EFOMP & ALARA

Andy Rogers

EAN Workshop #20

02/10/2023

In a neat twist, the views expressed are those of EFOMP, not necessarily the speaker

EFOMP
EUROPEAN FEDERATION OF ORGANISATIONS FOR MEDICAL PHYSICS

What is EFOMP?

- Founded in London 1980
- Professional body representing medical physicists (9,000) across Europe
- Structure: National Member Organisations [36] & Individual Members
  - NMO’s run the show
  - Individual members access education

Houses of Parliament, London, UK.

Medical Physics
European Meeting

London U.K.
May 9th - 11th 1979

at the
Medical Society of London,
Lettsom House,
11 Chandos Street,
Cavendish Square,
London W1M 0EB

Westminster Abbey, London, UK.

Organised by:
The Hospital Physicists' Association,
47 Belgrave Square,
London SW1 8QX

Founder Members of EFOMP at the inaugural meeting in London

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What does it actually do?

- Mission
  - **Harmonise & advance** MP both in professional clinical & scientific expression
  - **Strengthen** & make activities of **NMOs more effective** by exchange of professional & scientific info by formulating common policies & promoting education & training

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What's this got to do with ALARA?

- Two main areas;
  - Promoting and defining roles/responsibilities of the 'Medical Physics Expert'
  - Harmonising practice by means of EFOMP protocols
- Sounds simple, but what are EFOMP doing?
- Let's start with the MPE …

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MPE – Recognition, Role & Issues

- EFOMP Malaga Statement
  - EFOMP recognition of National Registration Schemes
  - Based upon existing EFOMP education & training framework for MPEs

Contents lists available at ScienceDirect

Physica Medica

journal homepage: www.elsevier.com/locate/ejmp

EFOMP Malaga Declaration 2023: An updated vision on Medical Physics in Europe

Brenda Byrne [a,*], Loredana Marcu [b], Lorenzo Nicola Mazzoni [c], Carmel J Caruana [d], Amanda Barry [e], Guadalupe Martín Martín [f], Michele Stasi [g], Samuel Ruiz [h], Antonio Lopez Medina [i], Kalliopi Platoni [j], Ad J.J. Maas [k], Sam Agius [l], Efi Koutsouveli [m], Paddy Gilligan [n]

The first step to ensure harmonization is the approval by EFOMP of the NRS for MPEs of each NMO [3]. In view of the above, EFOMP introduced a new evaluation procedure in 2018 based on a number of criteria including knowledge, skills and competences (KSCs) required for an MPE as detailed in Report No 174. EFOMP plans to submit an application to the European Commission requesting the profession of Medical Physics Expert to become a regulated profession based on this common education and training framework. This can only benefit our

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MPE – Role & Issues

- EFOMP Malaga Statement
  - Updates their desire for the role of MPE
  - 'Responsible for RP activities in hospitals [patient, staff, visitors & public]'
  - RPE in hospitals should be an MPE
  - Still a long way to go to meet these ambitions

EFOMP adopts the following position regarding the responsibility of Medical Physicists in the field of Radiation Protection in hospitals: "The Medical Physics Expert (MPE) as defined in the directive 2013/59/EURATOM should be the healthcare professional to supervise and assume the responsibilities for radiation protection activities in hospital settings, including patients, working staff, members of the public and visitors. The Radiation Protection Expert (RPE) in hospital settings should be an MPE, since medical physicists have the highest level of radiation physics knowledge and training".

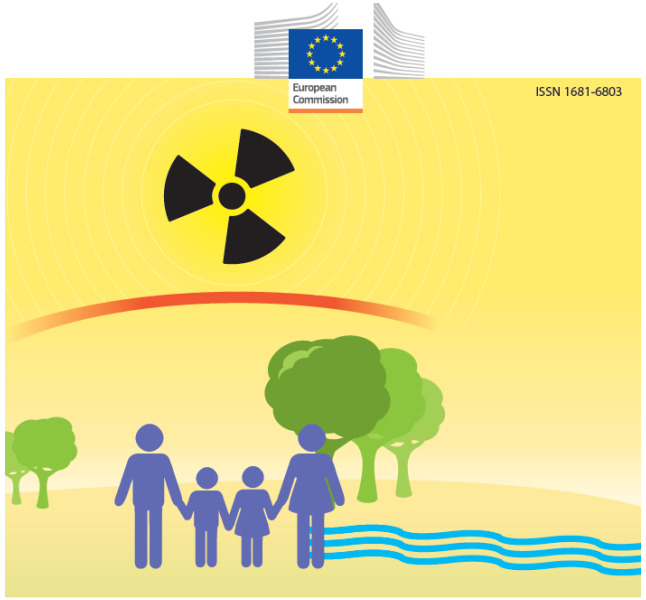
EFOMP recommends dividing national RPE registers into two groups:

i. RPEs responsible for radiation protection in medical practices,
ii. RPEs responsible for all other practices that involve the use of ionising radiation.

"The minimum requirement for RPEs entering a national register for radiation protection in medical practices should be recognition as an MPE by the national authority." EFOMP outlines the importance of a rapid application of this statement where necessary, to ensure safe and efficient radiation protection for all.

MPE – Role & Issues

- So, key role of MPE is, with the clinical team, ALARA for both patient & staff doses
- This requires adequate numbers of MPEs to deliver this role
- EFOMP has published staffing level guidance (‘accepted’ by EU)
- I suspect no country currently meets these levels
- In UK we have a gathering crisis



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EFOMP Policy Statement

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 ☆

Stephen Evans [a], Stelios Christofides [b], Marco Brambilla [c]

[a] EFOMP, Fairmount House, 230 Tadcaster Road, York YO24 1ES, UK
[b] SC Biomedical Research Foundation, P.O. Box 24039, 1700 Nicosia, Cyprus
[c] Medical Physics Department, University Hospital of Novara, 28100 Novara, Italy

MPE – UK Role & Issues

- UK regulates by defining how ‘available’ MPEs are.

Expert advice

14.—(1) The employer must ensure that a suitable medical physics expert is appointed and involved, in accordance with paragraph (2), in relation to every type of exposure to which these Regulations apply.

(2) A medical physics expert must—

(a) be closely involved in every radiotherapeutic practice other than standardised therapeutic nuclear medicine practices;

(b) be involved in practices including standardised therapeutic nuclear medicine practices, diagnostic nuclear medicine practices and high dose interventional radiology and high dose computed tomography;

- Historically, more NM MPEs than IR
- I am probably only UK MPE only doing fluoro ☹

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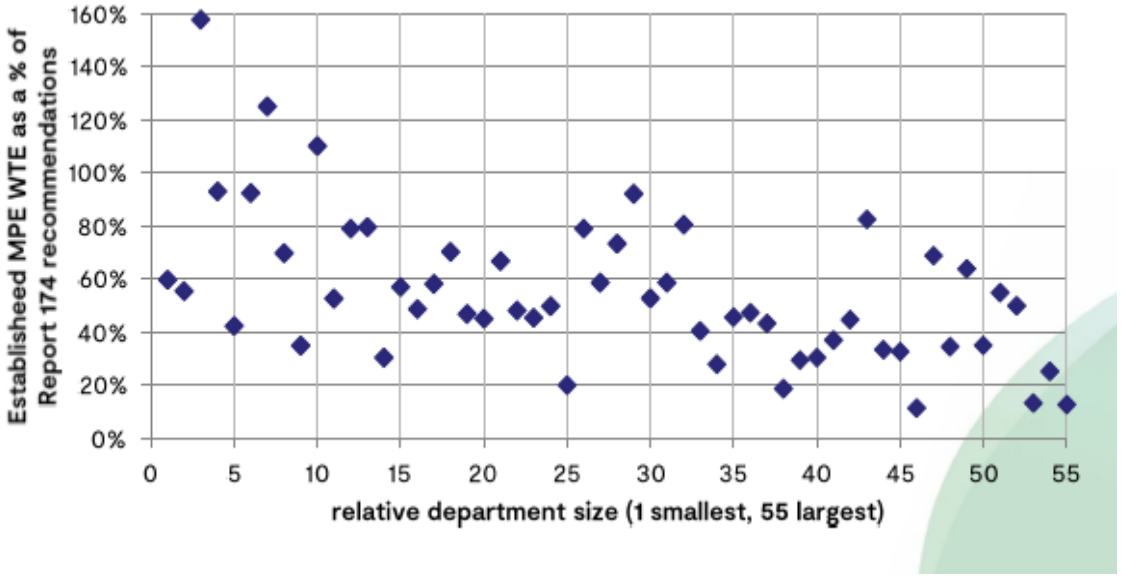
MPE – UK Role & Issues

- UK NMO [IPEM] has undertaken workforce survey & tries to use EFOMP levels as target.

IPEM Institute of Physics and Engineering in Medicine

Report on the 2021 Survey of the Diagnostic Radiology and Radiation Protection Workforce



Recommendations

1) UK DR&RP services should be aiming for staffing levels as per EFOMP and EU report 174 recommendations. While there may be economies of scale for larger departments, all aspects of a comprehensive service should be provided

TOO FEW MPEs ≡ TOO LITTLE ALARA

Now the positive news ☺

EFOMP is very active scientifically in improving practice

Quality control in cone-beam computed tomography (CBCT)

EFOMP-ESTRO-IAEA protocol

EFOMP European Federation of Organisations for Medical Physics

ESTRO

IAEA International Atomic Energy Agency

1. ENER / D3 / 2021 / 253-3 'SAMIRA study on the implementation of the Euratom and the EU legal bases with respect to the therapeutic uses of radiopharmaceuticals-SIMPLERAD'

/ 2019

According to the **SAMIRA Action Plan**, the consortium of the **SIMPLERAD project** aims to ensure EU citizens have access to high-quality and safe nuclear technologies in medicine. The general objectives pillars to be addressed to meet this challenge are the following:

- Improve the understanding of the links and interdependencies between the European pharmaceutical legislations and Euratom radiation protection requirements
- Highlight potential barriers to implementation
- Propose practical guidance and recommendations to advance a coherent implementation of these requirements with respect to the therapeutic use of radiopharmaceuticals
- Address quality and safety issues related to the current use and introduction of novel therapeutic radiopharmaceuticals into clinical practice, including requirements for dosimetry, the role of MPEs, release of patients from hospital, and management of radioactive waste

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4. ENER/D3/2021-253-2 'SAMIRA Study on the Implementation of Council Directive 2013/59/Euratom Requirements for Medical Equipment with Respect to Monitoring and Control of Patient's Radiation Exposures'

The specific objective of the study is to support Member States in the implementation of the Council Directive 2013/59/Euratom requirements for medical radiological equipment.T project aims at:

- Collecting and analysing up-to-date information on the implementation of the Council Directive 2013/59/Euratom requirements for medical radiological equipment, with respe to controlling, recording and reporting of patients' radiation exposures.
- Developing best-practice guidance on the implementation of the above requirements.
- Discussing the results of the work with Member States, with the view of stimulating further national and EU-level efforts in this area.

5. HADEA/2022/OP/0003 'EU-REST Analysis on workforce availability, education an training needs for the quality and safety of medical applications involving ionising radiation in the EU'

The EU-REST study is part of the **SAMIRA Action Plan** and is being carried out on behalf of the European Commission. This study aims to provide an analysis of workforce availabili education, and training needs to ensure quality and safety aspects of medical applications involving ionising radiation in the EU.

- To provide an analysis on workforce availability, education and training needs to ensure quality and safety aspects of medical applications involving ionising radiation in the E
- To develop staffing and education/training guidelines for key professional groups involved in ensuring radiation safety and quality of medical radiation applications in the EU Member States.

EU-REST project kicked off in the beginning of September 2022.

WEBSITE

6. ENER/D3/2022-402 (ENER/LUX/2022/OP/0008) 'MARLIN -Safety in Medicine by Incident Learning in Ionising Radiation Applications in Europe'

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnosti radiology.

The MARLIN project is a EC funded initiative awarded by contract to a joint EFOMP/ESTRO consortium. The purpose is to

"Support the implementation of Council Directive 2013/59/Euratom by providing a comprehensive description of the current status of incident reporting and develop consensus guidelines on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine, and interventional and diagnostic radiology in Europe"

EFOMP “Angiographic and fluoroscopic systems - QC protocol”.

The WG will operate under Scientific Committee from Jun 2019 to Jun 2021.
The rationale of the WG: There is lack of an harmonized procedure to test angiographic and fluorosopic equipment. Some of the tests proposed still used are out-of-date and meaningless. Manufacturers are organizing a joint effort to produce an IEC standard to test the equipment. It is envisioned that this protocol could prevent the proliferation of other testing protocols with diverse methods of measurement and limiting values. New strategies to evaluate clinical image quality will be investigated and eventually included in the protocol.

Composition

The guidelines are under final production phase by the members of the WG.

EFOMP "Role of Medical Physics Expert in clinical trials"

The WG will operate under Scientific Committee from September 2020 to September 2023.

The rationale of the WG: To develop a consensus guidance document for the work MPEs do in clinical trials across Europe.

Composition

EFOMP Working Group on “Dosimetry in Nuclear Medicine Therapy Molecular Therapy” Policy Statement 19

The WG will operate under Science Committee from August 2022 to September 2023.

The rationale of the WG: The growing development of Molecular Radiotherapy raises the question of the role and involvement of the Medical Physics Expert in clinical therapeutic nuclear medicine dosimetry. The role and competences of medical physicists and medical physics experts under 2013/59/EURATOM (BSS) was addressed in EFOMP policy statement 16. Yet the specificity of Molecular Radiotherapy calls for a more detailed description of how EFOMP understands and wishes to promote the implementation of the BSS.

Composition

THE END!