PORTUGAL FACING THE NEW EUROPEAN GUIDELINES FOR THE MEDICAL PHYSICS EXPERT

Ana Rita Figueira¹², Esmeralda Poli³, Jorge Isidoro², Maria do Carmo Lopes³

¹ Coordenadora da Divisão de Física Médica da Sociedade Portuguesa de Física (DFM-SPF)
² Comissão Técnica dos Assuntos Profissionais da DFM-SPF
³ Comissão Técnica de Formação da DFM-SPF
SUMMARY

- INTRODUCTION
- MPE EU Guidelines
- PRESENT PORTUGUESE SITUATION
- CONCLUSIONS
INTRODUCTION


Dec-Lei n. 180/2002

Definition of Medical Physics Expert

Definitions of Qualified Medical Physicist

Especialista em FM

Establishes MP minimum staffing levels
Council Directive 97/43/Euratom (MED Directive) defines the Medical Physics Expert (MPE) as "an expert in radiation physics or radiation technology applied to [medical] exposure, whose training and competence to act is recognized by the competent authorities; and who, as appropriate, acts or gives advice on patient dosimetry, on the development and use of complex techniques and equipment, on optimization, on quality assurance, including quality control, and on other matters relating to radiation protection".
INTRODUCTION


Dec-Lei n. 180/2002

Definition of Medical Physics Expert

Definitions of Qualified Medical Physicist

Establishes MP minimum staffing levels

Físico Qualificado em FM

Medical Physics Expert

Especialista em FM

INTRODUCTION

Establishes MP minimum staffing levels
INTRODUCTION

Revised BSS Directive

New MPE definition
MPE with strengthened role

EU Guidelines on MPE

• Roles and Key Activities
• Qualification and Curriculum Frameworks
• Recommendations for the Recognition of MPE
• Staffing Levels

Dec-Lei n. XXX /2017

Training and Qualification Framework for MP in Portugal
The **Medical Physics Expert European Project**, launched on 2010, had as one of its objectives to produce a guidance document to Member States on implementing the new BSS Directive recommendations.

**EFOMP** as main partner.

A draft of this document is available and it will be released after the final aproval of the Directive as RP document from de EC.

http://portal.ucm.es/web/medical-physics-expert-project/inicio
GUIDELINES FOR THE MPE

- It contains recommendations on harmonising MPE education, training and recognition requirements in the EU.

- It makes recommendations for the most appropriate education and training framework, based on the European Higher Education Area and on the European Qualifications Framework for Lifelong Learning and proposes detailed syllabuses for the MPE education and training.

- Also it contains recommendations on the MPE staffing levels necessary to ensure adequate radiation protection of patients, depending on the size and type of the radiological practice.
Chapter 4 concerns with the Recognition of the MPE and includes a series of Recommendations to Member States starting with the following statement:

“In order to reach harmonisation in the recognition of the MPE and to allow free mobility of the MPE between the Member States it is recommended that a formal mechanism for recognising an individual’s status as an MPE should be put in place in each Member State”
GUIDELINES FOR THE MPE

Recommendations

- Each Member State should consider designating, through a legal instrument, a Competent Authority specifically for the recognition of the MPE.

- Recognition should be achieved by registration. It is highly recommended that a professional register should be kept by an official authority (e.g. Ministry of Health or Radiation Protection Authority). This task could also be delegated to a professional body such as professional medical physics societies if an official mandate is given.
GUIDELINES FOR THE MPE

Recommendations

- The Competent Authority designated for the recognition of the MPE, should **use the Qualifications Framework and KSC of the MPE specified in the... document**, for the recognition of the MPE to Level 8 of the EQF.

- The **educational establishments** of each Member State involved in medical physics education and training should **use the KSCs of the present guidelines**.
Qualification Framework for the Medical Physics Expert (MPE) in Europe

MPE: “An individual having the knowledge, training and experience to act or give advice on matters relating to radiation physics applied to medical exposure, whose competence to act is recognized by the Competent Authorities” (Revised BSS)

The Qualifications Framework is based on the European Qualifications Framework (EQF). In the EQF learning outcomes are defined in terms of Knowledge, Skills, Competences (KSC) (European Parliament and Council 2008/C 111/01)

**EDUCATION**

- **EQF Level 6** (e.g., Bachelor with 180 - 240 ECTS)
  - (i)
- **EQF Level 7** (e.g., Master with 90 - 120 ECTS)
  - (iii)
- **Physics or equivalent**
  - (ii)

**CLINICAL TRAINING**

- **Clinical Certification in Medical Physics Specialty**
  - (vi)
  - Structured accredited clinical training residency in the specialty of Medical Physics in which the candidate seeks clinical certification. The duration should be typically two full-time year equivalents**
  - (vii)

**ADVANCED EXPERIENCE and CPD**

- **EQF Level 8 in Medical Physics Specialty**
  - (viii)
  - Structured accredited advanced experience and CPD in the specialty of Medical Physics in which the candidate seeks certification as MPE. The duration would be an additional minimum of two full-time year equivalents***
  - (ix)

**RECOGNITION**

By Competent Authorities as MPE in Medical Physics specialty

**RE-CERTIFICATION**

5 year CPD cycle

---

* Should include, as a minimum, the educational components of the Core KSC of Medical Physics and the educational components of the KSC of the specialty of Medical Physics (i.e., Diagnostic & Interventional Radiology or Nuclear Medicine or Radiation Oncology) for which the candidate seeks clinical certification. When this element of specialization is not included it must be included in the residency.

** The EQF level of the residency is intermediate between EQF levels 7 and 8.

*** In countries where the MPE is required to be certified in more than one specialty of Medical Physics the number of years would need to be extended such that the MPE will achieve level 8 in each Specialty.
Recommendations

- To allow the mobility of the MPE between Member States, it is recommended that the education and training of each MPE be recorded in a document that can be used as proof of the recognised competence.

- MPE education and training requires formal steps that should be implemented by the competent authorities as recommended in the Qualification and Curriculum Frameworks to be found in this document.
GUIDELINES FOR THE MPE

Recommendations

- It is highly recommended that **MPE recognition should be overseen by a joint board of experts from the various stakeholders** (i.e. Ministry of Education, Ministry of Health, Radiation Protection Authorities and Professional Societies, as appropriate).

“The implementation of the above recommendations will ensure that the recognition of the MPE is harmonised throughout the Member States and will facilitate the mobility of MPEs from one Member State to the other.”
CURRENT PORTUGUESE SITUATION

- When the 97/43/Euratom Directive was transposed into national regulation by Dec.-Lei n.º180/2002, the terms “Qualified Medical Physicist” and “Medical Physics Expert” were introduced for the first time.

- At that time Portugal had a training and certification framework for Hospital Physicists, regulated by Decretos-Lei n. 414/91 and n. 501/99.

- These existing professionals were working with a title of “Especialista em Física Hospitalar” (Hospital Physics Specialist), that could be obtained by those having a university degree in Physics or Physics Eng. after a 2 years supervised internship in a certified hospital.
CURRENT PORTUGUESE SITUATION

- This training process of Hospital Physicists has never worked on a regular basis and did not meet the country needs.
- In recent years the process has completely stopped due mainly to financial issues and changes in labor regulations (last 5 candidates were admitted in 2004!)
- There only about 30 of these Hospital Physicists working in public and private hospitals.
- Since the number of radiological installations did not stop growing, namely in Radiotherapy and Nuclear Medicine, private and public hospitals ended up hiring physicists without adequate training or professional certification.
CURRENT PORTUGUESE SITUATION

- Decreto-Lei n. 180/2002 did not incorporate this existing training and education program neither created or suggested an alternative education and training framework for QMF or MPE.

- **Yet** it establishes the mandatory availability of these professionals in hospitals!
Since 2002...
CURRENT PORTUGUESE SITUATION

- Since then the necessary regulation to implement these definitions was never published except for Decreto-Lei n. 72/2011.

- This Decreto-Lei n. 72/2011 concerns the registration and recognition as Medical Physics Experts of those professionals already working for more than 5 years.

- This recognition process, not yet concluded, is unfortunately a simple administrative process in which the only requested documents to the candidates are an education certificate and a declaration from the employer.
CONCLUSIONS

- This ongoing recognition process has several limitations and the prospective candidates for MPE status will not be formally assessed to ensure that they meet the education and training requirements.

- Concerning this situation, last February, the President of EFOMP wrote directly to the Portuguese authorities stating among other things:

  “A person who has not received proper training is a hazard to patients, as confirmed by recent accidents related to the use of radiation in medicine, reported in countries such as Spain, France, UK and the USA.”
There are no recognized Medical Physics Experts in Portugal and neither is there a functioning training and certification framework for these professionals.

Medical Physics is not yet recognized by the authorities as a regulated health care profession, as it is in most EU countries.

This is an urgent situation and Portugal should not wait until the transposition of the new BSS directive because it is not complying with its own legislation and 97/43/Euratom Directive.
CONCLUSIONS

- **DFM – SPF** (Medical Physics Division of the Portuguese Physics Society) as the national member organization in EFOMP and IOMP can and should play a role in matters related to MP.

- During last years we have continuously alert the authorities to the necessity of establishing an Education, Training and Certification Framework for the Medical Physicists, but without any consequences.

- We defend that only after this framework for the profession is established makes sense to recognize those already working for several years.
CONCLUSIONS

- To comply to EU Guidelines on MPE we will need:
  - Coordination between National Authorities and Universities to approve Master Degrees corresponding to the recommended core curriculum
  - Accreditation of hospitals as national training sites for MP (minimum requirements, staffing MP levels, etc.)
  - Approval of a national CPD scheme
  - Professional certification and registration by Health Authorities
THANK YOU FOR YOUR ATTENTION