EFOMP activities and priorities that have been influenced by or are in line with the ‘Bonn Call for Action’

Prof. John Damilakis
EFOMP President

‘Applying physics to healthcare for the benefit of patients, staff and public’
Strengthen radiation safety culture in health care

- Establish patient safety as a strategic priority in medical uses of ionizing radiation, and recognize leadership as a critical element of strengthening radiation safety culture;
- Foster closer co-operation between radiation regulatory authorities, health authorities and professional societies;
- Foster closer co-operation on radiation protection between different disciplines of medical radiation applications as well as between different areas of radiation protection overall, including professional societies and patient associations;
- Learn about best practices for instilling a safety culture from other areas.

- Work towards recognition of medical physics as an independent profession in health care, with radiation protection responsibilities;
  - Work towards recognition of medical physics as an independent profession in health care, with radiation protection responsibilities;
  - Enhance information exchange among peers on radiation protection and safety-related issues, utilizing advances in information technology.
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

EFOMP Policy Statement

The European Federation of Organisations for Medical Physics Policy Statement No. 6.1: Recommended Guidelines on National Registration Schemes for Medical Physicists
Strengthen radiation protection education and training of health professionals

- Prioritize radiation protection education and training for health professionals globally, targeting professionals using radiation in all medical and dental areas;

- Further develop the use of newer platforms such as specific training applications on the Internet for reaching larger groups for training purposes;

- Integrate radiation protection into the curricula of medical and dental schools, ensuring the establishment of a core competency in these areas;

- Strengthen collaboration in relation to education and training among education providers in health care settings with limited infrastructure as well as among these providers and international organizations and professional societies;

- Pay particular attention to the training of health professionals in situations of implementing new technology.
ESMPE European School for Medical Physics Experts

Computed Tomography. Technology, Dosimetry, Optimization.

January 25 – January 27, 2018, Prague, Czech Republic

European Congress of Medical Physics
23 – 25 August 2018
Copenhagen, Denmark

ESMPE European School for Medical Physics Experts
Fundamentals of Nuclear Medicine Dosimetry
August 22, 2018
Copenhagen, Denmark

ESMPE European School for Medical Physics Experts
IMRT&VMAT planning in practice
August 22, 2018
Copenhagen, Denmark
Enhance the implementation of the principle of optimization of protection and safety

- Ensure establishment, use of, and regular update of diagnostic reference levels for radiological procedures, including interventional procedures, in particular for children;

- Strengthen the establishment of quality assurance programmes for medical exposures, as part of the application of comprehensive quality management systems;

  - harmonize the dose data formats provided by imaging equipment, and increase utilization of electronic health records.
Strengthen manufacturers’ role in contributing to the overall safety regime

- Ensure improved safety of medical devices by enhancing the radiation protection features in the design of both physical equipment and software and to make these available as default features rather than optional extra features;

- Support development of technical solutions for reduction of radiation exposure of patients, while maintaining clinical outcome, as well as of health workers;

Strengthen cooperation and communication between manufacturers and other stakeholders, such as health professionals and professional societies;

- Address the special needs of health care settings with limited infrastructure, such as sustainability and performance of equipment, whether new or refurbished;

- Strengthen cooperation and communication between manufacturers and other stakeholders, such as health professionals and professional societies;

- Support usage of platforms for interaction between manufacturers and health and radiation regulatory authorities and their representative organizations.
Relationship with other societies

We have signed Memoranda of Understanding:

EANM
ESTRO
ESMRMB
MELODI (2014)
EFRS (2015)
ESR (2015)
AAPM (2015)
COCIR (2017)

We are in contact with other organizations to sign MoUs

(MEFOMP)
Shape and promote a strategic research agenda for radiation protection in medicine

- Explore the re-balancing of radiation research budgets in recognition of the fact that an overwhelming percentage of human exposure to man-made sources is medical;
- Strengthen investigations in low-dose health effects and radiological risks from external and internal exposures, especially in children and pregnant women, with an aim to reduce uncertainties in risk estimates at low doses;
- Study the occurrence of and mechanisms for individual differences in radiosensitivity and hyper-sensitivity to ionizing radiation, and their potential impact on the radiation protection system and practices;
- Explore the possibilities of identifying biological markers specific to ionizing radiation;
- Advance research in specialized areas of radiation effects, such as characterization of deterministic health effects, cardiovascular effects, and post-accident treatment of overexposed individuals;
- Promote research to improve methods for organ dose assessment, including patient dosimetry when using unsealed radioactive sources, as well as external beam small-field dosimetry.
Common strategic research agenda for radiation protection in medicine

European Association of Nuclear Medicine (EANM)\(^1\) • European Federation of Organizations for Medical Physics (EFOMP)\(^2\) • European Federation of Radiographer Societies (EFRS)\(^3\) • European Society of Radiology (ESR)\(^4\) • European Society for Radiotherapy and Oncology (ESTRO)\(^5\)
Increase availability of improved global information on medical exposures and occupational exposures in medicine

- Improve collection of dose data and trends on medical exposures globally, and especially in low- and middle-income countries, by fostering international co-operation;

- Improve data collection on occupational exposures in medicine globally, also focussing on corresponding radiation protection measures taken in practice;

- Make the data available as a tool for quality management and for trend analysis, decision making and resource allocation.
EFOMP involvement in EU projects

PiDRL
EUTEMPE-RX
ENETRAP III
BSS Transposition
ENEN+
MEDIRAD
Strengthen the implementation of safety requirements globally

- Develop practical guidance to provide for the implementation of the International Basic Safety Standards in health care globally;

- Further the establishment of sufficient legislative and administrative framework for the protection of patients, workers and the public at national level, including enforcing requirements for radiation protection education and training of health professionals, and performing on-site inspections to identify deficits in the application of the requirements of this framework.
This project was awarded to a consortium headed by the EFOMP. Other participating organizations were the ESR and the EFRS.
Improve prevention of medical radiation incidents and accidents

- Implement and support voluntary educational safety reporting systems for the purpose of learning from the return of experience of safety related events in medical uses of radiation;

- Harmonize taxonomy in relation to medical radiation incidents and accidents, as well as related communication tools such as severity scales, and consider harmonization with safety taxonomy in other medical areas;

- Work towards inclusion of all modalities of medical usage of ionizing radiation in voluntary safety reporting, with an emphasis on brachytherapy, interventional radiology, and therapeutic nuclear medicine in addition to external beam radiotherapy;

- Implement prospective risk analysis methods to enhance safety in clinical practice;

- Ensure prioritization of independent verification of safety at critical steps, as an essential component of safety measures in medical uses of radiation.
EFOMP Workshop: Radiation incidents and accidents in medical imaging: can we prevent them?

ECR 2017

Radiotherapy and Accidents in Interventional Suites
Chairman's Introduction:
J. Daniellou, Toulouse/FR
A-414 09:30

Learning Objectives:
1. To discuss the lessons learnt from these incidents and accidents.
2. To discuss the lessons learnt from these incidents and accidents.
3. To discuss the lessons learnt from these incidents and accidents.

A-415 09:35
Accidental exposure during pregnancy:
J. Daniellou, Toulouse/FR
A-416 09:35

Learning Objectives:
1. To provide information about the frequency of accidental exposure of pregnant patients in imaging departments.
2. To learn how to manage pregnant patients in case of accidental exposure to x-rays.
3. To provide information about the frequency of accidental exposure of pregnant patients in imaging departments.
4. To learn how to manage pregnant patients in case of accidental exposure to x-rays.

A-417 09:35

Learning Objectives:
1. To provide an overview of radiation incidents and accidents in medical imaging.
2. To discuss the lessons learnt from these incidents and accidents.
3. To discuss the lessons learnt from these incidents and accidents.

A-446 10:30
Chairman's Introduction:
M. Brando, Novara/IT
A-445 10:30

Learning Objectives:
1. To provide an overview of radiation incidents and accidents in medical imaging.
2. To discuss the lessons learnt from these incidents and accidents.
3. To discuss the lessons learnt from these incidents and accidents.

A-447 11:30
Incidents and accidents in MRI:
D.J. Lurie, Adelaide/AU
A-448 11:30

Learning Objectives:
1. To provide an overview of radiation incidents and accidents in nuclear medicine.
2. To discuss the lessons learnt from these incidents and accidents.
3. To discuss the lessons learnt from these incidents and accidents.

A-449 12:30
Management of Incidents and accidents in Imaging departments: the role and responsibilities of medical physicists
W. Toppal, Athens/Greece
A-448 11:30

Learning Objectives:
1. To provide an overview of radiation incidents and accidents in imaging departments.
2. To discuss the roles and responsibilities of medical physicists associated with the management of radiation incidents and accidents.
Thank You!