EFOMP and European projects on medical radiation protection

Dr Virginia Tsapaki
EFOMP Communication and Publications Past Chair
virginia@otenet.gr

Current members of EFOMP

Austria  Belgium  Bulgaria  Croatia  Cyprus  Czech Republic  Denmark  Estonia  Ireland  Finland  France  FYRO Macedonia  Germany  Greece  Hungary  Italy  Latvia  Malta  Moldova  Netherlands  Norway  Poland  Portugal  Romania  Russia  Serbia and Montenegro  Slovakia  Slovenia  Spain  Sweden  Switzerland  Turkey  Ukraine  United Kingdom

Missing some European Union Countries

➢ Luxembourg – currently has only 8 Medical Physicists

EFOMP is the vehicle for harmonising Medical Physics in the European Union Member States.
European Union Matters Committee

The European Union Matters Committee is for the representation of the interest of the Federation to the various bodies of the European Union.

Projects Committee

The Projects Committee is responsible for participating in the implementation of projects and supporting the participation of Medical Physics institutions for improving research in Medical Physics and the professional status of Medical Physicists in Europe and Internationally.

The results of the work of these Committees can be found on the EFOMP website.

www.efomp.org
EFOMP PUBLICATIONS

The official journal of EFOMP:
European Journal of Medical Physics (Physica Medica)

European Conference of Medical Physics
11-13 September 2014
Athens, Greece
www.efomp-2014.gr
ECMP 2014
Scientific program summary

- 66 invited speakers
- Scientific symposium of EFOMP with:
  1) AAPM
  2) MEFOMP (Middle East)
  3) ICRP
  4) IAEA
  5) European Commission

http://ec.europa.eu

http://ec.europa.eu/programmes/horizon2020/
EFOMP involvement in various projects

<table>
<thead>
<tr>
<th>Either in the final stage or finished:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EMAN</td>
</tr>
<tr>
<td>• MEDRAPET</td>
</tr>
<tr>
<td>• MPE</td>
</tr>
<tr>
<td>• DOSEDATAMED</td>
</tr>
<tr>
<td>• ACCIRAD</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Just starting or ongoing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• EUTEMPE-RX</td>
</tr>
<tr>
<td>• PIDRL</td>
</tr>
<tr>
<td>• ENETRAP</td>
</tr>
</tbody>
</table>

Guidelines on Medical Physics Expert  
TENDER NO. TREN/H4/167-2009  

Contract Objective:  
The objective of this contract was to provide for improved implementation of the Medical Exposures Directive (MED) provisions related to the Medical Physics Expert (MPE) and to facilitate the harmonization of the MPE among Member States aiming at their cross-border mobility. In order to achieve this objective the contractor shall carry out three major tasks:

- Conduct an EU-wide study on the MPE
- Organize a European Workshop on MPE
- Develop EU Guidance on MPE
Duration of Contract

The contract was signed on the 30th of December 2009 and its duration is 24 months. The project is now finished.

- Conduct an EU-wide study on the MPE
  - Status of MPE
  - Education and training arrangements
  - Recognition arrangements, including mutual recognition between MS
  - Responsibilities of MPE, e.g. in relation to patient, staff and public radiation protection
  - Needed number of MPE, depending on medical practice
  - Inventory of MPE

http://www.eman-network.eu/

European ALARA Network

EMAN partners:

- Strålsäkerhetsmyndigheten (Swedish Radiation Safety Authority, SSM, Sweden), Coordinator
- European Federation of Medical Physicist (EFOMP)
- European Society of Radiology (ESR)
- European Federation of Radiographer Societies (EFRS)
- European Radiation Dosimetry Group (EURADOS)
- Bundesamt für Strahlenschutz (Federal Office of Radiation Protection, BfS, Germany)
- Centre d’étude sur l’Evaluation de la Protection dans le domaine Nucléaire (Nuclear Protection Evaluation Center, CEPN, France)
MEDRAPET PROJECT

Project ENER/D4/212-2010

- Study on the Implementation of the Medical Exposure Directive's Requirements on
- Radiation Protection Training of Medical Professionals in the European Union

The MEDRAPET Guidance document was published by the European Commission (Radiation Protection Series, No 175) in February 2014

Partners

- ESR coordinator
- EFOMP
- EFRS
- ESTRO
- EANM
- CIRSE

www.medrapet.eu

www.eutempe-rx.eu

- Call identifier: FP7-FISSION-2013 (EURATOM)
- Activity code: Euratom Fission Training Schemes (EFTS) in 'Nuclear Fission, Safety and Radiation Protection'
- Project/Grant agreement no: 605298
- EU contribution: €1,658,000
Objectives

(1) to create a network of excellent teaching centers in diagnostic and interventional RX to prepare courses at a sufficiently high level to bring the MP -----> MPE

(2) to set up a multicampus Educational and Training platform (for course material, on-line teaching activities, ...)

(3) to get the course either accredited or serve as an example in as many as possible Member States (sustainability of the network)

Learners

- The MP in radiology and interventional radiology (in hospitals)
- The MP or scientist in medical device industry
- The MP in regulatory authorities
- (PhD students)

Partners

EFOMP & its professional & educational matters

Teaching hospitals

Universities
- Med. physics
- Radiobiology
- Physics

Screening organisations (Industry) (Authorities)

Via the Scientific Advisory Board, even more of Europe is covered
### Modules

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Developments of the profession and the challenges of the MPE: Legal aspects, professional matters, communication and risk assessment, incidents and accidents, today and tomorrow. Raising the public profile of the profession. Basics of teaching RX users, including the RPE.</td>
<td>Dr. C. Caruana &amp; Prof. E. Vano</td>
</tr>
<tr>
<td>2</td>
<td>Radiation biology for MPEs</td>
<td>Prof. A. Ottolenghi</td>
</tr>
<tr>
<td>3</td>
<td>Monte Carlo simulation of the complete X-ray imaging chain</td>
<td>Dr. J. Sempau</td>
</tr>
<tr>
<td>4</td>
<td>Fundamental physics of X-rays: energy, absorption and their phase</td>
<td>Prof. M. Gambaccini</td>
</tr>
<tr>
<td>5</td>
<td>Anthropomorphic phantoms</td>
<td>Dr. K. Bliznakova</td>
</tr>
<tr>
<td>6</td>
<td>From routine QA to advanced QA and performance testing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Advanced measurements of the performance of X-ray imaging systems</td>
<td>Prof. K. Young &amp; A. McKee</td>
</tr>
<tr>
<td>8</td>
<td>CT imaging and dose-optimized with objective means</td>
<td>Prof. F. Verdun</td>
</tr>
<tr>
<td>9</td>
<td>Achieving quality in the medical physics aspect of breast cancer screening</td>
<td>R. van Engen, W. Vliegen</td>
</tr>
<tr>
<td>10</td>
<td>High-dose X-ray procedures in Interventional radiology and cardiology</td>
<td>Dr. R. Padovani &amp; Prof. E. Vano</td>
</tr>
<tr>
<td>11</td>
<td>Dosimetry, from conceptus to the adolescent</td>
<td>Prof. J. Damalakis</td>
</tr>
<tr>
<td>12</td>
<td>Personnel dosimetry, including techniques to communicate practical results to the users (RPE)</td>
<td>Dr. M. Borowski, prof. Fiedrich</td>
</tr>
</tbody>
</table>
PiDRL Project

The project is intended to provide European DRLs for children and to promote their use so as to advance optimisation of radiation protection of paediatric patients, with a focus on CT, interventional procedures using fluoroscopy and digital radiographic imaging.

This 27-month project is aiming at:
- Agreeing on a methodology for establishing and using DRLs for paediatric imaging
- Updating and extending the European DRLs to cover more procedures and a wider patient age/weight range based on current knowledge.

PiDRL Workshop

October 15-17, 2015
Lisbon School of Health Technology, Lisbon/Portugal

FREE registration

The aims of the PiDRL Workshop are to:
- present and discuss the project’s results,
- submit the draft European Guidelines for comments and critical review by a larger audience and
- identify the needs for further action on DRLs and optimisation of radiation protection of paediatric patients.

The workshop is aimed at key stakeholders in paediatric imaging. In particular, the workshop will bring together radiologists, radiographers and medical physicists by giving them a forum to participate actively in discussions.

Abstract submission will open in early 2015.

Contact and Pre-Registration: eu-affairs@myesr.org

FUTURE PLANS FOR PROJECTS

- Eutempe –RT
- Eutempe-NM
- On going discussions within EFOMP board in collaboration with the Projects Committee
Thank you for your attention

We are looking forward to seeing you in next ECMP in Greece