention is paid developing skills that support working in a team with other health professions (nurses, midwives, technicians, psychologists)" is divided almost evenly into thirds (33.3% disagree or strongly disagree, 30.4% neither agree nor disagree, and 36.2% agree or strongly agree)<sup>88</sup>. The majority of the submitted residents' comments state that there is no formal course on communications (with exceptions in some speciality courses where teamwork is discussed in specific situations) and that the learning of teamwork skills on a daily basis depends on the resident's own initiative to learn from their colleagues. However, evidence from the supervisor comments is mixed. While one supervisor comments on teamwork with other doctors: "Very little multidisciplinary teamwork exists in practice, so trainees do not get enough experience in this modality of practice." Another supervisor maintains: "A lot of training is done on teamwork."

### Lithuania

Rating: 2 / -0.02

The importance of the ability to work within a team is described in the individual descriptions of residency programmes. However, when asked if during postgraduate medical training sufficient attention is paid developing skills that support working in a team with colleagues, 54.3% of respondents disagreed or strongly disagreed with the statement. As one resident put it:

"Not yet. Very few are team-oriented. Most of residents are working individually. Only a few possibilities to learn teamwork are available. In my opinion, the academic staff are poorly prepared themselves to teach it or to provide enough knowledge about it (although there are a few exceptions, for instance, PICU, ER, oncology)."

Another trainee added:

"You learn it from practice or you don't learn it at all."

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<sup>87</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Lk 36-41. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>88</sup> The numbers were changed in March 2019.

In addition, 54.9% of respondents disagreed or strongly disagreed with a similar statement suggesting that during PME sufficient attention is paid developing skills that support working in a team with other health professions (nurses, midwives, technicians, psychologists). A trainee explained their opinion:

“As my speciality is about working in a team, we spend quite a lot of time talking and discussing with other members of the team, but I couldn't say that somebody taught us how to work in a team. Everything came ‘naturally’, nobody taught any skills.”

A supervisor had similar opinions:

“I do think the level is quite low, with a few exceptions. No team-oriented meetings or discussions are held. Discussions are held internally – doctor-doctor level (in most of the cases with few exceptions) or nurse-nurse level.”

#### **2.4. The form(s) of PME ensure the training of medical doctors who are committed and prepared for lifelong learning and participation in continuing medical education and continuing professional development**

##### **Estonia**

Rating: 2 / 0.17

The following related PME outcome is stated in all residency specialist programmes<sup>89</sup>: "Resident recognises the need to continue to improve the medical knowledge and skills during their professional career and is prepared for lifelong learning."

Approximately 35% of residents do not agree and 40% agree with the claim: "Residents' skills and habits that support their constant professional development after the completion of the residency, are systematically developed during the residency." Respondents commented that it is highly dependent on the person and their supervisor, and it is very far from being systematically developed.<sup>90</sup>

Approximately 40% of residents do not agree with the claim: "During the residency the professional aspects of being a doctor are handled: skills for lifelong learning and maintaining competency, ethical behaviour, ethical behaviour, altruism, empathy, ability to work with others, compliance with ethical codes, patient safety."<sup>91</sup> Residents have noted the following: "The learning is rather hectic, it largely depends on the day-to-day practice and skills of the supervisor.", "This topic is not directly touched upon, you learn while working.", "It is considered rather a natural part of work, it is not specifically brought up or discussed with residents.", "Depends on the supervisor."<sup>92</sup> Another resident stated the following: "Unfortunately, this is not the case. Those who are interested in self-improvement, they see to it. Those who are not, they do not, and it has no consequences. These skills-habits are left entirely to the resident's own concern." There are no seminars or other theoretical training offered in relation to this, therefore it can be said the educational outcome in PME programme is not fully implemented.

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<sup>89</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>90</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, p 41-42. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>91</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 41, 52. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>92</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 52–53. Tallinn: Poliitikauuringute Keskus Praxis.

## Latvia

Rating: 2 / -0.3

Around 50% (69) residents agree and 15% (20) strongly agree that "During postgraduate medical training the trainees are prepared for lifelong learning and participation in continuing medical education/continuing professional development." One supportive comment reads: "I think more yes than no. We are advised to participate in conferences and other continuing medical education events of any kind. You quickly notice that it takes lifelong learning in order to stay 'up-to-date' and practise evidence-based medicine." The remaining 26% (35) of the residents neither agree nor disagree, but 9% (13) residents disagree, commenting: "Rarely do people look at recent publications, research and guidelines. Mostly everyone practises like they have done for many years, failing to update their knowledge. Often this thinking is accepted by residents.", "Depends on the trainee. Most prospective graduates have this quality by default. The programme does not nurture lifelong learning in residents (I personally believe that is the responsibility of the individual).", "We are only told that it's going to be a lifelong experience if you are smart enough and work hard. I think nothing can prepare you in the medical school. Only your practical experience.", "It's the trainees' own initiative.", "Depends on the rotation." Recent graduates of PME express a very similar distribution of answers and there is another valuable comment: "Sort of, you are obliged to because recertification requires conference attendance and other activities." From the high agreement with the statement it can be deduced that most residents believe that they are prepared for lifelong learning and participation in continuing medical education after finishing PME. The clear majority of the comments, however, point out that this readiness to continue one's medical education is primarily achieved on one's own, not as a result of systemic practices.

## Lithuania

Rating: 3 / 1.31

When asked if during PME the trainees are prepared for lifelong learning and participation in continuing medical education/continuing professional development, 35.6% of residents agreed or strongly agreed with the statement, 31.3% neither agreed nor disagreed, followed by 33.2% who disagreed or strongly disagreed with the statement.

A trainee explained their opinion:

"There are opportunities for seminars, workshops and internships."

Another trainee added:

"They are prepared to learn because the knowledge we gain is not enough to work successfully on our own immediately."

and,

"Learning to participate in continuing medical education depends on your efforts."

When the supervisors were asked the same question, an overwhelming 65.7% agreed or strongly agreed with the statement.

## 2.5. The trainees have appropriate working conditions to maintain their own health

### Estonia

Rating: 2 / 1.33

General working conditions and rest time are regulated by Occupational Health and Safety Act<sup>93</sup>, Employment Contracts Act<sup>94</sup> and other corresponding acts. On-call times are individual and depend on specialities and are stipulated in the residency specialist programmes<sup>95</sup>. There are no specific guidelines for PME.

Approximately 38% of respondents do not agree with the claim: "Residency studies are organised in such a way as to maintain the resident's mental and physical health" and 20% claim that it is difficult to say. Residents have brought up that it is individual and how they handle stress very much depends on personal characteristics. Residents or residency graduates have said the following: "During the period of residency, you will be exploited, and the work days are busy with the speciality rotations. If you need to read the treatment guidelines or articles, then you have to do it during your free time.", "There is normally no organised option to take a sick leave or, for example, unpaid leave. It is only possible to take a vacation for the whole month." Another resident responded that in order to achieve minimal competency, the average working week should be 70+ hours.

According to Occupational Health and Safety Act §8 sect. 2: "An employer shall implement measures to provide protection from biological hazards present in a workplace, taking account of the infectiousness of the hazard," §9 sect. 2: "Psychological hazards are /--/ poor work organisation, working alone for an extended period of time, and other similar factors that may gradually cause changes in the mental state of an employee," §11 sect. 2: "Non-workrooms for employees shall be constructed and furnished taking account of the working conditions and the number and gender of the employees." It has been mentioned that in base training hospital departments there are no workplaces for trainees, and they have to find themselves a computer to work on. In addition, often there are no lockers in the coatroom where they could store their clothes.<sup>96</sup> Similar problems with workplace conditions were mentioned in several interviews. Notably, focus group results revealed that often residents are not provided with clean scrubs required for safe working so they must provide and clean their clothes by themselves. This causes additional stress to residents and may, in the long term, affect their mental and physical health. There is currently no actual inspection by the University nor the Ministry of Social Affairs in relation to whether the trainees have adequate working conditions.

### Latvia

Rating: 1 / -1.18

The statement: "The trainees have appropriate working conditions to maintain their own mental and physical health." has the second lowest weighted average in the survey amongst residents – 2,85. Here,

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<sup>93</sup> Available: <https://www.riigiteataja.ee/en/eli/ee/511112013007/consolide/current>

<sup>94</sup> Available: <https://www.riigiteataja.ee/en/eli/ee/530102013061/consolide/current>

<sup>95</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>96</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 75–82, 156. Tallinn: Poliitikauuringute Keskus Praxis.

31% of the total of 124 residents disagree and 13% strongly disagree with it, 21% neither agree nor disagree, while 30% agree and 5% strongly agree. The distribution of answers between recent graduates is almost the same, with a weighted average of 2,75. The supervisors' perception of the same statement is more favourable: 7 disagree with it, 13 neither agree nor disagree, but 19 agree and 3 strongly agree, with a weighted average of 3,43. This statement also has the highest number of residents' comments, 23. Most commentators stress the low salary paid to residents, because this factor results in the junior doctors taking on several jobs and thus negatively affecting the working conditions by detracting from the energy and time attributable to residency. Most characteristic comments in this regard include: "The salary is too low, trainees have to have a second job.", "300+ hours in a month. 36+ hour workday.", "By working in three jobs simultaneously no one can have appropriate working conditions.", "Another very important issue is the fact that residents work at several hospitals/institutions because the pay is very low – this has a detrimental effect on their physical and mental health, as well as on the quality of their work." Moreover, supervisors' comments stress the effect of residents working in too many places: "Not always, as they should work parallel in different roles to maintain their family or themselves. Often, they are very tired.", "Residents are too often overloaded with simultaneous tasks – residency, duties during residency, academic work and additional work in outpatient departments to maintain their material needs." However, one supervisor specifically underlines the residents' workload as part of the study process: "Sometimes they are overloaded with work: preparation for seminars, case analysis and work with patients." Some residents also mention that they stay in the hospital to finish work after their official workday is over: "Shifts are often longer than officially said to be and there is lack of time to read and search for deeper thorough knowledge.", "If a trainee is working in the emergency department for 24 hours, the next day he is not allowed to go home and have a rest. He has to work in speciality department next day. This means that a trainee at least twice a month has to work 36 hours continuously." Besides, there are departments with inappropriate facilities: "Mostly there is no room for residents to work with a computer or papers on wards, no room for studying, no room for resting between shifts.", "Not all of us have a place to stay/rest/eat/sleep between work and night shift or night shift/seminars/classes. I often find myself dozing off in the middle of the hospital somewhere on a chair although I could easily spend my 3 free hours before the night shift napping. Some – not all – departments have rooms for residents.", "Lots of residents don't even have a place where they can change into their working scrubs...", "The working conditions usually are critically bad, no computers, no individual work space, even no changing rooms!" In some cases, the planning of rotations as well as the accessibility of IT systems for residents is a problem: "Sometimes in one unit there are a lot of residents in one period of time – simply no physical place to work.", "Hospital has not planned for the option that there will be doctors – residents. IT systems don't work for them, as well as a lot of limitations for what residents can even do with patients – prescribe medicines etc." Moreover, junior doctors also mention various reasons for mental stress: "The lack of supervision from the early stages of traineeship increases the mental stress. There is no training on communication and ethics, especially when dealing with patients and delivering bad news. There is no real tradition to offer psychological support after 'traumatising' events, such as losing a patient, conflicts, medical mistakes made by the trainee.", "Working conditions at the hospital are usually without any psychological support and there is a high risk of burnout amongst supervisors as well as residents, some supervisors already have features of burnout such as lack of interest, or lack of time for conversations with relatives. Physicians are involved in the resolution of patients' social problems because there is no system in place for how social care questions should be solved.", "It is hard to be in the emergency department. On the one

hand, it is the perfect place to gain knowledge, but also there is also high stress if, at the beginning, I do not know right way to treat patients. The problem is that we residents cannot discuss all cases with our teachers/doctors, because they do not have time."

### Lithuania

Rating: 2 / -0.02

The importance of maintaining physical and mental health is not emphasised in any of the residency-related documents. When asked if the trainees have appropriate working conditions to maintain their own mental and physical health, 60.1% of residents disagreed or strongly disagreed with the statement, while 58.3% of their supervisors agreed or strongly agreed with the same statement.

A trainee explained: "As residency hours are (officially) rather short, yes. However, since most of the residents have additional jobs and responsibilities, they are mostly overstressed. I do not know of any person or service where a resident could come for mental health issues. Physical health as well – to get vaccinated for influenza, it takes a lot of effort and persistence." Another resident added: "Resident physicians in university hospitals are not regarded as having equal employee rights because the hospital doesn't pay their salaries (the money comes from the Ministry of Health and the Ministry of Education). Because of this, depending on the ward, resident physicians are not provided with a working space, a space for resting (e.g. a bed to sleep during shifts), or working tools (computer)."

A supervisor also shared their opinion: "A lot of overtime. Shifts are somehow okay, but work organisation is very chaotic, as extra hours can appear without any planning in advance."

## 2.6. The programmes are up-to-date and in accordance with the latest developments on the selected field of medicine

### Estonia

Rating: 2 / 0.17

According to §5 sect. 1 and 2, a medical resident or, before 2001/02, a person matriculated in residency undergoes a residency programme based on an individual residency programme consisting of rotations outlined in the speciality programme. The individual curriculum in the basic institutions is drawn up by a university-appointed representative together with the resident and the university approves it for each academic year individually.<sup>97</sup> Changes to PME programmes can be made every academic year, with the changed residency programme being the corresponding version for the academic year.<sup>98</sup> The initiative and input of change should come from the programme director, who presents this to the university's committee for PME. If the committee approves, it is given to the council of the faculty to vote upon and if the change is significant, it needs the approval of the university's senate.

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<sup>97</sup> The Act of Minister of Social Affairs No. 56 of 04.06.2001 "Framework requirements of residency and procedures for conducting residency". The Act entered into force 03.02.2017, RT I, 31,01,2017, 28. Available: <https://www.riigiteataja.ee/akt/131012017028>

<sup>98</sup> University of Tartu Senate's Act nr. 2 "Regulation of residency". Ch III, sect. 30. Entry into force 26.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

There are no regulations that state the time or period when programmes should go through evaluation. Updating of the programmes depends on the available time and motivation of the programme director. Therefore, there is a great deal of unwarranted variance in the quality and timeliness of the programmes. According to the information on the Faculty of Medicine's webpage, over half of the available PME specialist programme versions were last updated in 2011.<sup>99</sup> The university representatives stated that the programme director in charge of the specialist has a wide network of specialists who they should go to in order to keep the programmes up-to-date. There are no official job descriptions or documents that would support the claim and ensure the programme directors are aware of this.

### **Latvia**

Rating: 3 / 0.92

University representatives confirmed that in their opinion the programmes are up-to-date and each year study rotations are updated with current information. Each speciality study programme in each of the universities has a study programme manager who is in charge of renewing and updating the programmes. All 106 study programme managers were approached by e-mail and a reminder and five provided an answer as to whether in their opinion the current content of the study programme in their speciality is up-to-date. They all state that the study programmes are up-to-date; moreover, some added that the programmes are in accordance with the pan-European specialities associations' current recommendations. However, some resident comments from the survey point to drawbacks: "I agree, partly, but it depends somewhat on the rotation. Some are really good, some less so. I would appreciate more qualitative, more organised, practically and clinically based teaching on the one hand and more responsibility and independence when it is appropriate. Residency programme design should be less determined by academic staff and more by clinicians.", "All the rotations are necessary during my training, but, during some of them, I feel that I learn nothing that would be suitable for my speciality."

### **Lithuania**

Rating: 2 / -0.02

Residency committees (commissions) have an opportunity to renew residency programmes yearly, but not all of them take that opportunity. Although it is worth stating that most programmes have been recently updated to meet the latest developments in their fields, however, as mentioned earlier, the reality seldom reflects the descriptions in the documents. In addition, the Centre for Assessment of Study Quality also includes the criteria of meeting the newest scientific developments in their process of assessment.

## **2.7. Renewal of the programmes is systematic and takes place in cooperation with all stakeholders**

### **Estonia**

Rating: 2 / 0.17

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<sup>99</sup> <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>, viewed on 06 August 2018

Residency committees with stakeholder representatives have been established in the Ministry of Social Affairs and Tartu University. To update the programmes, the input is obtained from the programme director of the residency programme, but there is no more detailed evidence of involvement of other stakeholders (e.g. professional associations, junior doctors). Programmes must be approved only by the council of the Faculty of Medicine in case of minor changes, or, in the case of major changes, approval of the university's senate is required. There are students' representatives in both governing bodies. The council of the Faculty of Medicine has five student representatives and one residents' representative<sup>100</sup>. This means that, technically, student representatives are involved in decision-making e.g. Tartu University senate has five student representatives, of whom two represent the Faculty of Medicine<sup>101</sup>. Although junior doctors do not have student status, the residents can approach them to communicate concerns.

In addition, the content of the programmes has never been discussed at the ministry level, only programme length. According to the junior doctors, the ministry officials do not always know who they should involve in the discussions.

### **Latvia**

Rating: 1 / -1.18

According to university representatives, the renewal of the programmes takes place before the accreditation of the study programmes (once every 6 years). However, according to the university representatives there are minor changes in the programmes every year (e.g. in the recommended literature, new technologies) and also when the requirements of Cabinet of Ministers Regulations No. 268 change; study programme managers are in charge of creating and renewing the programmes. No evidence was found on requirements to involve other stakeholders in the process of renewal of the programmes. Stakeholders expressed that there are cases when speciality associations are involved in the renewal of the programmes in cases where the programme manager is actively involved in the association, although this is not by rule.

### **Lithuania**

Rating: 2 / -0.02

The structures responsible for the periodic renewal of residency programmes are the residency programme committees (commissions), which must include a representative of the residents. However, as the research team concluded from interviews with focus groups, some of the committees do not meet regularly, if at all. The committees must include a representative for the residents. However, there have been cases where the resident takes part in the process only on paper. Nevertheless, Vilnius University noticed the aforementioned problems and is planning to implement systemic changes to ensure the proper functioning of the committees.

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<sup>100</sup> Members of the council of the Faculty of Medicine. Retrieved 22.11.2018. Available: <https://meditsiiniteadused.ut.ee/et/teaduskonnast/teaduskonna-noukogu-0>

<sup>101</sup> Members of Tartu University Senate. Available: <https://www.ut.ee/en/university/structure-and-staff/university-governance/senate> Retrieved: 22.11.2018

## 2.8. The framework of postgraduate medical education is built on the acquired outcomes of existing basic medical education

### Estonia

Rating: 3 / 1.33

A majority of 60% of residents agree with the claim that: "The skills and knowledge obtained in the basic medical education are in line with the necessary skills and knowledge of my speciality's residency programme", while 18% find it difficult to say. However, residents and trainers emphasised that students do not have sufficient practical knowledge and experience after finishing basic medical education. In interviews residents expressed that basic medical education does not cover many issues that are necessary in residency and while practising medicine (e.g. knowledge on medication dosages etc.). One resident stated: "The theoretical part of the [basic] medical training is comprehensive enough, but I believe that the practical learning outcomes of basic training should be better established and respond to the general practitioner's skills and knowledge", and another resident mentioned: "In some specialities, there is a very good approach, you get enough knowledge. However, in my speciality, the general practitioner's knowledge is very limited, because it is a very narrow area."<sup>102</sup>

The university has started to improve the quality of basic medical education in terms of increasing the proportion of practical training. Since 2016, the sixth year of basic medical education has been dedicated to practical training. Nevertheless, this can only partially fill the vacuum of the acquisition of practical skills before PME.

### Latvia

Rating: 3 / 0.92

Out of 138 residents, 12% strongly agree, 47% agree, 23% neither agree nor disagree, 17% disagree and 1% strongly disagree with the statement: "The skills and knowledge acquired during basic education of medical doctors are relevant to the skills and knowledge necessary to continue postgraduate medical training on my speciality." Residents' comments to the above statement can be divided into several groups. Most commentators believe that more practical skills should be gained in basic medical education in order to be better prepared for postgraduate education. Characteristic comments include: "I believe I received only theoretical knowledge, besides, my speciality rotation as such was very short.", "Theoretical knowledge is far-off from actual clinical practice, where cases are complicated and not easily diagnosed, especially in subjects where teachers aren't everyday practising doctors.", "There is a lack of skills to communicate and cooperate with patients, their family and colleagues.", "Theoretical knowledge is more applicable in postgraduate training. Skill-set taught in med school, not too much.", "In my opinion education was too wide-ranging. Of course, it is important to gain an idea about all specialities, but 6 years was too much. I would prefer 4-5 years' education as it was, including one research work, but also 1-2 'pre-residency' years with more training of practical skills and practical work with patients (e.g. putting in catheters, injections etc.; nursing skills to understand the whole process)." There are also respondents who argue that the broad knowledge gained in medical school is also instrumental in narrow specialities. One typical example of such comments is: "Basic knowledge of general illnesses is also important for specialists of narrow specialities, since usually the patient has

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<sup>102</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, lk 8–15. Tallinn: Poliitikauuringute Keskus Praxis.

multiple comorbidities which possibly impact his/her main illness due to which he/she currently is in the medical institution or is seeking my consultation." There were also a few respondents who expressed an opinion that the knowledge gained in specific speciality courses within basic medical education is not sufficient: "My speciality course during the basic medical education (6 years) and the internship in my university lasts around a month. So, you get just very basic knowledge of the speciality and all the rest of what you want and need to know for your future work in this field is up to you to learn depending on your level of enthusiasm.", "A week of speciality course doesn't allow you to feel comfortable continuing the postgraduate studies." In addition, recent graduates offer similar comments: "Weak course of my speciality during medicine studies" and "Our university prepares general medicine doctors, if you plan to do another specialisation the only way how to learn more is to work as a volunteer or nurse's assistant at the same field. But I think it's the right thing to do." Out of 45 supervisors, eight strongly agree with the statement, 27 agree, seven neither agree nor disagree, two disagree and one strongly disagrees. The supervisors express similar views to the residents. More practical training is needed: "Those residents who have practical skills are easy to train in the specific field." Another supervisor comments that the speciality course is too short.

### Lithuania

Rating: 3 / 1.31

On paper, the residency programmes are built based on the acquired undergraduate medical education. When asked if that knowledge is relevant to the skills and knowledge necessary to continue PME on their speciality, 50.7% of residents agreed or strongly agreed with the statement, while 32.5% either disagreed or strongly disagreed with the statement. Similarly, 57.9% of supervisors agreed or strongly agreed with the statement, while 21.1% strongly disagreed with it. When elaborating on their opinions, the respondents claimed that usually the knowledge gained during undergraduate training is not sufficient, in addition to emphasising the lack of development of practical and communication skills. As one trainee put it: "Most of it is theoretical knowledge which is of little or no use in the clinical setting. Almost no attention is focused towards communication and practical skills." A trainee added: "Some knowledge is relevant such as basic and common diseases and their basic treatment, but we did not have much experience with the medical law system and how to manage syndromes and how to communicate with the patient (skills needed in family medicine)." A supervisor also shared their opinion that: "More practical knowledge is needed, more basic skills and practical skills assessment together with theoretical background."

## 2.9. The training relies on the intended educational outcomes of the programme and the needed qualifications of the trainees

### Estonia

Rating: 2 / 0.17

Residency specialist programmes<sup>103</sup> stipulate the precise specialist knowledge, skills, and general competences the resident must have to successfully finish residency. The training is strongly reliant on the supervisors, as stated by the survey respondents and §8 sect. 3 of The Act of Minister of Social

<sup>103</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

Affairs No. 56 of 04.06.2001 "Framework requirements of residency and procedures for conducting residency"<sup>104</sup>. Around 70% of responding supervisors agree that they base their teaching on the educational outcomes and expected qualifications of the trainees. Some have mentioned that they base their training on the individual needs of the trainee and the amount of time they have available. Some supervisors also mentioned they do not have an overview of the educational outcomes the trainees are supposed to have achieved at the end of their training.<sup>105</sup> Furthermore, it has been mentioned that the supervisors teach in addition to everyday work, not as an integral part of it. Therefore, the quality of teaching often suffers due to the lack of time available to dedicate to the residents and following the PME programmes.<sup>106</sup>

The main problem that PME faces is unwarranted variance of the quality of specialist programmes. The PME is rotation-based, but only general outcomes are defined. This leads to the training and experience gained in different base training institutions being uneven and potentially insufficient. Junior doctors have mentioned that not having educational outcomes for each rotation has led to situations where trainees simply have nothing to do or are not given tasks when they are not in their specialist rotations, since neither the supervisors nor the trainees have any idea of what they should achieve at the end of the rotation.

### Latvia

Rating: 2 / -0.3

Cabinet of Ministers Regulations No. 268 of 24 March 2009 "Regulations on competency in medical treatment and volume of practical knowledge of medical treatment persons and students who are acquiring first or second level professional higher medical education programmes"<sup>107</sup> list the competency and theoretical and practical knowledge required of students in the various specialities of PME. However, as argued in standard No. 1.2., some specialities in the Regulations No. 268 are very broad. The speciality study programmes of universities are built on the abovementioned Cabinet of Ministers Regulations No. 268 – thus, they are shaped by the intended educational outcomes and attainable competencies. However, the study programmes are not publically available.

The only comments supplied by supervisors on the statement: "The learning outcomes and expected skills outlined in the residency programme serve as a basis for supervising and training the residents" range from complete agreement: "Training is always carried out in accordance with the programme." to partial agreement: "We have to work on formulating the learning outcomes. We are more focusing on competences." to pointing out weaknesses: "No real portfolio is created. Only a log book with a list of patients." While there is a supervisor who strongly states, "The successful graduation of the programme allows residents to independently, competently carry out the work in the speciality.", some residents express disagreement that the training prepares the residents for the intended educational outcomes: "Lack of standards and goals that must be reached during learning process.", "There is too

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<sup>104</sup> The Act entered into force 001.07.2018, RT I, 28.06.2018, 21. Available: <https://www.riigiteataja.ee/akt/131012017028?leiaKehtiv>

<sup>105</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 148–149. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>106</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 150–152. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>107</sup> Entry into force: 29.06.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

little opportunity to do practical work. After the 5-year residency you can't work as a doctor in my speciality because you do not have enough practice. The resident education is entrusted to people who are not interested in it.", "In summary, I believe that the training we receive in my speciality programme does not prepare us for the functions which would need to be carried out by a specialist after certification. [...] In rotations where our training has been formally carried out by other speciality doctors, the answer that I have received to my questions has been 'this is not work for your speciality' [...] It can be felt very strongly that not all doctors should train others and rarely do we end up under supervision of such a doctor who has an understanding of how to use our speciality as a resource."

### Lithuania

Rating: 1 / -1.36

As established earlier, the educational outcomes listed in the residency programmes often do not reflect the reality of postgraduate medical training in Lithuania. When asked if the overall structure, composition and duration of the programme on their speciality is sufficient to prepare competent specialists, 60.4% of residents either disagreed or strongly disagreed with the statement. Many respondents emphasised the short durations of some of the residencies, and the lack of clinical practice. When asked for some general comments about the situation in Lithuania, a trainee stated:

"The dominant feature is that the paper programme is completely different from the real education that we get."

Another trainee added:

"The quality of postgraduate medical education is highly dependent on the teaching hospital/centre and the chosen speciality. There is no gradual systematic progression in education. There is no evaluation of competencies gained during the training. Usually the trainees are thrown into the system with the hope of them not drowning. No direct supervisor for career/learning or any other kind of counselling is available."

However, when the supervisors were asked if the learning outcomes and expected skills outlined in the residency programme serve as a basis for supervising and training the residents, 81.3% of the respondents agreed or strongly agreed with the statement.

## 2.10. The educational framework of postgraduate medical education is organised in a systematic and transparent way

### Estonia

Rating: 2 / 0.17

Educational frameworks of residency specialist programmes are available on the University of Tartu's Faculty of Medicine's webpage<sup>108</sup>. The programmes list rotations and theoretical courses the trainees must pass in order to become a specialist doctor, along with additional elective courses and rotations. Nevertheless, it cannot be said the programmes are systematic and clear, because they only list the

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<sup>108</sup> <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

courses and rotations without stating the expected educational outcomes or any logical following of the rotations.

Around 50% of PME graduates agreed and 20% found it difficult to say whether medical residency has an organised structure, that the rotations follow a logical order.<sup>109</sup> The main comments were that the rotations are organised haphazardly and according to available places in different institutions and do not follow any logical progression of training. The junior doctors are, in some cases, responsible for their own planning. First year trainees frequently do not have sufficient information to independently compile their own curriculum. In addition, it has been mentioned that in several specialities there are rotations that do not seem to be relevant to the specialty, while others are lacking some that are clearly needed or expected, e.g. there is no cardiology rotation in the cardio surgery speciality.

### Latvia

Rating: 2 / 0.92

Most supervisors agree or strongly agree with the statement: "Residency is organized systematically; study cycles are in a logical sequence." Their comments range from complete agreement with the statement (e.g. "No comments. Agree to the statements.", "The program is adapted in accordance with European recommendations.") to distinguishing of incongruities (e.g. "The study courses are too short in every subspecialization with another supervisor, only one month and then resident has to change for next subspecialization and supervisor.", "The cycles of the main speciality training are more or less in a logical order, however in the sub-speciality training there is much room for improvement."). Respondents among recent graduates of residency are equally distributed between the three main types of answers (disagree/strongly disagree, undecided, agree/strongly agree). The following quotation reflects the situation in the residency: "Situation is very inhomogeneous. Although residency is organized very well in my field in my hospital, situation may be very different in other specialties and other hospitals. Quality of training during residency mainly depends on supervisor on specialty, not so much on systemic structural guidelines."

### Lithuania

Rating: 2 / -0.02

The residency programmes are renewed periodically, although there are exceptions, as the process of renewal often depends on the coordinator of the residency, who is often also the head of the Residency Programme Committee. In addition, as mentioned, even if the residency programmes are systematically renewed, it does not necessarily reflect the real situation.

## 2.11. Appropriate instructional and learning methods are applied, and integration of practical and theoretical components ensured throughout the course of training

### Estonia

Rating: 2 / 0.17

According to the responses to the claim: "In my speciality's residency programme, there is a fair balance between practice and theory" 51% of residents and 69% of supervisors agree with the claim, while 21%

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<sup>109</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Tallinn: Poliitikauuringute Keskus Praxis.

of residents and 22% of supervisors find it difficult to say. Several residents have mentioned that there is not enough time or emphasis on theoretical learning. A supervisor claimed that it: "Depends on the programme director. Practical training is just the normal work in the department, [where] I have not observed learning per se. It is, however, a matter for the departments, not for the residents."<sup>110</sup>

The policy brief based on the survey results states: "Medical residency as a form of postgraduate specialisation should focus on learning. At the same time, the residency must be integrated with service provision, i.e. residents participate in the service provision but, through this, also have sufficient learning opportunities. Residents of various specialities have indicated that, in their field, clinical work without additional learning value dominates the residency. According to the original idea of medical residency, residents should provide healthcare services and, in turn, receive teaching. In practice, however, the former sometimes occurs without the latter."<sup>111</sup>

Trainers and trainees have mentioned that the supervisors do not have the time and skills to provide proper supervision. Interviewed trainees said that supervising doctors often do not give feedback, or the trainees themselves are asked to fill out the feedback forms about themselves that the supervisors have to submit, or they are sent directly to the university without giving feedback to the trainee. One of the probable reasons stated was the lack of pedagogical training.

## Latvia

Rating: 2 / -0.3

Although 43% of the total of 120 residents agree or strongly agree with the statement: "Supervisors use instructional and learning methods that are appropriate and ensure integration of practical and theoretical components.", and 34% neither agree nor disagree, the residents' comments reveal a variety of opinions with more argumentation supporting the 23% who disagree or strongly disagree: "Depends on the supervisor.", "Some supervisors are using such methods, some not.", "The exceptional ones try." The comment that states the idea expressed most frequently, however, is: "There is a frequent lack of supervision, but when there is a certified supervisor, they are not always trained in how to educate the trainees and therefore the quality of education is very variable – some supervisors prefer not to talk much to the trainee, others like to discuss some of the aspects of the clinical cases the trainee encounters." Out of 40 supervisors who rated the statement: "I have been trained to be a supervisor in my chosen field of medicine.", 38% have not received training how to be a supervisor in their chosen field of medicine and 3 do not know. Second, the residents' comments on the statement: "The postgraduate medical training on my speciality is organised in line with my understanding of how postgraduate medical training should be provided." also stress the lack of time or interest for teaching on the supervisors' side. To give just a few of the comments in this regard: "There is lack of supervision early on in the residency because of lack of certified specialists in my field. Most of the clinical skills are not systematically taught, but the resident is expected to learn them as they go along in the residency, half the time without the supervision of certified personnel or supervised by older residents in the best-case scenario. There are many residents at the same hospital, so persons most involved in the education

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<sup>110</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 96–100. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>111</sup> [http://www.praxis.ee/wp-content/uploads/2017/02/Residentuur\\_Eestis\\_analyyis.pdf](http://www.praxis.ee/wp-content/uploads/2017/02/Residentuur_Eestis_analyyis.pdf)

process have limited time to spend with each individual resident to discuss the theory behind practice or train them in procedures/manipulations.", "Mostly I was just following the training doctor. There are few possibilities to get new practical skills or learn procedures. Some courses are too short, some too long.", "I would appreciate more qualitative, more organised, practically and clinically based teaching on the one hand and more responsibility and independence, when it is appropriate, on the other. Residency programme design should be less determined by academic staff and more by clinicians." Residents also express a lack of theoretical learning components: "In my speciality unfortunately it seems like I am learning on my own, as no help or theoretical discussion groups/sessions are provided. There is a lack of interest from the residency programme supervisor. Practical skills are easier to learn, but also based on self-initiative." Moreover, general comments by residents reveal a lack of theoretical teaching: "Lack of feedback, case studies, good-quality seminars, mentoring and support, critical scientific information reading. Most of the supervisors are not educated on how to teach residents or they are not interested, or they simply don't have time for that.", "Chaotic, low level of theoretical basis, low level of practical procedures.", "Situation varies from speciality and centre. More theoretical basis is needed in every speciality in the first years. Introduction to clinical work in hospital is needed, because currently first year residents are just thrown into clinical work unprepared."

### Lithuania

Rating: 2 / -0.02

The residency programme descriptions describe the educational outcomes, in addition to the ways and methods to acquire them, including clinical work and various seminars. Unfortunately, the educational outcomes, both concerning the practical and theoretical set of skills, are often only reached on paper. In addition, when asked if supervisors use instructional and learning methods that are appropriate and ensure integration of practical and theoretical components, 40.3% of the trainees disagreed or strongly disagreed with the statement, the majority of them mentioning that the quality of education strongly depends on the supervisor's personality and willingness to teach. In addition, the requirements for resident supervisors only include being a university employee and/or a doctor with at least 5 years of experience. Having been trained to become a supervisor is not included in the requirements. When asked if they have been trained to be a resident supervisor, 40.9% of supervisors either disagreed or strongly disagreed with the statement. A supervisor explained:

"If this means 'supervisor of residents', I haven't been trained as a supervisor. Working in a university hospital as a faculty member means – you are a supervisor."

## **2.12. Trainee-centred approach is used that stimulates, prepares and supports trainees to take responsibility for their own learning process and to reflect on their own practice**

### Estonia

Rating: 1 / -0.99

Conflicting evidence has been found regarding trainee-centeredness of PME. Approximately 45% of residents think that PME is organised in a way that considers their individual needs and wishes. They emphasised that the rigidity of the system, especially leave-taking options, reduces the motivation to

study and conduct medical research.<sup>112</sup> It was brought up that too much time is being spent observing supervisors, especially during non-specialist rotations, which is not considered to provide sufficient understanding and practical experience.<sup>113</sup> The interviews revealed that the trainees often do not receive supervision, and with very limited or no feedback.

According to Ch. VI sect. 42 of University of Tartu Senate's Act No. 2 "Regulations of Residency"<sup>114</sup> "The resident is required to keep a residency diary reflecting the completion of theoretical training of the resident and the acquisition of practical skills in accordance with the individual curriculum and the residency programme." However, residents mentioned that the current diary system is outdated and does not fulfil its purposes.<sup>115</sup> The diary functions as a paper record where the trainee notes down all the procedures performed, etc., but it does not in any way involve formative self-assessment or reflections on their own practice and, according to residents, it is a formal requirement without clear purpose (e.g. supervisors sign it without reading it; resident diaries are collected by the university, but the information is not analysed). Thus, it can be claimed that there is scant evidence the PME meets the standard. It has been mentioned that a few progressive programme directors are trying to implement newer, more effective, methods.

### Latvia

Rating: 1 / -1.18

In the survey residents present several issues that endanger a trainee-centred approach in PME. One issue that stands in the way of a trainee-centred approach is the view held by some supervisors that residents are their future competitors and might take their own place in the hospital in a few years' time: "In Latvia the main problem with residency is the problem that people do not teach the residents. The attitude towards residents from the beginning is that of towards competitors.", "Although most supervisors gladly work with residents, you can feel some limits of their responsiveness. Some have even told us that we are their future competitors, which I think is nonsense." The doctors' workload in the hospital also stands in the way of residents being in the centre – residents claim that often they are given mundane daily tasks instead of encouraged to learn: "The quality of study rotations depends on each supervisor. In many cases the resident serves as a secretary to fill out the paperwork, and an insufficient amount of time is dedicated to the discussion of clinical cases and integration of theory into clinical practice. Some rotations are supervised very strongly, and the resident is not involved in the decision-making, but in some other rotations there is little or no supervision.", "Supervisors have no time for supervision. The residents are usually working and making decisions alone without supervision and no feedback.", "Old fashioned, rigid. More work and filling in for the teaching doctors, less learning/teaching." There are also comments that state that trainees are not prepared, stimulated and supported to take responsibility for their own learning: "Everyone for himself – rarely do doctors teach residents. If you want the knowledge, you must read yourself (which is normal), but residents who don't read are treated the same as educated residents. There is no incentive to learn additionally.", "The

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<sup>112</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, lk 120-123. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>113</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, lk. 138–143. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>114</sup> Entry into force 26.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>115</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, lk. 159–181. Tallinn: Poliitikauuringute Keskus Praxis.

trainees can learn a lot, because they mostly do a lot of the doctors' work, often very independently. But guidance, supervision and feedback are lacking. Also, the financial situation forces trainees to have at least one other job, so there is not enough free time to study theoretically and recreate.", "Because of the general lack of certified doctors/supervisors residents are frequently left on their own in the clinical setting, thus not only lowering the quality of education, but also endangering patient safety. There is a strong tradition that the resident should be able to manage on their own and only the newest generation of supervisors are bringing more interaction during clinical training." One junior doctor mentions limits to access information of interest: "Your education is in your hands (which is good). No one can force you to become competent. But you always have to balance your interests with the limits you can squeeze out of the system. Sometimes if you really want to learn something or become competent in something, you won't be able to find someone willing to teach you. The hope is to find a small field to master, one that can feed you after you graduate. The real studying actually starts when you get your diploma and finally have the time to go to courses and become competent in the field you actually like."

### **Lithuania**

Rating: 1 / -1.36

Even though the residency programmes talk about nurturing the residents to systematically increase their knowledge and abilities, when asked about their general opinions towards PME, many residents brought up the status of the trainee, as they are often solely regarded as an extra workforce. As one trainee put it:

"Postgraduate medical education is rarely centred on what resident really needs but mostly on what is beneficial for the hospital. A lot of time is wasted on non-medical duties and residents are not treated as equal fellow doctors".

"We are technically students (and workers), but even if there is the 'studying' part, it is often done by residents themselves (resident to resident). In many departments, residents are being used as a cheap (free, really) labour force to fill papers and such (highly prevalent in the surgical department). You are thrown into a workplace and have to figure out how to work there, with some guidance provided. In many departments, residents work extra hours for no pay, or work the next day after a 24h shift (often paperwork)."

This is partially related to the fact that due to the overwhelming amount of bureaucracy within the healthcare system. Supervisors often do not have the time to properly teach the trainees. When asked if their supervisors have/had time for supervision and teaching, 47.9% of residents disagreed or strongly disagreed with the statement, some adding that the time dedicated to teaching also depends on the supervisor. As one trainee put it:

"It depends on the supervisor – some would make time even if there is physically no time at all."

## **2.13. Gender, cultural and religious specifications are recognised by the programme provider(s) and trainees are prepared to interact appropriately**

### **Estonia**

Rating: 2 / 0.17

Over 65% of residents do not agree with the claim: "During residency I was instructed to prevent and solve communication problems or (potentially) conflict situations arising from gender-, culture- or religion-related differences." and approximately 15% find it difficult to say. Residents said that the topic has a very marginal or even non-existent part in PME, and it depends very much on the supervisor/trainer.<sup>116</sup> Only paediatric (including additional specialities) residency programmes bring up the following in sect. 20 point 6 that is related to the standard: "[Physician] is able to work efficiently in case of emergency to deal with diseases/conditions and knows how to handle special situations in a condition if a child's life is threatened (e.g. Jehovah's Witnesses)".<sup>117</sup> Many of the supervisors themselves have not had training in this area. Moreover, many of those teaching such topics lack the required teaching skills.

The university's representatives added that the topics mentioned in the standard are focused upon in basic medical education. Currently, a course of patient-centred communication takes place during the autumn semester of the third year of basic medical education (which only started in the 2015/2016 academic year<sup>118</sup>), when students do not yet have sufficient context to understand and implement the topic. Furthermore, the semester is very intense due to several pre-clinical subjects, and there is a real danger that the students do not achieve all the required learning objectives. Moreover, conflict prevention and communication skills teaching should be implemented into PME. It is more relevant when the residents are already doing clinical work.

### Latvia

Rating: 2 / -0.3

Around 42% of 120 residents agree and strongly agree, 31% neither agree nor disagree, and 27% disagree or strongly disagree with the statement: "The trainees are prepared to recognise gender, cultural and religious specifications and to interact appropriately." As can be seen, the statement itself does not include a link to the programme providers – whether this preparedness to recognise the above specifications of patients stems from actions of the programme providers or the preparedness of trainees themselves. Most comments by residents point out that there have not been systematic efforts within the programme to prepare them to recognise gender, cultural and religious specifications: "Well I am prepared, but it has nothing to do with the residency programme.", "There is no such training, the trainee is expected to gain these skills on their own.", "Issues not addressed at all!", "Depends on the trainee." One resident commented: "That is not very popular and necessary in Latvia. We are not very cosmopolitan." And in a way this commentator is right – the differences between the genders are recognised in medicine as a whole and the vast majority of minorities (Russians, Belarussians, Jews, Poles, etc.) living in Latvia are culturally close and/or easily understandable to the junior doctors. Besides, there is only one main religion, Christianity, with other religions represented in very small numbers. However, these views could potentially also reflect some rigid thinking and a future workforce could face different minorities and cultural difficulties that they are ill-prepared to encounter. The answers provided by residents point to the view that these issues are not included in the programmes.

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<sup>116</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 113–115. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>117</sup> Available: <https://meditsiiniteadused.ut.ee/sites/default/files/med/pediaatria4a2011.pdf> and <https://meditsiiniteadused.ut.ee/sites/default/files/med/ped-res-programm-2012.pdf>

<sup>118</sup> Curriculum of Medicine. Available in The University of Tartu Study Information System.

However, because there are 42% residents who agree with the statement, it could be that in some programmes or with some supervisors they are recognised within the daily operations of PME.

### Lithuania

Rating: 1 / -1.36

The development of some of these so-called 'soft skills', if at all, is included into the residency programmes. However, when asked if the trainees are prepared to recognise gender, cultural and religious specifications and to interact appropriately, 48.6% of the respondents either disagreed or strongly disagreed with the statement, adding: "Our population is still quite homogenous, so we lack experience in interacting with different cultural and especially religious specifications." and "The ability to recognise gender, cultural and religious specifications depends solely on you, if you had experience abroad or have read a lot".

## 2.14. The foundation and methodology of medical research, including clinical research and clinical epidemiology are introduced in the programme

### Estonia

Rating: 2 / 0.17

A slim majority of 56% of residents and 58% of supervisors agree with the claim: "Scientific approach has a central role in my field of residency. Medical research, including the basics of clinical research and clinical epidemiology have been tackled.", while 15% and 24% accordingly disagree. A resident observed that: "Scientific approach is definitely central. It usually requires the resident to read treatment guidelines/recommendations and articles. The supervisor rarely directs us towards new articles to read." Several residents and a supervisor mentioned that an intuitive approach is still preferred, and experience-based learning remains central. Research is thought to be something that is part of PhD studies.<sup>119</sup> In family medicine residency, designing and presenting a research project is obligatory.<sup>120</sup> Although medical research and methodology are taught in basic medical education<sup>121</sup>, due to a lack of prior knowledge and relevant experience, the students might not be able to learn everything that will be needed later.

Junior doctors mentioned in the interviews that they are encouraged to read journal articles and present cases, but, since they mostly have to do it in their free time, the quality is lacking. However, in some residency programmes there are weekly meetings where the residents have to present articles and discuss them with others. While residents value the knowledge and discussion, the main problem is that there is usually no time allocated for it during their working hours. They also mentioned that doctoral studies are very difficult to combine with PME, since there is no option of taking them part time. It was also mentioned that involving medical research with PME is also difficult due to the lack of research experience of many supervisors. Few PME programmes have included training in medical research, although this should be made available to all residents.

<sup>119</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 87–91. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>120</sup> Family medicine residency programme. Available: [https://meditsiiniteadused.ut.ee/sites/default/files/med/peremeditsiini\\_residentuuriprogramm\\_2016\\_2.pdf](https://meditsiiniteadused.ut.ee/sites/default/files/med/peremeditsiini_residentuuriprogramm_2016_2.pdf)

<sup>121</sup> Curriculum of Medicine. Available in The University of Tartu Study Information System.

## Latvia

Rating: 2 / -0.3

A supervisor commented on the statement: "Throughout postgraduate medical training, trainees achieve knowledge of and the ability to apply the scientific basis and methods within their chosen field of medicine; the foundation and methodology of medical research in their chosen field of medicine, including clinical research and clinical epidemiology are introduced provided that the residents achieve abovementioned knowledge by creating a scientific research work.", by stating "At the end of the studies residents create an independent research work and defend it in front of a commission." According to the Rīga Stradiņš University's "Residency Studies Rules of Procedure"<sup>122</sup>, and "University of Latvia's Residency Regulations"<sup>123</sup> residents in both universities are required to complete a scientific research study during their PME. Nonetheless, residency organisers state during the discussion that the quality of resident's scientific research work is dependent on the supervisor's research experience. Thus, the amount of knowledge residents receive through research differs: 43% of 120 residents agree or strongly agree, 28% neither agree nor disagree, and 28% disagree or strongly disagree with the aforementioned statement. Residents' comments on the above statement reveal a variety of experiences. One resident commented that it is a part of residency during the first years: "All the knowledge is in the first years of medical training. In later years there is no information.", while another states the opposite: "Not yet so far in the first 6 months in residency. Very limited knowledge of research in my speciality." Another comments that the course provides general knowledge: "There is a brief course in statistical data analysis, but it is not specific to the chosen field." Others suggest that this knowledge is obtained by personal initiative: "It depends on the motivation level and interest of the trainee.", "It is rather due to "learning by doing" as resident research work is mandatory for finishing training. But some seminars/consultations for this purpose would really be helpful.", "...also very few of supervisors are conducting research.", "I learned all this during my Erasmus exchange.", "But it is gained by your own motivation. In our medical education we really skip the part where someone professional could give us lectures about types of research, explaining basic information and introducing the resident to evidence-based medical studies." Recent graduates' answers on the statement provide a similar reasoning: "It is up to the person. If the resident wants it, he can do it. But they have to do it by themselves – no one helps. If the resident reads something and asks questions, doctors might help him.", "On my own.", "Yes we are encouraged to study science if we have time."

## Lithuania

Rating: 2 / -0.02

The foundations of medical research were taught during the undergraduate medical education. However, further education on this topic depends on the residency programme. When asked whether, throughout postgraduate medical training, trainees achieve knowledge of and the ability to apply the scientific basis and methods within their chosen field of medicine; the foundation and methodology of medical research in their chosen field of medicine, including clinical research and clinical epidemiology,

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<sup>122</sup> Approved in Rīga Stradiņš University Senate on 15.05.2018, Retrieved 30.07.2018, Available: [https://www.rsu.lv/sites/default/files/imce/Dokumenti/studijas/Rezidenturas\\_studiju\\_reglaments\\_II-29.05.2018..pdf](https://www.rsu.lv/sites/default/files/imce/Dokumenti/studijas/Rezidenturas_studiju_reglaments_II-29.05.2018..pdf)

<sup>123</sup> Approved in University of Latvia Senate on 28.11.2005, Retrieved 30.07.2018, Available: <https://www.lu.lv/gribustudet/rezidentura/dokumenti/>

are introduced, 37.7% of trainees both (strongly) agreed and (strongly) disagreed with the statement. Some emphasised the poor quality of research: "Yes, but the quality is rather low, as the process is chaotic and concentrates on quantity, not quality of output and research," and "There is no competent person to teach that."

Unfortunately, some residents did not have the opportunity to deepen their knowledge on the subject: "We had to do a research project for the end of residency, but we had no extra lectures about epidemiology, statistics, etc." and "We are told to do science, yet no one explains how and where to do so."

### **2.15. The programme and process of training ensures that the trainee becomes familiar with evidence-based medicine through exposure to a broad range of relevant clinical/practical experience in different settings in the chosen field of medicine**

#### **Estonia**

Rating: 3 / 1.33

The main focus of these topics lies in basic medical training. All basic medical training graduates must have achieved the study outcomes stated in the curriculum. Outcomes relevant to this standard are that the graduate:

- 7) is capable of working in the healthcare system and feels the need for continuous improvement of their knowledge and skills;
- 8) is able to assess the psychological and social aspects of a patient's illness and treatment and knows the peculiarities of communication with different parties in medicine;
- 9) is able to search and critically evaluate evidence-based information and use evidence-based information in clinical practice;
- 10) understands the nature of the scientific method, knows the principles of laboratory work and statistical analysis and is able to perform independent research;
- 11) understands the principles of medical ethics and medical law and applies them in clinical practice.

Although most of the courses focusing on these topics are elective (e.g. courses such as statistics and medical ethics are obligatory, but introduction to medical research is not), it is difficult to definitively state the level of knowledge of graduates regarding these outcomes as many of these are not measured<sup>124</sup>.

Regarding the practice in different settings, the characteristics of the Estonian health system must be considered. For example, it is not feasible to carry out rotations in county hospitals in certain narrow specialities due to the lack of supervisors and patients in the field.

#### **Latvia**

Rating: 3 / 0.92

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<sup>124</sup> Curriculum of Medicine. Available in Tartu University Study Information System

Both university representatives confirm that, in general, the programme and process of training ensures that the trainee becomes familiar with evidence-based medicine through exposure to a broad range of relevant clinical/practical experience in different settings in the chosen field of medicine. All 106 study programme managers in both universities were approached by an e-mail and a reminder and five provided an answer in e-mail and one in an interview confirming that in most situations the above statement holds true. In addition, Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>125</sup>, Articles 12 to 14 require that at least a part of the residency programme needs to be attained in a hospital or healthcare institution which is not the main training institution for the resident (an issue discussed in more detail in standard 2.22.) However, a resident's comment from the survey expresses a different opinion: "Unfortunately, in our clinic 'evidence-based' is less valued than it should be. There are a lot of inconsistencies of medical treatment. Evidence-based is used when convenient. It's very hard to change that."

### Lithuania

Rating: 3 / 1.31

When asked if the programme in their chosen field of medicine includes clinical work and relevant theory or experience of clinical decision-making, 61% of residents either agreed or strongly agreed with the statement. However, some mentioned the overall lack of evidence-based decisions in the hospital. As one trainee explained:

"Sometimes there are too many opinions of different supervisors on a specific decision. This comes from a lack of protocols and algorithms that would be approved by our department, and sometimes also a lack of evidence-based decisions."

## 2.16. The content of the programme is adjusted to scientific developments

### Estonia

Rating: 1 / -0.99

Residency specialist programmes' goal<sup>126</sup> stipulates: "[resident] is capable of providing high-quality specialised medical care in the field of [speciality] that is in line with the latest achievements of medical science and high ethical standards". The updating of the programmes depends on available time resources and motivation of the programme director. Therefore, there is a considerable amount of unwarranted variance in the quality of training and whether the programmes are up-to-date and it cannot be claimed that all the programmes are adjusted to scientific developments. It was revealed from the focus groups that the organisers of PME consider that the residents should keep themselves up-to-date by reading journal articles and treatment guidelines, but often this is performed during the trainees' free time. Thus, the compliance with this standard is highly dependent on several factors and is not met by every specialist programme.

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<sup>125</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

<sup>126</sup> sect. 20 No. 1 available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

## Latvia

Rating: 4 / 1.96

According to the views expressed by stakeholders – representatives of both universities and several study programme managers (106 approached by e-mail, but five answered by e-mail and one in an interview), the content of the programme is adjusted to scientific developments and the resources available to the healthcare institutions are also considered. Several study programme managers and supervisors from the survey indicate that study programmes in their fields have been updated in accordance with recommendations of the European speciality associations within their field.

## Lithuania

Rating: 2 / -0.02

Residency committees (commissions) have an opportunity to renew residency programmes yearly, but not all of them take this opportunity. Although it is worth saying most programmes have been recently updated to meet the latest developments in their fields, as mentioned earlier, the reality seldom reflects the descriptions in the documents. In addition, the Centre for Assessment of Study Quality also includes the criteria of meeting the newest scientific developments into their process of assessment.

### **2.17. The programme includes clinical work and relevant theory or experience of basic biomedical, clinical, behavioural and social sciences, preventive medicine, public health, medical jurisprudence, managerial disciplines**

## Estonia

Rating: 2 / 0.17

The focus on these topics is within basic medical training. All basic medical training graduates should have achieved study outcomes stated in the curriculum. Outcomes relevant to this standard are that the graduate:

7) is capable of working in the healthcare system and feels the need for continuous improvement of their knowledge and skills;

8) is able to assess the psychological and social aspects of a patient's illness and treatment and knows the peculiarities of communication with different parties in medicine;

9) is able to search and critically evaluate evidence-based information and use evidence-based information in clinical practice;

10) understands the nature of the scientific method, knows the principles of laboratory work and statistical analysis and is able to conduct independent research;

11) understands the principles of medical ethics and medical law and applies them in clinical practice.

Courses focusing on these topics are generally elective. Therefore, it is difficult to say what the level of knowledge the graduates have obtained would be, since it is not assessed.<sup>127</sup> Emphases on medical

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<sup>127</sup> Curriculum of Medicine. Available in Tartu University Study Information System

jurisprudence and managerial disciplines in PME are taught as a part of theoretical studies in only a few specialities<sup>128</sup>.

Students in basic medical education are given a strong foundation in biomedical and clinical sciences, since the first 3 years of basic medical education are strongly focused on these topics. The background is significantly weaker in behavioural and social sciences, preventive medicine, public health, medical jurisprudence and managerial disciplines, because these subjects are mainly elective and their importance is not sufficiently highlighted. According to the university's representatives, they are prepared to organise (theoretical) training on topics if junior doctors request it, but interviews revealed that junior doctors are not aware of this option. Furthermore, focus groups revealed the need for these subjects in everyday working life, but social subjects and so-called 'soft skills' are treated as irrelevant by supervisors and older colleagues.

### Latvia

Rating: 2 / -0.3

The speciality programmes are neither available to the public in Rīga Stradiņš University nor the University of Latvia. All 106 study programme managers in both universities were approached by e-mail. Out of six study programme managers (five answered by e-mail and one in an interview), five confirm that the programme in their speciality covers clinical work and relevant theory or experience of basic biomedical, clinical, behavioural and social sciences, preventive medicine, public health, medical jurisprudence as relevant for their speciality. One study programme manager stated that these issues are partly covered. In the interview process a university representative and another study programme manager revealed that management skills training is not included in the programme and it is necessary to include them. The study programme manager added that preventive medicine, public health, and medical jurisprudence are also not included in study programme in his/her field and it would be necessary to include them.

### Lithuania

Rating: 2 / -0.02

The residency programmes include a significant amount of clinical work. However, medical jurisprudence, preventive medicine, public health and managerial disciplines are usually covered during undergraduate medical education, very rarely are these topics included into residency programmes. According to the survey, some residents feel the lack of knowledge in these areas. As one trainee stated:

"The programme is quite good, but there was a lack of seminars about law regarding my speciality; rules for filling various types of medical documentation."

## 2.18. The programme includes clinical work and relevant theory or experience of clinical decision-making, medical ethics and patient safety

### Estonia

Rating: 2 / 0.17

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<sup>128</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

Conflicting evidence exists: the topics are mentioned in PME programmes, but the survey results give reasons to believe that it is not implemented in real life. Section 20 (study goals) No. 2 of residency specialist programmes states that the: "[physician] has the attitudes necessary for the vocation, sufficient professional knowledge, skills and clinical experience". Point No. 3 states that the physician "knows and adheres to the principles of scientific ethics, medical ethics and evidence-based medicine."<sup>129</sup>

Around 40% of residents and over 55% supervisors agree that the aspects related to the autonomy of a doctor are sufficiently managed during the residency, including the right to make informed medical decisions which are best for the patient and society, while over 25% of residents and approximately 30% supervisors find it difficult to say. Approximately 35% of residents and over 55% supervisors agree that during the residency the professional aspects of being a doctor are managed: skills for lifelong learning and maintaining competency, ethical behaviour, altruism, empathy, ability to work with others, compliance with ethical codes, patient safety, while approximately 25% of residents and 30% supervisors find it difficult to say. Respondents have brought up the lack of systemic approach to the topic. It varies and is strongly dependent on the base institutions and supervisors. Thus, these subjects should be taught to all trainees in a systematic way.

### Latvia

Rating: 3 / 0.92

The speciality programmes are neither available to the public in Rīga Stradiņš University nor the University of Latvia. In this regard, 16% out of 119 residents strongly agree, 54% agree, 20% neither agree nor disagree, and 10% disagree with the statement: "The programme in my chosen field of medicine includes clinical work and relevant theory or experience of clinical decision-making." The comments reveal that the inclusion of the theory of clinical decision-making depends on the supervisor: "Very dependent on supervisor.", "It's only clinical work. It is mostly self-education.", "Something you pick up along the way. More like self-learning.", "I'd like to have more possibilities to be involved in outpatient management rather than in Clinical University Clinics, however, there are no such possibilities in Latvia.", "Only if we ask for it from older doctors." Recent graduates are positive about the clinical experience received - there are no evaluations of "disagree" or "strongly disagree" amongst the 18 who answered to this question. One respondent explains that: "You see a lot of complex cases in the university hospital – it prepares you for real life." Since there is a high agreement rate amongst residents and an even higher one amongst recent graduates, the rating given here is 3, since there are still comments expressing that it depends on the supervisor or the motivation of the trainee to learn on their own, or that the different settings used could be expanded. The University of Latvia's "Overview of study branch "Healthcare" for 2016/2017" chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>130</sup> mentions that the PME education aims to "teach principles of medical ethics and deontology to be used in their professional work." It was confirmed by the University

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<sup>129</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>130</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

of Latvia's representative that all residents have a common lecture course on medical ethics and patient safety. Rīga Stradiņš University's "Characterisation of study programme. Second level professional higher education study programme "Residency in Medicine" for 2015/2016"<sup>131</sup> lists, amongst the tasks of the study programme, "To deepen understanding of issues of biomedicine, ethics, communication skills." A representative of Rīga Stradiņš University informed that medical ethics and patient safety are offered as optional lectures and seminars to the residents.

### Lithuania

Rating: 2 / -0.02

The residency programmes sometimes mention medical ethics and patient safety in the descriptions. However, when asked whether the aspects related to the professionalism of the doctor are addressed during postgraduate medical training, i.e. skills of lifelong learning and maintenance of competencies, ethical behaviour, altruism, empathy, service to others, adherence to professional codes, consideration of patient safety, 37.7% of residents disagreed or strongly disagreed with the statement, while 67.5% of supervisors agreed or strongly agreed with it. As one trainee put it:

"The issues are only addressed retrospectively, when problems start to appear or accumulate. Ethics, empathy, professional codes are largely ignored – of course, individual supervising doctors (mentors) sometimes pay attention to that, but not systematically."

Another trainee added:

"Soft skills are mostly ignored with most attention paid to medical expertise/knowledge."

## 2.19. The programme includes clinical work and relevant theory or experience of communication skills, doctor's self-care and the interface with complementary medicine

### Estonia

Rating: 1 / 0,12

All programmes in sect. 20 set as a goal: "...[resident] is able to conclusions drawn from the medical knowledge and communicate it to patients, colleagues and the general public". Programmes<sup>132</sup> do not mention interface with complementary medicine other than the availability to co-operate with other healthcare professionals e.g. physiotherapists, nurses, midwives. There is no mention of doctor's self-care.

Only 32% of residents think that sufficient attention is spent on teamwork with other healthcare professionals and 35% think that sufficient attention is spent on teamwork with other doctors. A large majority of 75% of respondents stated that they have never had access to competent counselling on career planning, burning out or solving conflict situations with colleagues.<sup>133</sup> The junior doctors mentioned the lack of education on communication and self-care. They also mentioned that, if you

<sup>131</sup> Released 15.08.2016, Retrieved 30.07.2018, Available: [https://www.rsu.lv/sites/default/files/docs/Rezidentura\\_medicina\\_raksturojums\\_2015-16rev.pdf](https://www.rsu.lv/sites/default/files/docs/Rezidentura_medicina_raksturojums_2015-16rev.pdf)

<sup>132</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>133</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1. Tallinn: Poliitikauuringute Keskus Praxis.

happen to be given a very good supervisor, then they might teach these skills, including self-care, but other than that, these are skills that are considered by superiors to be something that should be obtained while working.

### Latvia

Rating: 2 / -0.3

Both Rīga Stradiņš University in "Characterisation of study programme. Second level professional higher education study programme "Residency in Medicine" for 2015/2016<sup>134</sup> and the University of Latvia in "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>135</sup> list communication skills amongst the intended educational outcomes of the programmes. Of 123 residents, 38% agree or strongly agree with the statement: "During postgraduate medical training, systematic attention is paid to developing skills to communicate with colleagues, other healthcare professionals, patients and their relatives." while 28% neither agree nor disagree, and 33% disagree or strongly disagree. Interestingly, all the responses that residents provided to the above statement are negative. They range from comments stressing that communication skills are not taught: "Sadly, nobody teaches that to you; you either have the natural ability to communicate or you don't.", and "The trainee is expected to develop these skills on their own." to "Yes, but again it is all in the "good example" rather than lectures.", which implies that it would depend on the supervisor whether this example is provided, and to: "If you make a mistake in communication you will be informed. 'Systematic' or 'development' are not the words I would use." Recent graduates' comments are in line with the comments provided by the residents, reiterating that training in communication skills is lacking: "No training on this.", "It is up to the person.", "Not in my speciality. Maybe in others, I don't know." Somewhat validating this, a couple of supervisors agree with residents: "I think we need behaviour training." and "In my speciality residents don't have to communicate with patients too often." However, another two supervisors disagree, pointing out: "These issues are reflected in lectures and seminars organised by the university." as well as "Communication is one of the most important chapters in the postgraduate training." While 38% residents agree or strongly agree with the statement and there are two supervisors who argue that training in communication skills is provided and, based on a comment, there are supervisors who teach by example, 33% residents disagree or strongly disagree with it and there are only negative comments by residents. Therefore, the evidence is mixed and is rated with 2. Stakeholders mentioned in interviews that doctors' self-care and complementary medicine are not specifically included in the programmes but could be brought up by a good supervisor in case of need. Consequently, it seems that these skills are, at least, not systematically taught to all trainees.

### Lithuania

Rating: 2 / -0.02

<sup>134</sup> Released 15.08.2016, Retrieved 30.07.2018, Available: [https://www.rsu.lv/sites/default/files/docs/Rezidentura\\_medicina\\_raksturojums\\_2015-16rev.pdf](https://www.rsu.lv/sites/default/files/docs/Rezidentura_medicina_raksturojums_2015-16rev.pdf)

<sup>135</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

Communication skills are often mentioned in the descriptions of the residency programmes; however, the research team did not manage to find a document that even mentions the importance of doctors' self-care or the interface with complementary medicine. Since the lack of knowledge in good communication and proper self-care have previously been noted, there have been several one-off occasions where the residents have had lectures on these topics, but these are usually organised by medical non-governmental organisations, not the universities. Fortunately, some leading residency programmes are now starting the formal teaching of communication skills.

## 2.20. The training has an apprenticeship nature of professional development integrating training and service

### Estonia

Rating: 2 / 0.17

As stated in §2 of The Act of Minister of Social Affairs No. 56 The purpose of residency is to prepare vocationally and professionally competent specialist physicians through theoretical and practical training. §5 sect. 3 Individual curriculums must include theoretical training at the university and practical training in the base institution. Theoretical training is up to 20% and practical training is at least 80% of the total amount of the residency.<sup>136</sup> All medical residents have on-call duties in the capacity stated in residency specialist programmes (sect. 22 and sect. 24)<sup>137</sup>. However, it has been stated in the interviews that often the service part exceeds the educational part due to the lack of labour force. Supervisors have mentioned they lack the time to properly teach residents; they must do it in addition to their everyday work<sup>138</sup>.

### Latvia

Rating: 2 / -0.3

Formally, yes, the training has an apprenticeship nature of professional development integrating training and service. Each trainee is assigned a supervisor, and, according to Cabinet of Ministers Regulations<sup>139</sup> No. 685, article 17, no more than three trainees can be assigned to a particular supervisor at the same time. However, multiple comments submitted in the survey by residents attest that in practice the balance depends on whether the supervisor has time – numerous residents state that their supervisor does not have time to teach and in some cases lacks interest in teaching him/her. For illustration just one of several similar comments claims: "In my speciality there is not enough guidance and adequate supervision. Most doctors don't have time to guide us. Mostly we are left by ourselves trying to learn the basics of our speciality." There are many other similar comments that can be seen in the argumentation for the other standards; they express the same idea – limited supervision. If the trainer is not present, naturally the training loses its apprenticeship nature. Besides, as described

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<sup>136</sup> The Act of Minister of Social Affairs No. 56 of 04.06.2001 "Framework requirements of residency and procedures for conducting residency". The Act entered into force 01.07.2018, RT I, 28.06.2018, 21. Available: <https://www.riigiteataja.ee/akt/131012017028>

<sup>137</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>138</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 150–152. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>139</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

in the argumentation of standard 2.24, the service currently dominates over education in residency in Latvia. Therefore, the rating is 3 – formally the training has the apprenticeship nature; however, lack of supervisors' presence and a dominating service position can make the apprenticeship nature non-existent.

### Lithuania

Rating: 2 / -0.02

The residency programme descriptions include the proportion of time a trainee is supposed to spend performing clinical work and studying. However, in reality, the situation depends on the specific residency programme. According to the results of our survey, in reality the "clinical work" part of the programme often includes residents covering for tasks that the supervisor has no time or willingness to perform. In addition, the quality of supervision is often somewhat poor and lacks structure. As one resident noted in the general comments:

"We are technically students (and workers), but even if there is the 'studying' part, it is often done by the residents themselves (resident to resident). In many departments, residents are being used as cheap (free, really) labour force to fill papers and such (highly prevalent in the surgical department). You are thrown into a workplace and have to figure out how to work there, with some guidance provided. In many departments, residents work extra hours for no pay, or work the next day after a 24h shift (often paperwork)."

Another resident added:

"Two university hospitals have a monopoly on postgraduate medical training. There are absolutely no standards or competencies that a resident needs to demonstrate during his training. There is a final exam at the end of the residency programme which is purely theoretical knowledge based. Universities take no responsibility for the quality of the specialist that they prepare."

## 2.21. The PME prepares trainees for all the roles of a doctor in the health sector

### Estonia

Rating: 2 / 0.17

Residency educational outcomes describe preparation for all the roles of the doctor<sup>140</sup>. However, residents have pointed out that the residency programme does not pay sufficient attention to skills such as communication, teamwork, feedback, management, lifelong learning, etc. One of the interviewees indicated that the university is ready to organise training sessions when residents take the initiative. However, residents were unaware of such opportunities and no previous training sessions on this have been offered. Focus group interviews revealed that, in reality, no systematic courses take place. There are some courses organised for a few specialities, but the lack of theoretical training directed at trainees is visible. Several residency programmes state that the trainees have to undertake a certain amount of European Credit Transfer and Accumulation System credits for theoretical courses, but these are the same as are read as electives in basic medical education.

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<sup>140</sup> Residency programmes. Sect. 20. available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

## Latvia

Rating: 3 / 0.92

Rīga Stradiņš University in "Characterisation of study programme. Second level professional higher education study programme "Residency in Medicine" for 2015/2016"<sup>141</sup> within the intended educational outcomes additional to medical knowledge mentions: "[Resident] is able to work in the healthcare system, as well as in medical education and research." Similarly, University of Latvia in "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>142</sup> amongst the intended educational outcomes lists: "Is able to apply their acquired knowledge by not only working in clinical positions, but also in healthcare organisation, research and education." The clinical functions of a doctor are discussed in other standards and there are shortcomings, but in general the researcher concludes that the PME does prepare the junior doctors to fulfil the medical treatment functions. Rīga Stradiņš University's "Residency Studies Rules of Procedure" states in article 3.1.5. that pedagogical work is a mandatory component of residency. The University of Latvia's representative stated during the interview that the university is considering making pedagogical work mandatory for its residents.

Every resident in Latvia has to complete his or her own scientific work, so while there could be improvements, every resident is taking on the role of a researcher during residency.

The University of Latvia's representative states that management skills are not currently included on a satisfactory level in all speciality study programmes. Rīga Stradiņš University's representative states that management skills training is offered as an optional course to those residents who are interested in it.

## Lithuania

Rating: 2 / -0.02

Current residency programmes lack the proper teaching of the necessary soft skills, such as management, teamwork, communication, feedback, advocacy, patient safety and others. As one resident put it:

"There is not enough attention for competences and skills during every year of training. Too little teaching and guidance in the field of research. There is no attention at all paid to communication skills and the psychological state of residents."

Since this problem has been a concern for the stakeholders for some time now, there has been a proposal to implement soft skills training into all residency programmes. Starting next year, the Lithuanian medical education system will be organised based on EPAs (entrustable professional activities), which will hopefully enable the residency programmes to pay better systematic attention to the skills necessary for every role of a doctor.

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<sup>141</sup> Released 15.08.2016, Retrieved 30.07.2018, Available: [https://www.rsu.lv/sites/default/files/docs/Rezidentura\\_medicina\\_raksturojums\\_2015-16rev.pdf](https://www.rsu.lv/sites/default/files/docs/Rezidentura_medicina_raksturojums_2015-16rev.pdf)

<sup>142</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

## 2.22. The trainee is exposed to a broad range of experiences, including multi-site education and adequate exposure to different aspects of the chosen field of medicine

### Estonia

Rating: 3 / 1.33

Residency rotations take place in different base hospitals/departments, which are stated in residency programmes<sup>143</sup>. The content and duration of residency programmes is sufficient for the preparation of competent specialists in the opinion of 53% of residents and 76% of supervisors. It was mentioned that in Estonia, there is lack of patients with specific conditions and due to time constraints, it is not possible to give all residents, for example, practical experiences in procedures (this is especially the case of very narrowly defined specialities).

Additionally, it was brought up that too much time is being spent observing supervising doctors, especially during non-specialist rotations, which does not provide a thorough understanding and practical experiences.<sup>144</sup> Focus groups revealed this is highly relevant in regards to family medicine trainees, who have a significant amount of one-month-long rotations, where they are treated, in a best-case scenario, as silent observers and not given instruction. The interviewees mentioned this might be caused by the lack of knowledge of supervisors regarding what the residents are supposed to learn during the short rotations.

### Latvia

Rating: 3 / 0.92

Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>145</sup>, Articles 12 to 15 require that at least part of the residency programme needs to be attained in a hospital or healthcare institution which is not the main training institution for the resident: "Nr 12: The universities, at least in the residency programmes of Surgery, Internal Medicine, Paediatrics, Gynaecology, Obstetrics and Family Medicine (general practitioner) offer an opportunity for the residents to attain part of the study programme in general hospitals or family (general practitioner) doctors' practices outside of Riga. Nr 13: A general hospital has contracts with university hospitals and specialised hospitals, providing the necessary cooperation in residents' training in the respective study programme. Nr 14: If the residency takes place in the Pauls Stradiņš clinical university hospital or in the Riga Eastern clinical university hospital, the university, depending on the speciality, ensures no less than 20% of the residency training time in another university hospital or in a different healthcare institution in the respective speciality. Nr 15: In residency programmes of basic specialities<sup>146</sup>, the resident works 3 months within 3 years' duration in the intensive care or emergency department." In the same regulations, Article 26 also states that in addition to the assigned

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<sup>143</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>144</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 138–143. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>145</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

<sup>146</sup> In Latvia there are basic specialities (which can be acquired immediately after finishing basic medical education – the sixth year studies) and subspecialities, which require an acquired basic speciality first. For example, subspeciality "child psychiatry" currently requires an already acquired basic speciality "psychiatry".

supervisor, other doctors working in the same institution can also be involved in resident education, therefore diversifying the experience gained. The the process of selecting trainees is transparent and fair exchange is available, although from the survey only 14 out of 138 residents who answered (10%) stated that they have undertaken part of their training in a foreign country.<sup>147</sup> Additionally, one resident has expressed in the survey that they would have wanted to work more in the outpatient clinics during their training, but this was not possible.

### Lithuania

Rating: 3 / 1.31

Since most of the teaching process takes place in university hospitals, the residents are exposed to a broad range of clinical cases. However, the learning experience can be very different. Rotations in some specialities are often inadequate – in some units there are too many trainees, while in others there can be too few – which makes the level of experience gained very unequal. In addition, because of the overwhelming amount of bureaucracy within the medical system and the lack of proper management within the hospitals, residents are often forced to spend the majority of their time on paperwork. Even though the number of training centres is relatively high, when asked if the quality of supervision amongst different training centres is homogenous, an overwhelming 63.4% of trainees disagreed or strongly disagreed with the statement. As one trainee put it:

"Very, very, very strongly varied. Some departments are oriented towards education and others just exploit residents as a free workforce."

One supervisor also expressed an opinion that:

"There is no future-oriented concept, and no-one is really paying attention how many specialists we need and how many residents should be trained. Moreover, trainees are not trained to learn and to get the most knowledge out of their residency, but instead they are trained to have duties not rights, to exist and to finish without questioning the quality of the system. The system is not motivating, not supportive and very destructive in a way that there is a lot of paperwork-based training, little or no evidence-based teaching, no soft-skill fostering, etc."

### 2.23. Before starting postgraduate education, the basic medical education provides a high-level understanding of basic biomedical sciences

#### Estonia

Rating: 3 / 1.33

The first 3 years of basic medical education are pre-clinical, with a strong emphasis on biomedical sciences. Feedback from employers (including residency supervisors) states that graduates have shortcomings in one or another skills and knowledge areas; however, they are generally satisfied with the graduates. Feedback from different stakeholders has been taken into account when changing the

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<sup>147</sup> The numbers were changed in March 2019.

content of basic medical education, and the curriculum is changed accordingly<sup>148</sup>. For example, since the 2015/2016 academic year, patient-centred communication is an obligatory course, and since 2016 the last year is an internship in different departments<sup>149</sup>. A majority of 60% of residents and 69% of supervisors agree that the skills and knowledge obtained in the basic medical education are in line with the necessary skills and knowledge of their speciality's residency programme<sup>150</sup>.

### Latvia

Rating: 4 / 1.96

Basic medical education in Latvia corresponds to EC Directive 2005/36/EC, law "On regimented professions and recognition of professional qualification.", Cabinet of Ministers Regulations No. 268 and doctor's professional standard. Moreover, the University of Latvia in "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>151</sup> among the intended results for basic medical education, states: "After successful completion of the basic medical education, according to the doctor's professional standard<sup>152</sup>, the graduate has knowledge, skills and competences: 1. To use principles of biomedical science, methods and knowledge in anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, pathology, pharmacology and physiology [...] in medical practice." A similar statement was not found for Rīga Stradiņš University's study programme in medicine. However, there is no reason to believe that the level of understanding of basic biomedical sciences in Rīga Stradiņš University's programme would be lower, since graduates of Rīga Stradiņš University's and the University of Latvia's programme later apply and are accepted for PME programmes in the other university. Moreover, 64% of residents and 63% of supervisors agree that the skills and knowledge obtained in the basic medical education are in line with the necessary skills and knowledge of my speciality's residency programme.

### Lithuania

Rating: 3 / 1.31

Even though undergraduate medical education programmes are always accredited by external institutions, the quality of undergraduate medical education has now been a topic for discussion for many years. When asked if the skills and knowledge acquired during basic education of medical doctors are relevant to the skills and knowledge necessary to continue postgraduate medical training in their speciality, 50.7% of residents and 57.9% of supervisors agreed or strongly agreed with the statement; however, many emphasised the lack of in-depth knowledge of basic sciences:

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<sup>148</sup> Section 5.7. of Basic medical education internal evaluation report 2017/2017. Available in Tartu University Study Information System.

<sup>149</sup> Curriculum of Medicine. Available in Tartu University Study Information System.

<sup>150</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 8–15. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>151</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

<sup>152</sup> Available: <https://visc.gov.lv/profizglitiba/dokumenti/standarti/ps0382.pdf>

"The basic medical knowledge was too poor, had to study lots of things from the beginning. Some of them are left unclear."

"The knowledge acquired during basic medical education is too minimal to continue postgraduate training in my speciality."

## **2.24. The training process is versatile, and the trainees participate in all medical activities relevant for the education, including on-call duties, without the service components of the trainee positions dominating**

### **Estonia**

Rating: 3 / 1.33

Practical training includes work in out-patient and in-patient wards, participation in colloquiums, meetings within the department, and specialist procedures stated in the residency programme. All medical residents have on-call duties in the capacity stated in residency specialist programmes (sect. 22; 24)<sup>153</sup>. It has also been mentioned by stakeholders that the service component is, in some cases, dominating over education and training.

Participation in medical activities depends on the speciality of the trainee and the rotation they are performing. Often trainees, who are not doing their specialist rotation, are left to observe without supervision and not given opportunities to participate.

### **Latvia**

Rating: 1 / -1.18

Out of 124 residents who rated the statement, "There is a fine balance between educational, research and service functions in postgraduate medical training on my chosen field of medicine.", only 33% of residents agree or strongly agree with it. Thus, in 38% residents' experiences there is not a fine balance between the educational, research and service functions. The comments emphasise that the service functions are dominating and add that the extent of the educational activities depends on the supervisor and whether he or she has time: "It is mostly service functions.", "Could be more research." and "Again, depends on doctor I am working with. I have been lucky until now, but it is really not that good with others."

Moreover, the low salary requires the residents to take on additional jobs, increasing the service function even further: "Due to low salary in residency – 430 EUR per month – I have to have a second job because I have a family and I have to maintain monthly expenses of living; it is not possible to cover monthly expenses of living with such a salary of 430 EUR net per month." Comments from the general comments' section emphasise even further that the dominating service functions is one of the most pronounced problems in residency in Latvia: "There are too many patients for one resident; not on every training rotation of course, but in most cases. No time for every patient in order to properly investigate their concerns. This year our salary is better but anyway we are working in no less than three jobs.", "Residents lack theoretical knowledge in medicine. Most of the residents are pulled into the daily routine and forget that the main task is to learn something new and become a better specialist.", "The

<sup>153</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

salary is so small, that residents have to work many jobs to earn enough for essential living expenses. This leaves no time for research and scientific work and learning a theoretical basis.", "Teachers are not interested in training new colleagues. University workshops are good. [...] Compared to the experience gained abroad, residents' training is very different." Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>154</sup>, Article 15 regulates that residents do participate in the on-call duties: "In residency programmes of basic specialities, residents work 6 months within the 3-year programme in the intensive care or emergency department." However, a resident described cases of him/her being taken out of the current rotation because of a shortness of staff in the emergency department: "I can only speak about my hospital – due to shortness of staff the doctors don't have time to teach the residents, or discuss the patients and the cases (even if they wanted to). For the same reason, residents are used as secretaries and are more likely to fill in various forms and documents instead of really learning how to treat the patients. Also for the same reason residents are forced 'voluntarily' to spend one to several months in the emergency department. Sometimes they are yanked from other departments just to 'put out the fire' (shortness of staff) in the emergency department. Finally, due to the awful salaries (that are not enough to support a family) doctors and residents are forced to take several (at least two to three) jobs which leads to exhaustion and thus a lower quality of work/residency..." Another resident mentions that extra work places are also taken in order to gain experience outside in a different institution: "Almost every resident has one or two additional work places to gain money and experience."

### Lithuania

Rating: 2 / -0.02

The training processes are described in the residency programme descriptions, and in most cases are somewhat versatile. However, these descriptions often do not correspond to the real-life situation in the residencies, as the educational goals are frequently not met. Because of the high number of residents, the number of patients to practise on is often insufficient. In addition, since most of the teaching process historically takes place in university hospitals, they rely heavily on the workload of residents, which, in turn, does not leave enough time for other training activities. When asked if there is a fine balance between educational, research and service functions in postgraduate medical training in their chosen field of medicine, 50.8% of trainees disagreed or strongly disagreed with the statement, while 61.1% of supervisors agreed or strongly agreed with it. As one resident put it:

"It is mostly clinical work. You study during seminars or on your own. You do research on your free time."

and,

"Service > Education > Research."

A supervisor agreed, stating that it showed:

"No balance at all."

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<sup>154</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

## 2.25. The trainers have access to pedagogical education and tutor/supervisor training

### Estonia

Rating: 1 / -0.99

Pedagogical training is not a prerequisite for being a supervisor or mandatory for current supervisors. Approximately 51% of trainers disagree with, and 20% find it difficult to say, in relation to the claim that they have received sufficient continuous pedagogical education, which allows them to be a good supervisor. Several supervisors have added that the information about training courses comes too late to be able to fit it into their schedules, and that such training is rare and not systematic. Some mentioned that they have themselves learned while training residents.<sup>155</sup> There is no public information available about pedagogical education availability especially for supervisors.

### Latvia

Rating: 1 / -1.18

A majority of 55% of supervisors agreed and strongly agreed with the statement: "I have been trained to be a supervisor in my chosen field of medicine." However, interviews with stakeholders provided evidence that no pedagogical education/supervisor training is provided to trainers upon commencing educating the junior doctors. Moreover, the trainers' answers to the statement above confirmed that the pedagogical education they have received is acquired because of their own initiative and is not a special course from the universities: "But I have got a master's degree in pedagogy myself.", "Annually I receive this training abroad. These are short teaching courses.", "I have several European learning diplomas in my field."

### Lithuania

Rating: 1 / -1.36

The criteria for residents' supervisors and coordinators are described in the respective university's "Regulations of Residency". A resident supervisor is a university employee and/or a doctor working in a residency base, with at least 5 years of clinical experience. A coordinator of a residency is a university employee, with or without an academic degree, appointed by the faculty. Unfortunately, the fostering of supervisors' pedagogical skills lacks any systematic approach, as merely being a university employee is considered sufficient to be able to teach residents. When asked if they have been trained to be a supervisor, 40.7% of supervisors disagreed or strongly disagreed with the statement. As one of them put it:

"If this means "supervisor of residents" – I haven't been trained as a supervisor. Working in a university hospital as a faculty member means you are a supervisor."

## 2.27. There is a balance between trainers' and supervisors' clinical workload and training obligations, allowing enough time for teaching, supervision and learning

### Estonia

Rating: 2 / 0.17

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<sup>155</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 152–154. Tallinn: Poliitikauuringute Keskus Praxis.

Residents and supervisors have expressed that supervisors do not have adequate skills and time to provide sufficient training and supervision to residents. Approximately 55% of responding supervisors agree that their workload is balanced, while approximately 38% disagreed and 7% find it difficult to say. One supervisor admitted that "Instructing is done in addition to normal work, not instead/alongside. Time [and] energy for residents is chronically low." Another supervisor mentioned: "Workload exceeds 1.0; there is too little time for self-development within the active working day and limited training opportunities due to lack of funds."<sup>156</sup>

### Latvia

Rating: 1 / -1.18

The Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>157</sup>, Article 17 states: "A doctor mentioned in article 11.5.2. of these regulations, by coordinating with the manager of the residency programme in the university and with the doctor responsible for organising residency in each speciality in the healthcare institution, can supervise no more than three residents at the same time." Thus, the legislation has imposed a limit on the maximum number of residents that a doctor is allowed to supervise at the same time and this could be seen as an effort to also give the supervisor sufficient time for clinical work. On the other hand, stakeholders involved in organising and carrying out residency express that no practical steps are taken to ensure that trainers also have time for teaching, supervision and learning. It is stated that the supervisors' contracts with healthcare institutions do not differentiate between time that has to be spent on clinical work and time to be spent teaching, supervising and learning. Instead, these responsibilities overlap and are carried out in parallel. Around 58% of supervisors agreed or strongly agreed with the statement: "My clinical workload is organised in a way that also ensures time for teaching, supervision and learning." The three comments submitted to the statement above by supervisors share: "Nearly in all cases.", "But it takes 13 hours per day, 5 days per week.", "Much more emphasis on clinical work, very little chance for other endeavours." Residents' comments, as listed in argumentation for other standards, also hint at a significant lack of time for teaching on the supervisors' side. One of the stakeholders expressed during an interview that, from their point of view, possibly the biggest problem in residency in Latvia is the supervisors also having several jobs which require them to divide the day between multiple offices and, consequently, they are available in the institution where residents work only part of the time. Similarly to junior doctors, multiple jobs are often taken by the doctors because of the need to earn a living.

### Lithuania

Rating: 1 / -1.36

Unfortunately, the balance is not kept in harmony. Supervisors have a huge clinical workload, which takes up time that could be dedicated to trainees. In addition, supervisors frequently lack motivation, as the salaries they receive as supervisors are low. Most of the learning process is "learning by doing" or "learning by observing"; however, the time dedicated to the process of teaching and its quality

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<sup>156</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 150–151. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>157</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

strongly depends on each individual supervisor. When asked if trainers have/had sufficient time for supervision, 47.9 % of trainees disagreed or strongly disagreed with the statement. As trainees put it:

"Almost no time for teaching or supervision. The supervisors usually have other projects needing their attention. The best one can hope for is a few short answers from the supervisor to specific questions. No seminars or lectures for residents."

"Depends on the supervisor – some would make time even if there is physically no time at all."

## 2.28. Feedback from the trainee to the trainer is used in periodic evaluation of trainers

### Estonia

Rating: 1 / -0.99

There is no information on the requirement of feedback from the trainee to trainers. The only mention of feedback is in Ch. VI sect. 42 of University of Tartu Senate's Act No. 2 "Regulations of Residency"<sup>158</sup> where "the resident is required to keep a residency diary reflecting the completion of theoretical training of the resident and the acquisition of practical skills in accordance with the individual curriculum and the residency programme", but this does not say that feedback must be provided to trainers, it only requires that the resident keeps written track of their own training. A residency base and trainers' evaluation form is available on the Faculty of Medicine webpage<sup>159</sup>, but no regulatory evidence of feedback requirement and obligation. At the end of the rotations, the university collects feedback forms for residents and trainers, but there is no evidence of its systematicity and periodicity. In interviews, residents expressed that it is important to create a feedback system that would really help supervisors and themselves to perform their work more effectively. However, they also brought up that, currently, providing critical feedback is difficult as it is impossible to stay anonymous, especially in residency programmes of narrow specialities where there might be one or two residents in one year and since there are limited workplaces in the field, it is essential to get along with the supervisors and therefore providing critical feedback might obstruct being hired after residency. Thus, if the feedback system should be reviewed, it should take all these remarks into account.

### Latvia

Rating: 1 / -1.18

The Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency.", Article 11 require the trainees to submit evaluation forms of trainers: "11.5.3. Residents and doctors mentioned in article 11.5.2. of these regulations electronically submit residency evaluation forms [...] to the university". Moreover, these regulations require the university to describe the procedure of how the summaries of evaluations to the healthcare institution are made available. The university ensures that: "11.5.3.1. evaluation forms submitted by residents on their supervisors are anonymous until the end of residency programme or interruption of the residency programme; 11.5.3.2. The supervisor is introduced to the evaluation results in cases where four or more evaluation forms have been filled in; 11.5.3.3. a resident can

<sup>158</sup> Entry into force 26.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>159</sup> <https://meditsiiniteadused.ut.ee/et/dokumendivormid>

become acquainted with the evaluation form filled in by the supervisor after submitting his/her evaluation form on the respective doctor. [...]” The above regulations require the evaluation forms to be submitted monthly. Although the system seems to formally accomplish the aim of the standard perfectly, during interviews stakeholders and residents alike point out that, in most cases, it does not work in practice. Several reasons were offered for this: the fact that very few residents fill in the evaluation forms, since they are electronic, they are anonymous and, with the current system, impossible to enforce; if the evaluation form is filled in on paper, the resident's name is mentioned on it and it is filled in cautiously, because honest feedback might result in negative consequences for the resident; in small specialities it is filled in accurately, because the supervisor might guess who the evaluator was. Additionally, the current system provides a large administrative burden to universities and the evaluation results might not get to the supervisor in question. Besides, reportedly, some doctors are simply not interested in how residents have evaluated them.

Stakeholders report that there are only a few cases when feedback submitted by residents has been the basis for changing a supervisor – in cases of serious violations on the supervisor's side. Although it is not officially required in legislation, some institutions report asking the residents to fill in the institution's own forms. These initiatives tend to give positive results, as the additional evaluation forms tend not to fulfil a formal purpose but aim to seek out and also reward the best supervisors monetarily, in order to maintain and encourage a supportive environment for the residents. This is also a much more realistic way of carrying out evaluations, as there will not be two institutions involved, with the necessity to share results.

### **Lithuania**

Rating: 1 / -1.36

“Unfortunately, there is no systemic approach to address this issue. A supervisor is evaluated only if a certain number of complaints has been received.”

However, a pilot study in the Lithuanian University of Health Sciences has recently been conducted, where an instrument for providing feedback to trainers (the EFFECT questionnaire) was implemented. Unfortunately, after completion in some departments the idea was abandoned due to a lack of human resources.

## **2.29. The trainees have access to up-to-date professional literature**

### **Estonia**

Rating: 3 / 1.33

A significant majority of 71% of residents and 82% of supervisors agree with the claim: “I/residents have good access to specialist scientific literature.”, while 13% of residents and 14% supervisors found it difficult to say. Residents advise that access in Tartu is good through university hospital computers, The University of Tartu’s proxy servers and The Centre for Medical Information. In other base hospitals, access to literature is lacking or a complicated process.<sup>160</sup>

### **Latvia**

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<sup>160</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 91–95. Tallinn: Poliitikauuringute Keskus Praxis.

Rating: 3 / 0.92

The statement: "Trainees have access to up-to-date professional literature." shares the highest weighted average in the survey among residents with another statement, at 3,76. Looking at it quantitatively, 70% of 124 residents agree and strongly agree that they have access to up-to-date professional literature. This can be seen in the overwhelmingly positive comments expressing the residents' satisfaction with the available databases: "Yes – this is really great! Several clinical databases are available through the university e-study system. I use them a lot. I don't know what I am going to do after graduation without this access.", "Thank you, university for providing the access to all the web pages! I am absolutely pleased with being able to obtain the latest articles and brand new books in my specialisation.", "All literature is available in the university library – various international journals, electronic journals like UpToDate, NEJM, DynaMed, I have downloaded several applications on mobile – MedScape, BMJ, etc." However, there are also some narrow, specific issues pointed out, such as a lack of specific database, no access to speciality journals, or a lack of books in some specialities or healthcare institutions: "The university ensures access to some of the biggest databases online, but there isn't a system to ensure access to speciality journals – the trainee has to pay for them if they want access.", "We have an up-to-date database available in our hospital and clinical key database available through the university library, but there are a lot of clinical guidelines, position statements, scientific statements which are published in scientific literature not available through our libraries. And as for the newest scientific books... well, this is another story.", "We do have some databases. We had UpToDate, which is the easiest to use, but the hospital cancelled it. Moreover, those who do have a private UpToDate account cannot access it via any of the hospital computers.", "Internet resources are good, books cost too much.", "We have some access to new publications. It is better in other fields."

#### Lithuania

Rating: 4 / 2.76

Access to major professional literature sites are granted by universities. A huge majority of 73.9% of trainees and 91.7% of supervisors agreed or strongly agreed that they have access to up-to-date literature. However, some emphasised the lack of specific literature:

"With limits to some specific literature, there is a good access."

### **2.30. The programmes are routinely monitored and evaluated and data about key aspects of the programme are collected for ensuring that the education is on track and for identifying any areas in need of intervention**

#### Estonia

Rating: 1 / -0.99

The monitoring and evaluation of residency programmes is not regulated. This initiative is taken by the programme director of the speciality and its regularity depends on them or the residency council of the Faculty of Medicine. Internal evaluation of the programmes is not carried out and only four residency programmes out of 42 (Anaesthesiology and Intensive Care, Family Medicine, Obstetrics and Gynaecology, Urology) have gone through the external evaluation.

There is no systemic approach to gathering feedback about programmes. There are no guidelines and methods described of identification of areas in need of intervention. It is thus highly dependent on the time and motivation of the programme director.

### Latvia

Rating: 2 / -0.3

The Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>161</sup>, Article 16 requires that: "16. University ensures that study programme manager of each speciality: 16.1. At least once every six months together with a resident they evaluate the progress of the residency programme, and determine problems and possible changes in the process of the residency programme. Such an evaluation is documented in a protocol by the residency programme manager; 16.2. At least once in a year meet with the person who is responsible for the process of residency programmes in the university as a whole and evaluate the progress of the relevant residency programme, to determine problems and necessary improvements, as well as agree on consecutive action if improvements to the residency study process are needed." During interviews with stakeholders it was determined that, in practice, article 16.1. is carried out in different ways. It could either be carried out by a study programme manager simply meeting the resident and writing down his/her evaluation for the rotation/study year (this is requested by Rīga Stradiņš University's "Residency Studies Rules of Procedure") or it could also be a lengthier conversation where both residents' progress and problems and possible improvements in the study programme are discussed (not required in any documents available to the researcher). Furthermore, the programmes are evaluated yearly by the universities by carrying out additional surveys amongst their residents. Rīga Stradiņš University's survey states that its aim is to "ascertain the residents' satisfaction with the practical and theoretical training as well as the organisation of residency in general."<sup>162</sup> The University of Latvia's survey aim is to ascertain residents' satisfaction with quality of studies ("Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>163</sup>) Both university representatives also stated that a survey among directors of medical institutions is carried out, thus collecting employers' feedback about residents' performance. Additionally, university representatives state that the number of applications to specific programmes is analysed and programmes with low application rates are investigated in order to find out if the programme content is relevant and competitive or if there are any other issues with the programme. Moreover, university representatives state that dropout rates at exams are analysed. The researcher did not find evidence that, outside of the meetings between study programme managers and residents,

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<sup>161</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

<sup>162</sup> Rīga Stradiņš University's "Overview on actions carried out to perfect second level professional higher educational study programme "Residency in medicine" in academic year 2016/2017" Available at: [https://www.rsu.lv/sites/default/files/imce/Studiju%20virziena%20raksturojumi/Studiju%20programmu%20raksturojumi/2LPSP\\_RezidenturaMedicina\\_2016\\_2017\\_parskats\\_IGrope.pdf](https://www.rsu.lv/sites/default/files/imce/Studiju%20virziena%20raksturojumi/Studiju%20programmu%20raksturojumi/2LPSP_RezidenturaMedicina_2016_2017_parskats_IGrope.pdf) approved in Rīga Stradiņš University Senate on 23.01.2018, retrieved on 25.07.2018.

<sup>163</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

data on average actual duration of education, scores, as well as time spent by the trainees on areas of special interest would be collected and analysed.

### **Lithuania**

Rating: 2 / -0.02

Since residency is considered to be a higher degree of medical education, when it comes to outside evaluation the residency programmes follow the same set of rules as other study programmes in Lithuania. Outside evaluation, performed by the Centre for Assessment of Study Quality should take place every 3 to 6 years, depending on the result of the previous evaluation. This year, the evaluations have been postponed due to the implementation of competency based training. The procedure of outside evaluation includes a self-analysis of the programme. However, not all of the programmes have been through the process of outside evaluation. The process of regular inside evaluation of the residency programmes depends on the residency programme committees (commissions), hence only a few of the programmes have been known to continuously improve the quality of their programme.

### **2.31. Concerns identified during monitoring and relevant results of evaluation are systematically addressed**

#### **Estonia**

Rating: 1 / -0.99

There are no written internal regulations in this area. Real practice involves the following: in case of problems, the programme director approaches the residency committee or the vice dean of residency and proposes certain changes. It is highly dependent on the time and motivation of the programme director.

#### **Latvia**

Rating: 4 / 1.96

The Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>164</sup>, Article 16 requires that the study programme manager: "16.2. At least once in a year meets with the person who is responsible for the process of residency programmes in the university as a whole and evaluates the progress of the relevant residency programme, determines problems and necessary improvements, as well as agrees on consecutive action if improvements to the residency study process are needed." Thus, there is a requirement by legislative documents to address the concerns identified during meetings between residents and study programme managers. Since this is the main channel of monitoring and evaluating programmes, it is evaluated alone and because the regulations require that the parties agree on consecutive action, the evaluation is 4. No more evidence on the situation in reality was found during the research.

#### **Lithuania**

Rating: 1 / -1.36

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<sup>164</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

The respective "Rules of Residency" in both universities define the parties responsible for changing and approving the residency programmes. There is no document to address the importance of and give guidelines for collecting systematic feedback about these programmes and providing adequate procedures for their regular review and update. That said, only 19.1 % of the trainees who took part in our survey agree to the statement that "The postgraduate medical training on my specialty is organised in line with my understanding how postgraduate medical training should be provided.", while 54.1% do not. The results of the survey were reversed (56.1% and 16.9%) when the supervisors/mentors were asked the same question. This shows that there is a significant gap in communication between the trainees and their mentors and that even though these principal stakeholders have ideas on how the programmes should be improved, there is a lack of appropriate procedures to effectively discuss and implement these changes.

### **2.32. Feedback about programmes is collected from trainees, trainers, employers and qualified doctors and its results are used for programme development**

#### **Estonia**

Rating: 0 / -2.15

The collection of feedback about the programmes is not systematic or regular. Oral feedback from a limited number of individual residents is sporadically collected after the final exam. There is neither evidence nor information for it being analysed nor any changes based on the feedback being implemented.

#### **Latvia**

Rating: 2 / -0.3

As seen in standard 2.30, the feedback about study programmes is likely to be collected in the meeting between the resident and study programme manager according to Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency", Article 16. Both universities also carry out yearly surveys among their residents where feedback is gathered. Although the researcher did not find requirements in the legislation to collect feedback regarding the programmes from employers, both university representatives stated that feedback on their residents is also gathered from employers – directors of medical institutions. No evidence was found that formal feedback about the programme is being gathered from trainers, employers and qualified doctors. However, it is possible that some feedback is being transmitted from the trainers to the study programme director of the relevant speciality as part of the regular work process. The stakeholders mentioned during interviews that in some specialities national specialist associations are involved in creating and updating the study programme in their speciality because the study programme manager is actively involved in the association or is its head. However, this depends on the study programme manager and the speciality association, as there is no systemic structural requirement.

#### **Lithuania**

Rating: 0 / -2.69

There is no document to address the importance of and give guidelines for collecting systematic feedback about residency programmes and provide adequate procedures for their regular review and

update. Since the process of collecting feedback about the quality of the programmes is not controlled systematically, it strongly depends on the coordinators of the programme. Most of them do not collect feedback at all, and those who do are not doing it regularly and/or systematically.

### 2.33. The results of course and programme evaluation are made available for principal stakeholders

#### Estonia

Rating: 1 / -0.99

There are no internal evaluations of the programmes. The external evaluation has been conducted on only four programmes out of 42. The results can be seen by submitting a corresponding request to the Faculty of Medicine. This, however, requires previous knowledge of the existence of these evaluations and the Faculty of Medicine is not obliged to share these with other stakeholders. The information of the existence of external evaluation is not publically available.

#### Latvia

Rating: 2 / -0.3

Cabinet of Ministers Regulations No. 685 of August 30, 2011 "Regulations on admission and distribution of residents and financing of residency"<sup>165</sup> require that the study programme manager "16.2. At least once in a year meets with the person who is responsible for the process of residency programmes in the university as a whole and evaluates the progress of the relevant residency programme, determines problems and necessary improvements, as well as agrees on consecutive action if improvements of the residency study process are needed." Thus, the university is informed of the evaluation of each speciality programme performed by the programme manager. The researcher did not find evidence that this evaluation would be made available to other stakeholders. Rīga Stradiņš University's "Overview on actions carried out to improve professional higher educational study programme "Residency in medicine" in academic year 2016/2017" and the University of Latvia's "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Professional higher education (short progr.) 48721"<sup>166</sup> makes the results of each university's yearly residents' survey on residents' general satisfaction with the programme publically available.

#### Lithuania

Rating: 1 / -1.36

The results of the external evaluation of residency programmes must be readily available in the websites of the universities according to the rules of the Centre for Assessment of Study Quality. However, the research team did not manage to find such information.

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<sup>165</sup> Entry into force 20.04.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=235421>

<sup>166</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

## **2.34. There are procedures for regularly reviewing and updating the process, structure, content, outcomes/competencies, assessment and learning environment of the programme**

### **Estonia**

Rating: 1 / -0.99

The responsibility to review and update residency programmes lies with the programme directors, however it is not done systematically or regularly, nor is there evidence of any procedures put in place.

### **Latvia**

Rating: 2 / -0.3

The requirement of the Cabinet of Ministers Regulations<sup>167</sup> No. 685 of August 30, 2011 that the study programme manager "At least once in a year meets with the person who is responsible for the process of residency programmes in the university as a whole, and evaluates the movement of the relevant residency programme, determines problems and necessary improvements, as well as agrees on consecutive action if improvements of the residency study process are needed.", constitutes a procedure to update the process, structure and to some extent also the learning environment of the programme. According to the university representatives, each year there are small changes in the study programme content to keep them up-to-date. Major reviewing of programmes is performed once every 6 years before programme accreditation. However, the research team did not find any specific procedures for this.

### **Lithuania**

Rating: 2 / -0.02

The only clearly regulated procedure of evaluation of the residency programmes is conducted by the external institution, the Centre for Assessment of Study Quality. The internal evaluation is not clearly regulated, as it depends on each individual residency programme committee (commission), making it virtually non-existent.

## **3. Assessment and feedback during postgraduate medical education**

### **3.1. The selection process of trainees is transparent and in accordance with the formulated selection policy**

#### **Estonia**

Rating: 3 / 1.33

Admission criteria and process is clearly formulated in the University of Tartu Senate's Act No. 2 "Regulations of Residency"<sup>168</sup> Ch. II. According to the University of Tartu Medicine Faculty Council Act "Residency admission examination substantive requirements, execution procedures, and admission

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<sup>167</sup> Entry into force 20.04.2018, Retrieved 29.07.2018, Available: <https://likumi.lv/doc.php?id=235421>

<sup>168</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

exam points division between oral and written parts"<sup>169</sup> point 2, admission exam points are divided in the following way: written exam max. 10 points and oral exam max. 20 points except in specialities stated in point 3 (allergology-immunology, dermatovenereology, endocrinology, oncology, orthodontics, pulmonology, restorative dentistry, oral and maxillofacial surgery, obstetrics and gynaecology). In those specialities entry exam points are divided as follows: written exam max. 20 points and oral exam max. 10 points. The substantive requirements and procedures of the admission examinations are established by the Council of the Faculty of Medicine. The vice dean of PME, on the proposal of the programme director of the specialty, makes up the admissions examination committee of three to five members. At least one of the members of the committee must be from outside the university.

Residents have expressed their concerns about the transparency and subjectivity of the admission process.<sup>170</sup> Furthermore, the oral exam is not reproducible: although protocolled, the exact content of the exam cannot be reproduced.

### Latvia

Rating: 3 / 0.92

Submitting an appeal regarding the admission results is an option in both universities. Therefore, it is concluded that the selection of trainees takes place in accordance with the formulated selection policy. In addition, Rīga Stradiņš University's "Admission Regulations for the Second Level Professional Higher Education Programme "Residency in Medicine" in a Study Place Funded by State Budget"<sup>171</sup>, Article 43 specifically states: "University has these duties in the admission process: 43.1. to ensure fair admission in accordance with these Regulations and other normative acts." Residents have submitted these comments regarding transparency: "In addition, interviews before selection are somewhat subjective.", "The interview part of the process holds too much weight and favouritism is a big part of that process, that no one is even trying to hide." Another resident criticises the frequent changes in admission criteria: "The rules of application for the residency programme are published in the university homepage and one can become acquainted with them and prepare. However, some of the rules have been changed several times less than one year before graduating (e.g. time spent volunteering in the desired speciality, count or type of publications preferred...etc.). Also, a slight change could eventually significantly change your chances to get the place." Supervisors have, in contrast, commented that: "The competition is organised by the university, it has several stages and is fully transparent.", "The process is reasonably transparent [...]."

### Lithuania

Rating: 2 / -0.02

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<sup>169</sup> Entry into force 16.03.2016. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-vastuvotueksamite-sisulised-nouded-sooritamise-kord-punktide-jagunemine>

<sup>170</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 24–28. Tallinn: Poliitikauringute Keskus Praxis.

<sup>171</sup> Available at: <https://www.rsu.lv/sites/default/files/imce/Dokumenti/noteikumi/uznemsanas-noteikumi-rezidentura-2018.pdf>, approved in Rīga Stradiņš University Senate on 21.11.2017, retrieved at 29.07.2018.

The selection process of trainees is defined in several documents: the "Ruling on doctors' training" and the respective "Rules of Residency" in both universities. However, these documents only provide guidelines on which university structures are responsible for the admission procedures. Each university defines its own scoring system for the selection of candidates. A part of the final score in the process of selection into a residency programme includes a "motivational score", which consists of an evaluation of the applicant's engagement in research, volunteering experience and personal characteristics. The process takes place when the applicant has an interview with the "selection committee" made up of the head of the department, several members of the educational staff and one representative of the trainees. The two universities each have their own suggested structure and means of evaluation of these components. However, as the research team concluded from interviews with focus groups, some departments in both universities do not adhere to the recommendations, paving the way for subjectivity in the process, as the motivational score, in some cases, determines the final outcome of the application (for instance, in one of the universities, an applicant is removed from the process of application if their motivational score is not sufficiently high). The difference in the perception of transparency between different residency programmes is also reflected in the survey – some think that the selection process is fair (34.1 % of the trainees and 65.8 % of the supervisors), yet a relatively large proportion of the respondents (34.1 % of the trainees and 12.2 % of the supervisors) believe that unfair advantages are given, for example, to male candidates or those who have relatives working in the field. Moreover, inequalities are being seen according to the university from which you have graduated, for instance if you graduated from Vilnius University, your overall marks in motivational interview in the Lithuanian University of Health Sciences might be lower.

### **3.2. The intended educational outcomes of the programmes are defined with respect to achievements at a postgraduate level regarding knowledge, skills and attitudes and future roles in the health sector**

#### **Estonia**

Rating: 2 / 0.17

General educational outcomes regarding knowledge, skills and attitudes that the doctor should have after completing PME are defined in the programmes.<sup>172</sup> The knowledge, skills and attitudes the resident should have in the end of each academic year are mapped out in only a few specialities' programmes. The outcomes are general and do not reflect the given qualification or the speciality. Furthermore, no educational outcomes are defined for the individual rotations from which the PME is built. Consequently, it is impossible to know how the resident is supposed to acquire the knowledge, skills and attitudes required and needed, and whether this is achieved.

#### **Latvia**

Rating: 3 / 0.92

Attitudes and future roles in the health sector are discussed in only a very few specialities in Cabinet of Ministers Regulations No. 268 of March 24, 2009 "Regulations on competency in medical treatment and volume of theoretical and practical knowledge for medical practitioners and students who acquire

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<sup>172</sup> Residency programmes. Sect. 20. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

first or second level professional higher medical education programmes"<sup>173</sup>. The regulations No. 268 state the attainable knowledge and skills for each speciality, but the attitudes and future roles are not specifically distinguished. In those rare cases when they are mentioned it is as part of the skills and knowledge to be gained. The University of Latvia does list the knowledge, skills and competences (including aspects of attitudes) as education aims in its "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>174</sup>. Future roles in the health sector are only partly discussed. Rīga Stradiņš University's "Study programme characterisation. Second level professional higher education study programme "Residency in Medicine. Academic year 2015/2016" lists generic educational outcomes for all programmes, including knowledge, skills and attitudes. The researcher did not have access to speciality programmes.

### Lithuania

Rating: 2 / -0.02

The respective "Rules of Residency" in both universities define the parties responsible for creating, changing and executing the residency programmes, namely the residency committee and residency commission. However, these documents do not elaborate on the precise intended educational outcomes – they are to be defined by the residency commissions in individual departments. When analysing different residency programmes, it can be seen that while the educational outcomes related to the medical knowledge/skills are programme-specific, the outcomes concerning the soft skills, such as working in a team, attitude towards the patient, communication, lifelong learning, etc. are highly similar between different programmes. Yet, according to the survey, in a great majority of departments, there is no systematic approach in teaching the required medical skills, and even less so in fostering the soft skills. To quote one of the respondents, "Soft skills are mostly ignored with most attention paid to medical expertise/knowledge."

### 3.3. The intended educational outcomes of the programmes are defined with respect to generic and discipline/speciality-specific components

#### Estonia

Rating: 4 / 2.49

Educational outcomes stated in residency programmes define both generic and discipline-specific components. The general outcome stated in every PME programme is that: "The main goal of the PME is to bring the resident's knowledge, expertise and practical skills to a level that enables them to work as an independent specialist. Acquired education allows the graduate to work in the healthcare system as [speciality name]." The speciality-specific components are stated in subsection 20 of every PME programme.<sup>175</sup>

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<sup>173</sup> Entry into force: 29.06.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

<sup>174</sup> Approved in University of Latvia's Senate on 08.01.2018, Retrieved 30.07.2018, Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

<sup>175</sup> Residency programmes. Sect 14; 20. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

## Latvia

Rating: 3 / 0.92

Cabinet of Ministers Regulations No. 268 of March 24, 2009 "Regulations on competency in medical treatment and volume of theoretical and practical knowledge for medical practitioners and students who acquire first or second level professional higher medical education programmes"<sup>176</sup> do not divide the educational outcomes to be acquired for each speciality's doctor between generic and discipline/speciality-specific components but concentrate on listing speciality specific components. The University of Latvia does list generic intended educational outcomes (for all speciality programmes) in its "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>177</sup>, Rīga Stradiņš University's "Study programme characterisation. Second level professional higher education study programme "Residency in Medicine". Academic year 2015/2016" lists generic educational outcomes for all programmes. The researcher did not have access to speciality programmes.

## Lithuania

Rating: 3 / 1.31

The respective "Rules of Residency" in both universities define the parties responsible for creating, changing and executing the residency programmes, namely the residency committee and residency commission. However, these documents do not elaborate on the specific intended educational outcomes – they are to be defined by the residency commissions in individual departments. When analysing different residency programmes, it can be seen that while the educational outcomes related to the medical knowledge/skills are programme-specific, the outcomes concerning the soft skills, such as working in a team, attitude towards the patient, communication, lifelong learning, etc. are highly similar between different programmes. Yet, according to the survey, in a great majority of departments, there is no systematic approach to teaching the required medical skills, and even less so in fostering the soft skills. To quote one of the respondents, "Soft skills are mostly ignored, with the most attention paid to medical expertise/knowledge."

### 3.4. During postgraduate medical training, the trainee is guided by means of supervision and regular appraisal and feedback

## Estonia

Rating: 1 / -0.99

Residents are dissatisfied with the current feedback system. The University of Tartu Senate's Act<sup>178</sup> No. 2 "Regulations of Residency" Ch. VI sect. 43 states that at the end of a rotation, the resident's supervisor

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<sup>176</sup> Entry into force: 29.06.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

<sup>177</sup> Approved in University of Latvia's Senate on 08.01.2018., Retrieved 30.07.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

<sup>178</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

must give written feedback, but residents have mentioned that this is not sufficient and there is not constant feedback.

According to Ch. VI sect. 42 of University of Tartu Senate's Act No. 2 "Regulations of Residency"<sup>179</sup>, "the resident is required to keep a residency diary reflecting the completion of theoretical training of the resident and the acquisition of practical skills in accordance with the individual curriculum and the residency programme." Currently, residency diaries exist and are a part of summative assessment, but they do not fulfil their function. Given feedback is not comprehensive. The residency diaries are often filled out by supervisors only using tick-boxes or the residents themselves are asked to fill them in. Only in selected specialities does interim examination take place. Thus, no or very little evaluation/assessment is performed before the final exam.

Only 27% of residents agree and 22% find it difficult to say that, during the residency, residents are given sufficient feedback that supports their becoming a professional doctor<sup>180</sup>, while 54% of residents agree with the claim: "During residency, supervisors always have/had sufficient time for me" and 18% find it difficult to say<sup>181</sup>. The claim: "The assessment of the knowledge, skills and attitudes of me and my co-residents has been carried out fairly, transparently and in accordance with the proposed learning outcomes and applied supervision methods." was agreed with by approximately 50% of residents, but approximately 40% found it difficult to say. They mentioned that very little evaluation is done before the final exam and feedback is given hurriedly and erratically.<sup>182</sup> Interviewed trainees said that supervising doctors often do not give feedback, the trainees themselves are asked to fill out the feedback forms about themselves that the supervisors have to submit, or they are sent directly to the university without giving feedback to the trainee. One of the probable reasons stated was the lack of pedagogical training.

## Latvia

Rating: 2 / -0.3

Theoretically, yes, each resident is assigned to a supervisor in each rotation. In addition, the Cabinet of Ministers Regulations<sup>183</sup> No. 685 requests that the supervisor fills in feedback on the resident at the end of the rotation. However, although it looks good on paper and works in some specialities (resident comments: "We do have regular meetings with supervisors, receive feedback, and have the opportunity for discussion." and "The supervisors are very supportive and inspiring, especially if you show eagerness to acquire thorough knowledge. Supervisors are always eager to give the best advice in practical skills."), in others the practical realisation is flawed. Out of 124 residents who rated the statement: "The trainees are guided by means of supervision and regular appraisal and feedback that supports their development to a professional doctor", 4% strongly disagree with it, 26% disagree, 27% neither agree nor disagree, 33% agree, 10% strongly agree with it. Again, there are many resident comments (21), most mentioning the lack of supervision in their experience: e.g. "They don't have time to communicate with residents.",

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<sup>179</sup> Entry into force 26.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>180</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 63–68. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>181</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 115–118. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>182</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 131–132. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>183</sup> Entry into force 20.04.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=235421>

"Sometimes even no supervision at all." Many residents also stress the lack of feedback: e.g. "There is poor feedback culture.", "Theoretically. In reality feedback is quite hard to acquire." And again, according to the residents, the quality and amount of feedback depends on the speciality and the supervisor: e.g. "It varies from specialities and different clinical rotations.", "Strongly depends on the tutor." Another resident argues that the current system of supervisors filling in official feedback forms on residents does not work: "[...] There is no real tradition of giving appraisal, it depends on the personality of the supervisor. [...]". Another resident reveals that constructive feedback is rarely given: "[...] There is only one doctor I know that gives each resident at the end of month constructive criticism and explains what could be done better."

### Lithuania

Rating: 2 / -0.02

Providing supervision and feedback for the trainees is under the responsibility of supervisors of the trainee and, to some extent, residency coordinator of each individual department. These guidelines are outlined in the "Ruling on doctors' training" and the respective "Rules of Residency" in both universities. However, these documents only state that the resident supervisor "has to evaluate the resident at the end of each rotation on the acquired theoretical and practical skills". On the other hand, according to official description of many residency programmes, mechanisms for continuous supervision and feedback have to be put in place and are mandatory. Yet, according to the survey, as the level and availability of supervision varies between different departments – only a small portion of the trainees (22.7 %) stated that they receive enough feedback during their training and even for the ones that do, it is often hazardous, negative and lacks a constructive approach. As one trainee stated: "Feedback is not so much a part of our educational culture as yet".

### 3.5. The degree of independent responsibility of the trainee is increased as skills, knowledge and experience grow

#### Estonia

Rating: 2 / 0.17

The University of Tartu Senate's Act<sup>184</sup> No. 2 "Regulations of Residency" Ch. IV sect. 32 states that training is based on individual curriculums and sect. 37 states that they are drawn up in the beginning of every academic year. No further regulations related to responsibility were found. The claim: "The resident's responsibility in the provision of healthcare services is increased gradually, according to their enhanced skills and knowledge." was agreed with by 55% residents and 73% supervisors, whereas 16% residents and 12% supervisors found it difficult to say. It was mentioned that the level of independence varies more between specialities and supervisors' permission rather than residents' experience.<sup>185</sup> In addition, the independence of the resident may increase, but the supervisor stays legally responsible. The Health Services Organisation Act states the following: "A resident physician may participate in the provision of specialised medical care, general medical care and emergency care with the purpose of

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<sup>184</sup> Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>185</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauuringute Keskus Praxis.

acquiring a profession, under supervision and at the responsibility of a medical specialist who has at least 5 years of work experience in the speciality of specialised medical care corresponding to the practical training passed by the resident physician.<sup>186</sup>

Junior doctors have mentioned that it is common to have been thrown “head first into water” due to the lack of workforce in healthcare and therefore, the service component of PME is dominating.

## Latvia

Rating: 2 / -0.3

Cabinet of Ministers Regulations No. 268 of March 24, 2009 "Regulations on competency in medical treatment and volume of theoretical and practical knowledge for medical practitioners and students who acquire first or second level professional higher medical education programmes."<sup>187</sup> states: "11. In the first and second years of residency a resident who acquires basic speciality can work under the direct supervision of a specialist whose work experience in the relevant speciality (after receiving a medical licence) is no less than 5 years, by documenting the acquired clinical experience and receiving feedback for the work done." The duties and rights of a resident in the medical treatment process are determined by the head of the medical institution, taking into account resident's knowledge and skills, which have been acquired and evaluated during medical education, as well as based on the recommendation by the relevant head residency programme manager and specialist whose work experience in the relevant speciality is no less than 5 years. The regulations require that resident's degree of independent responsibility is increased when starting the third study year. However, the terms "under direct supervision of a specialist" and "under the leadership of a specialist" used in the regulations are not clearly defined and left for interpretation of medical institutions. According to the stakeholders, currently an evaluation of residents' skills following the second study year is lacking (it is not defined what the resident should be able to do independently), which can result in a wide variety in the residents' allowed independence level between different specialities and healthcare institutions. Regarding the practical application of this standard, 65% of residents agreed or strongly agreed with the statement: "The degree of independent responsibility of the trainees is increased gradually as skills, knowledge and experience grow." Some argue that it "...depends on the personality of training doctor." and "It depends on the supervisor of each department." Another stance that has also been reflected in other standards is that the degree of independent responsibility is increased "Not gradually, but suddenly". In addition, it is argued that there are departments where the resident is not allowed to work independently in order to learn: "Not necessarily – in some departments also first year residents are quite on their own. In others, you always stay a 'secretary'." Still, there are residents whose experience of increasing their independence is extremely positive: "A doctor starts to teach carrying out a specific surgery by assisting him first, then by starting the surgery. [...] In the end the work is checked, and comments are provided." Meanwhile recent graduates believe that there are: "A lot of

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<sup>186</sup> Health Services Organisation Act, § 4 tert. section 1 prim. Passed 09.05.2001. RT I 2001, 50, 284. Entry into force 01.01.2002, partially 01.01.2003 and 01.01.2005. Available: <https://www.riigiteataja.ee/en/eli/ee/514112018001/consolide/current>

<sup>187</sup> Entry into force: 29.06.2018., Retrieved 29.07.2018., Available: <https://likumi.lv/doc.php?id=190610>

opportunities to work independently." and that "The work amount and complexity of work depends on how good/bad you are."

### Lithuania

Rating: 2 / -0.02

According to The Law of Medical Practice, the resident acquires his/her competence after fulfilling whole or a part of the residency programme. Moreover, according to national documents, and in accordance with the "Rules of Residency", both universities differentiate the trainees into junior and senior residents, depending on their year of training. However, only 31.8% of the trainees agreed with this statement (compared with 63.4% of the supervisors). To quote one of the respondents of the survey, the degree of responsibility "completely depends on the supervising physician because the legal base does provide substance for increasing competencies of the resident". However, it is worth mentioning that recently the law defining the responsibilities of the trainees was changed so there will be a legal basis for residents to practise procedures (if they are competent) with their own responsibility.

### 3.6. The principles, purposes, methods and practices for assessment of trainees are defined, stated and published

#### Estonia

Rating: 1 / -0.99

According to residency programmes<sup>188</sup> sect. 28 the evaluation takes place twice a year in compliance with "Regulations of Residency". Additional evaluation is performed by the supervisor at the end of every rotation. However, according to residents this is not substantive, but formal. Evaluation is based on written reports and the residency diary submitted by the residents that describe participation in theoretical courses, practical rotations.<sup>189</sup> A few specialities have interim examinations, but these are summative and not considered relevant in assessing the progress of the resident.

No detailed evaluation principles, purposes, methods and practices were found except for the final exam evaluation, which is explicitly explained in specialist programmes. According to the survey results, no or very little evaluation, either summative or formative, is actually undertaken. Residents have emphasised the lack of day-to-day feedback from the supervisors that would enable them to improve their skills<sup>190</sup>.

#### Latvia

Rating: 1 / -1.18

Rīga Stradiņš University's "Residency Rules of Procedure" state: "4.4. Assessing residents' knowledge, skills and competences is organised by the medical institution. Principles and basic questions of the

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<sup>188</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>189</sup> The University of Tartu Senate's Act No. 2 "Regulation of residency" ch VI. Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>190</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauuringute Keskus Praxis.

assessment directly and precisely stem from each speciality's requirements and the volume scheduled in the outline of the study course. In each study course, the resident's practical skills and theoretical knowledge is evaluated. The assessment is written down in a log book and the responsible person for speciality in the medical institution confirms it with a signature." The University of Latvia's "Residency Regulations" does not state any purposes, methods or practices for assessment of trainees, while "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>191</sup> only states methods for assessment of trainees: "After each study course a test of theoretical knowledge in the form of multiple-choice test and/or questions, clinical case analysis. Mandatory (100%) fulfilment of practical work and 100% seminar attendance." The researcher did not have access to speciality programmes or course outlines.

### Lithuania

Rating: 2 / -0.02

The methods and processes for the assessment of trainees are defined in "Ruling on doctors' training" and the respective "Rules of Residency" in both universities. However, these documents cover only the process of the final assessment of the trainees, at the end of the residency programme. More details on the assessment and evaluation of acquired skills and competences after each rotation are provided in each individual residency programme description. Yet these processes, neither the final assessment nor in-between rotation evaluations are organised systematically and there is great variation between different departments (there are cases of only formal exams, while other clinics provide a thorough and strict examination). This sentiment is also reflected in the survey, where 20.5% of the trainees agreed with the statement that: "The assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods.", while 28.2 % did not.

**3.7. A comprehensive set of assessment methods and formats are used (there is a consideration of the balance between formative and summative assessment, the number of examinations and other tests, the balance between different types of examinations (written and oral), the use of normative and criterion-referenced judgements, and the use of personal portfolio and log books and special types of examinations, e.g. objective structured clinical examinations (OSCE) and mini clinical evaluation exercise (MiniCEX))**

### Estonia

Rating: 1 / -0.99

Ongoing assessment is primarily based on written reports and residency diaries submitted by residents and supervisors.<sup>192</sup> Additional exams are provided erratically. Only final exam modes and criteria are

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<sup>191</sup> Approved in University of Latvia's Senate on 08.01.2018., Retrieved 30.07.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

<sup>192</sup> The University of Tartu Senate's Act No. 2 "Regulation of residency" ch VI. Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

stated clearly and explicitly in sections 30 and 31 of specialist programmes.<sup>193</sup> A few specialities have interim examinations, but these are summative and not considered of relevance in assessing the progress of the resident. According to the survey results, no or very little evaluation/assessment is done before the final exam and concurrent feedback from supervisors is sporadic<sup>194</sup>. There is no evidence that other assessment methods are used.

### Latvia

Rating: 1 / -1.18

The researcher did not find a list of assessment methods and formats that are used to test residents' knowledge in either university's publically available documents (speciality programmes and course outlines were not available to the researcher). From the national workshop and interviews with residents and stakeholders, only limited evidence of different assessment methods and formats was found: theoretical multiple-choice tests and essays after the end of rotation and practical skills checking by the supervisor during the rotation, and a log book about patients was seen. Stakeholders presented several different forms of evaluation used for the state exam in different specialities: multiple choice questions, clinical tasks, essays, questions, and a practical part. There was no evidence on formative assessment being used, although it is possible that some supervisors might use it informally.

### Lithuania

Rating: 2 / -0.02

The evaluation of assessment methods in both universities is conducted by the external institution, the Centre for Assessment of Study Quality, which checks the assessment methods in universities and gives advice on areas of improvement. It is documented on paper, but in practice no significant changes have been observed.

The "Rules of Residency" in both universities provide general residency assessment methods concerning the final examination and intermediate residency tests, which should only be oral or written.

Different residency programmes choose different assessment methods and formats, but there is usually no balance between different types of examinations, residents generally have written examinations. Some of residency programmes have special examinations (e.g. emergency medicine in the Lithuanian University of Health Sciences). Some of programmes have relatively good assessment methods on paper, but in practice it is usually different.

## 3.8. The assessments cover knowledge, skills and attitudes

### Estonia

Rating: 1 / -0.99

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<sup>193</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>194</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauringute Keskus Praxis.

According to residency programmes<sup>195</sup> sect. 28, the evaluation takes place twice a year in compliance with the "Regulations of Residency". Additional evaluation is performed by the supervisor at the end of every rotation. However, according to residents this is not substantive, but formal. Evaluation is based on written reports and a residency diary submitted by the residents that describes participation in theoretical courses and practical rotations,<sup>196</sup> which do not assess skills or attitudes. Few specialities have interim examinations, but these are summative and are not considered relevant in assessing the progress of the resident.

No detailed evaluation principles, purposes, methods and practices were found except for the final exam evaluation, which is explicitly explained in specialist programmes. According to the survey results, no or very little evaluation, either summative or formative, is actually undertaken. Residents have emphasised the lack of day-to-day feedback from the supervisors that would enable them to improve their skills<sup>197</sup>.

### Latvia

Rating: 2 / -0.3

Rīga Stradiņš University, in its "Residency Studies Rules of Procedure", Article 4.5. states "In each study course resident's practical skills and theoretical knowledge are evaluated. The grades of evaluation are written down in the log book and the supervisor who carried out the checking of knowledge and skills signs." University of Latvia in "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>198</sup> states "After each study course a test of theoretical knowledge in the form of multiple-choice questions and/or open questions, clinical case analysis is done." None of the universities officially mention assessing residents' attitudes. Only 36% of residents agree or strongly agree that "the assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods".

### Lithuania

Rating: 2 / -0.02

The "Ruling on doctors' training" and the respective "Rules of Residency" in both universities cover only the process of the final assessment of the trainees at the end of the residency programme. More details are described in the different residency programmes. When asked if the assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods, 35.9% of respondents disagreed or strongly disagreed with the statement, explaining:

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<sup>195</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>196</sup> The University of Tartu Senate's Act No. 2 "Regulation of residency" ch VI. Entry into force 25.05.2017. Available: <https://meditsiiniteadused.ut.ee/et/residentuur/residentuuri-eeskiri>

<sup>197</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauringute Keskus Praxis.

<sup>198</sup> Approved in University of Latvia's Senate on 08.01.2018., Retrieved 30.07.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

"Depends on the clinic. Some do a very strict and transparent exam, some do it mild and easy."

"The assessment is very formal. It doesn't provide you information about personal improvement."

"Assessment evaluates purely theoretical knowledge (same as undergraduate medical education)."

### **3.9. The reliability, validity and fairness of assessment methods are evaluated and documented**

#### **Estonia**

Rating: 0 / -2.15

No information about the evaluation and documentation of the reliability, validity and fairness of assessment methods.

#### **Latvia**

Rating: 0 / -2.23

The researcher did not find any proof of evaluating and documenting the reliability, validity and fairness or assessment methods.

#### **Lithuania**

Rating: 0 / -2.86

Unfortunately, after the analysis of the documents and written enquiries the research team was not able to find any evidence of the reliability, validity and fairness of assessment methods being systematically evaluated and documented.

### **3.10. The assessment principles, methods and practices are clearly compatible with intended educational outcomes and instructional methods and ensure adequacy and relevance of education**

#### **Estonia**

Rating: 1 / -0.99

Concurrent assessments are principally based on residency diaries and written reports submitted by residents and their supervisors. Additional exams are conducted and feedback from supervisors is received erratically. Only the procedures and criteria for carrying out the final exam are clearly stated. In addition, the final examination only assesses clinical skills and no other relevant knowledge. There is no evidence that the methods and practices of even the final exam match the intended educational outcomes and, as mentioned, many of the outcomes (especially soft skills) are not assessed (or taught) at all. Therefore, it cannot be said that the assessment principles and methods are compatible with all educational outcomes.

According to the survey results, no or very little evaluation, either summative or formative, is actually performed before the final exam, and only a few specialities have interim examinations. Residents have emphasised the lack of day-to-day feedback from the supervisors that would enable them to improve

their skills<sup>199</sup>. There is no evidence that other assessment methods are used. Regarding feedback to supervisors, assessment forms are available, but they are voluntary and rarely submitted. Focus groups have revealed that residents are afraid of submitting feedback to supervisors and training bases due to concerns over a lack of anonymity and future problems in securing a position.

#### Latvia

Rating: 2 / -0.3

Rīga Stradiņš University's "Residency Studies Rules of Procedure", Article 4.4. states: "Testing of residents' knowledge, skills and competences is organised by the healthcare institution. Principles and basic questions of the testing directly and precisely stem from each speciality's requirements and the volume scheduled in the outline of the study course. [...]" No similar publically available regulations were found for the University of Latvia. Rīga Stradiņš University's requirement for the assessment principles to stem from each speciality's requirements seem to fulfil the standard. However, since the variety of the assessment methods used seems to be limited (see standard 3.7.), it is doubtful whether they are compatible with intended educational outcomes and instructional methods.

#### Lithuania

Rating: 2 / -0.02

The "Ruling on doctors' training" and the respective "Rules of Residency" in both universities cover only the process of the final assessment of the trainees at the end of the residency programme. More details are described in each individual residency programme description. When asked if the assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods, 35.9% of respondents disagreed or strongly disagreed with the statement, elaborating:

"Depends on the clinic. Some do a very strict and transparent exam, some do it mild and easy."

"The assessment is very formal. It doesn't provide you information about personal improvement."

"Assessment evaluates purely theoretical knowledge (same as undergraduate medical education)."

### 3.11. The assessment principles, methods and practices promote trainee learning and ensure that the intended educational outcomes are met by the trainees

#### Estonia

Rating: 1 / -0.99

Residency regulatory documents do not state that the assessment methods, principles and practices should promote learning and learning outcomes and do not state the goals of them. In a few specialities, some interim examinations are conducted, but, according to qualitative information, the results are not affecting the continuation of PME and are not usually taken into account.

#### Latvia

Rating: 1 / -1.18

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<sup>199</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauuringute Keskus Praxis.

The researcher did not find a strong connection between assessment principles, methods and practices in the regulatory documents. The only allusion to it found is in Rīga Stradiņš University's "Residency Rules of Procedure", Article 4.4: "Principles and basic questions of the testing directly and precisely stem from each speciality's requirements and the volume scheduled in the outline of the study course." Study programme managers approached by e-mail in response to the question of whether in their opinion the current assessment methods promote trainee learning and ensure that the intended educational outcomes are met by the trainees provided diverse answers. One study programme manager stated: "I think so, yes. Methods are adjusted in accordance with study year and the programme acquirable in it. Methods help to determine each resident's competences in clinical work." Another study programme manager stated that the current assessment methods partly promote learning and ensure meeting of intended educational goals, another agreed that the assessment methods serve this purpose, but there are opportunities to improve them. One study programme manager replied that "...discussions between teaching staff and residents have led to thinking about introducing an assessment system that also serves as one of means to achieve educational outcomes." The same manager also mentions that in his/her speciality, hands-on materials are prepared to introduce different evaluation methods. Yet another study programme manager stated that assessment methods need to be updated to provide both formative assessment during the rotation and summative assessment after it. Another study programme manager proposed the introduction of formative evaluation taken electronically by residents themselves.

#### **Lithuania**

Rating: 2 / -0.02

The "Ruling on doctors' training" and the respective "Rules of Residency" in both universities cover only the process of the final assessment of the trainees at the end of the residency programme. More details are described in each individual residency programme description. When asked if the assessment covers knowledge, skills and attitudes and is conducted fairly, transparently and in accordance with the proposed learning outcomes and supervision methods, 35.9% of respondents disagreed or strongly disagreed with the statement, explaining: "Depends on the clinic. Some do a very strict and transparent exam, some do it mild and easy.", "The assessment is very formal. It doesn't provide you information about personal improvement.", "Assessment evaluates purely theoretical knowledge (the same as undergraduate medical education)."

### **3.12. The assessment principles, methods and practices ensure timely, specific, constructive and fair feedback to trainees based on assessment results**

#### **Estonia**

Rating: 1 / -0.99

Residency regulatory documents do not state that the assessment methods, principles and practices should ensure timely, specific, constructive and fair feedback to trainees based on assessment results. Trainees must submit residency diaries twice a year. It also contains feedback from the supervisor. Qualitative data show that the feedback is mostly sent directly to the university and residents do not see it. Another common practice is that the residents are asked to write the feedback about themselves and the supervisor only signs it. According to the survey results, no or very little evaluation/assessment

is performed before the final exam and concurrent feedback from supervisors is erratic<sup>200</sup>. In a few specialities, some interim examinations are conducted, but according to qualitative information, the results do not affect the continuation of PME and are usually not considered.

There is no evidence that other assessment methods are used.

### Latvia

Rating: 1 / -1.18

Rīga Stradiņš University's "Residency Studies Rules of Procedure", Article 3.1.2.1. requires that residents' skills, competences and knowledge is tested after each study course: "[...] After the study course the healthcare institution's responsible person, under whose supervision the resident carries out practical training, tests acquired skills, competences and knowledge. [...]" University of Latvia's "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>201</sup> also requires testing of knowledge after each study course: "After each study course a test of theoretical knowledge in the form of multiple-choice test and/or questions, clinical case analysis. Mandatory (100%) fulfilment of practical work and 100% seminar attendance." From the above it can be concluded that the summative assessments at the end of each course provide timely evaluation. Still, several stakeholders express that the summative evaluation at the end of the study course is somewhat subjective (it is stated that evaluation usually ranges from 8-10) and only represents the general impression the resident made. Consequently, constructive and specific feedback is lacking. The researcher did not find any requirements in the documentation for formative assessments performed during the study courses and thus, no requirements for timely, specific, constructive and fair feedback during the study course.

### Lithuania

Rating: 2 / -0.02

The "Rules of Residency" of Vilnius University provide that a resident should be assessed and receive feedback in the resident's electronic diary after each rotation, while the equivalent of this document in the Lithuanian University of Health Sciences states that the supervisor must assess knowledge and practical skills of the trainee, in addition to writing the characteristics about the resident. However, the implementation of these rules depends on the residency programme. When asked if the trainees are guided by means of supervision, regular appraisal and feedback that supports their development to a professional doctor, 51.1% of residents disagreed or strongly disagreed with the statement, while 58.3% of supervisors agreed or strongly agreed with the same statement. When asked to comment on this issue, the residents stated:

"We had some paperwork in which after each rotation the supervisor had to give feedback about us, but basically no one took it seriously."

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<sup>200</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 69–74. Tallinn: Poliitikauuringute Keskus Praxis.

<sup>201</sup> Approved in University of Latvia's Senate on 08.01.2018., Retrieved 30.07.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

"Residents are being supervised well enough. The practice lacks appraisal from the supervisors – they are rare and irregular. The feedback is non-existent unless you make a mistake – in such a case you are being given a lot of negative feedback leaving you emotionally affected, sometimes without any advice on what to do next time."

A supervisor also shared their opinion:

"No feedback processes! No debriefing! No constructive criticism."

## 4. The role of scientific research in postgraduate education

### 4.1. The programmes and process of training ensure that the trainee becomes able to use scientific reasoning and applies the scientific basis and methods of the chosen field of medicine

#### Estonia

Rating: 3 / 1.33

Scientific reasoning and methods are more emphasised in basic medical education (Curriculum of Medicine. Available in Tartu University study information system). A few specialities e.g. family medicine and laboratory medicine, teach them as a part of theoretical education (Residency programmes<sup>202</sup>). Some programmes expect their residents to publish a research paper as a precondition to sitting their final residency exam. The expectations from this paper, however, vary: it could be an article in the local *Eesti Arst*, a peer-reviewed scientific magazine of general medicine, a paper published in a peer-reviewed international journal, or it could be a monograph written as the result of pursuing a PhD degree. Even where there is a formal requirement to publish, the research and writing is expected to be completed in the resident's spare time, in addition to the normal working hours of their residency. In some departments, clinical seminars take place where (primarily) residents make presentations and introduce new discoveries and directions in the field of medicine to other residents and medical specialists.

The claim: "Scientific approach has a central role in my field of residency. Medical research, including the basics of clinical research and clinical epidemiology have been tackled." was agreed with by 56% of residents and 58% of supervisors, while 19% and 24% respectively found it difficult to say. Residents mentioned that they agree with the first part of the claim i.e. scientific reasoning and that it is mainly used and emphasised, although intuitive reasoning is still used by some older doctors. Training in scientific methods is more thought to be a part of basic or doctoral studies.<sup>203</sup> Therefore, it can be said that there is no structured training in scientific methods and reasoning for all residents.

#### Latvia

Rating: 3 / 0.92

Currently, according to Rīga Stradiņš University's "Residency Studies Rules of Procedure" and the University of Latvia's "Overview of study branch "Healthcare" for 2016/2017", chapter "Medicine. Second level professional higher education (short progr.) 48721"<sup>204</sup> writing a scientific research paper is mandatory in order to graduate from residency in all speciality programmes in both universities. Thus, as one supervisor comments, the statement: "Throughout postgraduate medical training, trainees achieve the knowledge and ability to apply the scientific basis and methods on their chosen field of medicine; the foundation and methodology of medical research on their chosen field of medicine,

<sup>202</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>203</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 87–91. Tallinn: Poliitikauringute Keskus Praxis.

<sup>204</sup> Approved in University of Latvia's Senate on 08.01.2018., Retrieved 30.07.2018., Available: [https://www.lu.lv/fileadmin/user\\_upload/lu\\_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS\\_APRUPE\\_2017\\_PUB.pdf](https://www.lu.lv/fileadmin/user_upload/lu_portal/dokumenti/parskati-un-zinojumi/Pasnovertejumi/2017/VESELIBAS_APRUPE_2017_PUB.pdf)

including clinical research and clinical epidemiology are introduced." is covered by "At the end of the study, residents write an independent research paper and defend it in commission." The process of writing the research work should guarantee that the residents become able to use scientific reasoning as well as apply the scientific basis and methods to their chosen field of medicine. However, 28% of residents answered they disagree or strongly disagree with the statement: "Throughout postgraduate medical training, trainees achieve knowledge of and ability to apply the scientific basis and methods on their chosen field of medicine; the foundation and methodology of medical research on their chosen field of medicine, including clinical research and clinical epidemiology are introduced." and 19% of supervisors also answered they disagree or strongly disagree to the statement above, providing evidence that there are situations when the programme and process of training does not ensure the fulfilment of the above. The residents argue that some residency speciality programmes include a course in research methods: "There is a brief course in statistical data analysis, but it is not specific to the chosen field" and other programmes do not: "In our medical education we really skip the part where someone professional could give lectures about types of research, explaining basic information and introducing the resident with evidence-based medical studies." Another resident comments: "It is rather due to "learning by doing" as resident research work is mandatory for finishing training. But some seminars/consultations for this purpose would really be helpful."

### Lithuania

Rating: 3 / 1.31

The skill of applying scientific reasoning is, in general, covered during undergraduate education. However, different programmes of residency provide that trainees should be able to apply evidence-based medicine, which is basically taught during clinical work. When asked if the programme in their chosen field of medicine includes clinical work and relevant theory or experience of clinical decision-making, 61.0% of the residents agreed or strongly agreed with the statement, elaborating:

"Sometimes there are too many opinions from different supervisors on a specific decision. It comes out of a lack of protocols and algorithms that would be approved for our department. Sometimes a lack of evidence-based decisions."

"You hear some bits here, some bits there, glue them together to paint a picture."

## 4.2. The training includes formal teaching on critical appraisal of the literature and scientific data

### Estonia

Rating: 2 / 0.17

Formal teaching on critical appraisal of the literature and scientific data is handled in basic medical education (Curriculum of Medicine. Available in Tartu University study information system). It is not separately handled in PME. Programmes include it as independent theoretical education or recommended literature (Residency programmes<sup>205</sup>. Sect. 26, 32.). Around 40% of residents agreed with the claim: "During residency, I have received teaching/supervision for the critical assessment of

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<sup>205</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

specialist academic literature and databases.", while 13% found it difficult to say. Residents mentioned that the skill comes from personal experience or from doctoral studies, but it is, in most cases, not formally taught even though they feel the need for it.<sup>206</sup>

### Latvia

Rating: 2 / -0.3

Comments expressed by residents in the survey testify that few speciality programmes include a specific study course on medical research. However, since every trainee completes a research project during residency and has a supervisor, the supervisor might give some teaching and advice on critical appraisal of the literature and scientific data. An observation was expressed in the national workshop that if the supervisor has a doctoral degree, the trainee's research project ends up being much more valuable. Around 32% residents disagree or strongly disagree, 29% neither agree nor disagree, and 39% agree or strongly agree with the statement: "The programme in my chosen field of medicine includes formal teaching on critical appraisal of the literature and scientific data." The comments include that there are "...4 weeks of basics learning", "...we have a 4-lecture course, yes", "...some elective courses", "On paper, yes, in reality – no", and "It also depends on yourself – if you have an interest, nobody will refuse to support your initiatives". Thus, it is concluded that some programmes include this training, and some do not. However, some training is acquired while carrying out the mandatory scientific research work.

### Lithuania

Rating: 2 / -0.02

The formal teaching of critical appraisal of literature is covered to some extent during undergraduate education, and during postgraduate education depends on each individual residency programme, making this practice somewhat rare. Journal Clubs have been recently established in the Lithuanian University of Health Sciences (but only in some departments), where trainees gather informally to learn this skill.

When asked if the programme in their chosen field of medicine includes formal teaching on critical appraisal of the literature and scientific data, equal proportions of residents (36.7%) (strongly) agreed and (strongly) disagreed with the statement. As one trainee put it:

"One seminar in 4 years does not prepare one for that very well."

and,

"It lately includes self-teaching on critical appraisal because of Journal Club seminars, which was implemented by me with the help of a young doctor after seeing an example of it abroad."

And,

"Most people do it informally. It is also covered to some extent in undergraduate education, although the level of quality is debatable."

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<sup>206</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 109–111. Tallinn: Poliitikauuringute Keskus Praxis.

### 4.3. The trainees are encouraged to engage in medical research and quality development of health and the healthcare system

#### Estonia

Rating: 2 / 0.17

Quality development of health and the healthcare system is stated as one of educational outcomes in all programmes. Only a few specialities, e.g. family medicine and laboratory medicine, include it, and also research, as a part of theoretical education. (Residency programmes<sup>207</sup>). Around 41% residents agreed with the claim: "During residency, I had/have the necessary preconditions for performing specialist scientific research on a topic of my interest.", while 31% found it difficult to say. Some residents mentioned they are not interested in research. It was mentioned that research is only possible and encouraged while conducted in addition to residency, i.e. during one's free time. Residents said that they do not simply have enough free time. It is more seen as a part of doctoral studies than residency.<sup>208</sup>

#### Latvia

Rating: 2 / -0.3

As mentioned in standard 4.1., a scientific research project is mandatory in both universities' PME programmes, thus trainees do need to engage in medical research. Rīga Stradiņš University also organises an annual resident scientific research work conference which can be seen as an encouraging factor. Moreover, there are opportunities for residents to attend conferences in their specialities abroad and this is financially supported by the hospitals or universities. One resident's comments that: "There are a lot of opportunities for research papers and conferences in Latvia and abroad for residents. The universities encourage residents and students, but our government and hospitals don't." A majority of 57% residents agree or strongly agree with the statement: "The trainees are encouraged to engage in medical research on a topic of their choice.", but 26% neither agree nor disagree and 17% disagree or strongly disagree. The disagreement is supported by comments such as: "...forced more than engaged; not necessarily in the field of their choice.", "We don't have a lot of possibilities and varieties. The topics are the same every year.", "Our supervisor is mostly pushing the topics that are more interesting to him/her.", "...only very few supervisors do research that is published in representable medical journals.", and "The professors want us to write papers, so they can fulfil their quota. If you have an interest – do it on your own time." The topic of the lack of time for medical research is a recurring theme: "Almost no medical research, no encouragement. You can do it if there is any free time for that and you have your own interest, but usually no help or support."

#### Lithuania

Rating: 3 / 1.31

Most of the residency programmes provide that trainees must perform research in order to complete their studies. After discussions in focus groups we came to the conclusion that there is huge diversity in different departments regarding this issue – some of the departments have compulsory research

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<sup>207</sup> Available: <https://meditsiiniteadused.ut.ee/et/residentuur/erialade-programmid>

<sup>208</sup> Residentuur 2017. Hindamise koondaruanne. Lisa 1, pp. 106–108. Tallinn: Poliitikauuringute Keskus Praxis.

work for every trainee, while in others it is optional. In addition, research is encouraged by prioritising the mobility funds for conferences for trainees who are actively participating by presenting their research. When asked if the trainees are encouraged to engage in medical research on a topic of their choice, 51.4% of the respondents agreed or strongly agreed with the statement. When elaborating on their answer, some trainees emphasised the lack of teaching of this skill and the mandatory nature of it in some cases:

"Trainees must produce research work, but do not get so much help to do it."

"The trainees are not exactly encouraged – they are made to engage, and they are given penalties if they don't make the deadlines on time."

"Yes, if you want to, you can do that freely."



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