PROCEDURE for approval of National Registration Schemes by EFOMP

Introduction

EFOMP has recently publicised its updated recommendations concerning national registration schemes (PS 6.1), guidelines on national schemes for Continuing Professional Development (PS 10.1), education and training (PS 12.1) and the role, responsibilities and status of medical physicists and medical physics experts (PS 7.1 and PS 16). In the case of the areas covering the application of ionizing radiation in healthcare, the qualifications framework and recognition requirements for Medical Physics Experts has been laid out in RP 174. It has to be taken into account however, that not all medical physicists are working in the domains where ionizing radiation is used. This is why EFOMP Policy Statement 12.1 extended the ideas of RP174 to all Medical Physics specialties. Nevertheless the field of radiation protection (and likewise the principles of dosimetry) should not be unknown to any medical physicist and the essence of a medical physicist is that they can adapt to any clinical specialty of interest.

Criteria for admission to an education and training programme

This document deals with the procedure and the criteria for approval of a national registration scheme. The most important criteria are the admission requirements and the contents of the education and training programme.

According to RP 174 and EFOMP Policy Statement 12.1 a medical physicist should have an EQF level 6 (e.g. bachelor degree) in physics or equivalent (e.g., appropriate engineering) and an EQF level 7 (e.g. master degree) in medical physics or equivalent (e.g., physics or engineering Masters plus the knowledge and skills normally found in a Medical Physics masters). This refers to the Educational Stage as described in EFOMP Policy Statements 6.1 and 12.1 and this phase has to be part of the national registration scheme.

Structure and contents of an education and training programme

Further education and training of the MPE comprises two phases. In the first phase the candidate MPE is made familiar with the clinical environment and their knowledge of the medical physics domain is both broadened and starts to be deepened in a chosen specialty (e.g., radiation oncology, diagnostic and interventional radiology, nuclear medicine, audiology, neurology). This leads to the Clinical Competence Stage described in PS 6.1 and PS 12.1 and has to be a recognizable and well-described section of the education and training programme (approximately 2 years full-time equivalent).

The second phase of the education and training programme focuses more deeply on the chosen specialty and comprises a further 2 years of theoretical education and clinical experience. This phase of the education and training programme has to be stated clearly, however some overlap with the first phase is quite natural. Completion of the second phase finally leads to the Medical Physics Expert recognition in the chosen specialty. The education and training programmes for both phases comprise themes like theoretical development, professional attitude, reporting and presentation, clinical skills and social competences (ref. CanMEDS). According to RP 174 high-level radiation protection certification (e.g., level 3 in the Netherlands) by the competent authority or equivalent is

obligatory in the case of ionizing radiations, although this may be *recommended* for all physicists.

Main criteria for acceptance of a national registration scheme

EFOMP PS 6.1 mentions 8 criteria for approval of a national registration scheme. These are summarized here.

1. The national registration scheme must provide a clear statement of its aims (including the level of recognition).
2. A Registration Council or equivalent must be in charge. (The presence of an EFOMP delegate in the Council may be considered).
3. Clear criteria of scientific knowledge and practical competencies for registration must be available (see also 'Criteria for admission to an education and training programme and its contents').
4. Education and training programme complying with EFOMP recommendations and in the case of specialties involving ionizing radiation must be in accordance with RP 174.
5. The national registration scheme must define specialty areas (not limited to specialties involving ionizing radiation as explained in PS 12.1).
6. A regular re-registration based on continuous professional development (CPD) scheme for registered MPE must be available including criteria for re-registration (e.g. number of credits).
7. Agreed Rules of Professional Conduct in line with the EFOMP Policy Statement 11 must be in place and acted upon.
8. Professional misconduct must be defined, as must be a procedure for disciplinary action if needed.

Procedure for approval of national registration schemes

The procedure for approval of a national registration scheme by EFOMP comprises five steps.

1. The procedure starts when a completed request for approval form is sent to the chair of the EFOMP Professional Matters Committee. This form is designed to give answers to questions related to the 8 criteria mentioned in the previous paragraph and is signed by the president of the submitting NMO. The documents describing the NRS do not have to be in English. If not, the n each document should be accompanied by a brief summary in English. It is also recommended that all criteria have an explanation in English. This can be provided in a separated document prepared by the NMO to complement the application form.

2. The PMC chair checks if the form is filled in completely and signed by the president of the NMO. Accepted forms are distributed among the PMC members for evaluation and judgment. A review period of 4 weeks is usually allowed for PMC members.

3. PMC members do evaluation on the basis of the 8 criteria mentioned previously. When all criteria are met the PMC member recommends approval of the submitted NRS. When there are situations when some of the criteria (1-5) is not met, final decision of approval or rejection will be made by the PMC chair based on the majority opinion of the PMC members. Evaluation is carried out using a prepared NRS evaluation form. The degree of fulfilment of the criteria will be judged by the EFOMP Professional Matters Committee members, taking in consideration the additional information

concerning implementation of these criteria regarding the registration scheme, as provided by the applicant.

PMC members are not to judge the application of their own NMO. In the case of the chair's NMO, his/her duties are taken over by the vice-chair or past chair.

4. PMC members report their findings within 4 weeks and give their final judgment (approved or rejected) to the PMC chair. The PMC chair assembles all reports and writes a summary. If the final judgement from the PMC members is rejection, the PMC chair contacts the NMO president in order to discuss further steps and provide recommendations for improvement.

5. In the case of approval from the PMC members, the PMC chair sends the report to the EFOMP Board (i.e. the General Secretary) for formal approval by EFOMP. EFOMP Board members may accept or reject the recommendation of the PMC chair within 2 weeks. The Secretary General informs the NMO president about its decision. The approval has a validation time of 10 years after which the NMO has to apply for renewal of the approval. In cases where not all the criteria are met, approval can be given for shorter period of time and the NRS will be re-evaluated after a specific time decided by the PMC chair (usually 5 years).

Literature

PS 6.1 S. Christofides, J. Isidoro, C. Pesznyak, L. Bumbure, F. Cremers and W. F.O. Schmidt. The European Federation of Organisations for Medical Physics Policy Statement No. 6.1: Recommended Guidelines on National Registration Schemes for Medical Physicists. Physica Medica 32 (2016) 1-6.

PS 7.1 S. Evans, S. Christofides and M. Brambilla. The European Federation of Organisations for Medical Physics. Policy Statement No. 7.1: The roles, responsibilities and status of the medical physicist including the criteria for the staffing levels in a Medical Physics Department approved by EFOMP Council on 5th February 2016. Physica Medica 32 (2016) 533-540

PS 10.1 S. Christofides, J. Isidoro, C. Pesznyak, F. Cremers, R. Figueira, C. Swol, S. Evans, A. Torresin. The European Federation of Organisations for Medical Physics Policy Statement No. 10.1: Recommended Guidelines on National Schemes for Continuing Professional Development of Medical Physicists. Physica Medica 32 (2016) 7–11.

PS 12.1 C.J. Caruana, S. Christofides and G.H. Hartmann. European Federation of Organisations for Medical Physics (EFOMP) Policy Statement 12.1: Recommendations on Medical Physics Education and Training in Europe 2014. Physica Medica 30 (2014) 598-603.

PS 16 C. J. Caruana, V. Tsapaki, J. Damilakis, M. Brambilla, G. Martín Martín, A. Dimov, H. Bosmans, G. Egan, K. Bacher, B. McClean. EFOMP policy statement 16: The role and competences of medical physicists and medical physics experts under 2013/59/EURATOM. Physica Medica 48 (2018) 162-168.

RP 174 EC. (2014) RP174 European Guidelines on Medical Physics Expert. DOI:10.2833/18393

CanMEDS J. Frank, The CanMEDS project: The Royal College of Physicians and Surgeons of Canada moves medical education into the 21st century (https://www.researchgate.net/publication/271702100_A_history_of_CanMEDS_-_chapter_from_Royal_College_of_Physicians_of_Canada_75th_Anniversary_history).

NATIONAL REGISTRATION SCHEME EVALUATION FORM					
Country		NMO			
Contact person		NMO president			
E-mail address		E-mail address		Date	

Does the NRS give approval for more than one subspeciality?	**Yes**	**No**	**Give some details**
Medical Physics subspecialties for which the registration applies [1])			

	Criterion		Remarks by the NMO	Note by PMC member
1.	A clear statement of the aims of the scheme including the levels of recognition is available.	Yes/No		
2.	A properly constituted Registration Council is installed and functioning.	Yes/No		
3.	A complete set of criteria concerning scientific knowledge and practical competencies is defined and used for registration. [2])	Yes/No		
4.	An education & training programme can be provided that is consistent with the EFOMP policy statement on education and training (EFOMP PS 6.1) and the EU guideline (RP 174).	Yes/No		
4.1	How many years is the basic training to become a medical physicist?			
4.2	How many years is the advanced training to become a medical physics expert?			
5.	The Registration Council/competent authority maintains a list of registered MPE's.	Yes/No		
5.1	Give details of who maintains the list of MPEs (name /			

	website/contact details)			
5.1	Approximately how many MPEs are currently registered in your country			
6.	Registration is renewed at least every five years based on evidence of continuing activity in relevant areas (EFOMP PS 10.1).	Yes/No		
7.	Rules of Professional Conduct are devised and enforced by the NMO (EFOMP PS 11).	Yes/No		
8.	The NMO has drafted regulations for Professional Misconduct which includes a procedure for notification and disciplinary action.	Yes/No		

[1]) Examples of expert areas are radiotherapy, diagnostic and Interventional radiology, nuclear medicine, hospital physics etc.).

[2]) It is recommended that these are in line with the learning outcomes prescribed in RP174 at the appropriate level in order to meet the requirements of paragraph 2 of article 49a of Directive 2013/55/EU)

Member of Professional Matters Committee			NMO	
Judgment	Approved or rejected		Date	
Explanation				
Recommendation				