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ET Committee Report for Council: Sept 2010 to Sept 2011

Achievements

A1.	'Guidelines on the MPE in Europe': Qualification and Curriculum Development Frameworks. The ET Committee considers this document as a milestone in Medical Physics education in Europe. It includes a mission statement and definitions of key tasks for Medical Physics Services followed by an inventory of circa 900 learning outcomes. It is the first time that our profession has been described in such detail. The document has been structured according to the recommendations of the European Qualifications Framework and the European Higher Education Area. The July2011 version of the document can be found at: http://portal.ucm.es/c/document_library/get_file?uuid=4c201e49-fe30-4f4b-ba0f-5bd13958d36c&groupId=35627
A2.	Curricula for Medical Physicists in Radiation Oncology, Diagnostic Radiology and Nuclear Medicine have been developed in conjunction with ESTRO, ESR, EANM. Again these curricula are milestones for Medical Physics education in Europe and the ET Committee would like to thank the Chairpersons and Members of the three working groups.
A3.	ET SIG 'Research in the Education and Training of Medical Physicists' has been set up. A first research project targeting Assessment in Medical Physics education is planned.
A4.	ET SIG 'Biomedical physics education for the healthcare professions': The third article of the SIG entitled 'A strategic development model for the role of the biomedical physicist in the education of healthcare professionals in Europe' has been published in the European J of Medical Physics.
A5.	The ET sections of the EFOMP website have been developed further with a specific section for 'Education and Training' and a procedure for students in search of traineeships to post their CV on the site.
A6.	Recommendations have been made to the Officers' Board such that the two existing and any new SIGs developed under the auspices of the ET committee would have a status/structure equivalent to the Scientific SIGs.
A7.	Accreditation of CPD activities: 6 conferences, 4 courses, 2 workshops have been accredited (up to 31July 2011)
A8.	EFOMP Congress and EFOMP (ESMP) bursary awards for 2011 have been processed: EFOMP Bursary Awards (ESMP) 2011: Leila Nichol (UK), Vania Marisa Santos Batista (PT) EFOMP Congress Award 2011: Several awards have been awarded in conjunction with the local organizing committee of EMPEC2011
A9.	European School of Medical Physics: 6 one week courses in medical imaging (2), medical computing, radiotherapy, brachytherapy, radiation protection were held. For details please go to: http://lemoigne.web.cern.ch/lemoigne/esiweb/ESMPnn14.htm

Ongoing

O1.	Tuning of the Masters in Medical Physics in Europe: initial contact with EC Tuning coordinator has been established; curriculum document will be developed by ET Committee and SIG 'Research in the Education and Training of Medical Physicists'. The project will be make use of the Qualification and Curriculum development document of the 'Guidelines on the MPE in Europe' project
O2.	Commissioning of ET articles for EJMP on educational topics. A position paper (attached below) has been prepared and is the subject of ongoing discussions.

O3.	ENMPS: A recommendation has been made to the Officers to appoint a Director for the ENMPS to help develop a vision/action plan and then to execute the plan. The ENMPS vision must provide CPD opportunities for medical physicists to develop themselves into MPEs as stipulated in the 'Guidelines on the MPE in Europe' project.

Future Plans

F1.	A second European School of Medical Physics has been proposed.
F2.	A portal for Medical Physics Education needs to be developed.

Report Prepared by: Carmel J Caruana ***31 July 2011***

Position Paper

The role of the EFOMP Board in Commissioning Articles on Education and Training in the European Journal of Medical Physics (EJMP)

Carmel J. Caruana, Chair, ET Committee and SIG

The roles of the official journal of a pan-European professional organization such as EFOMP are many; these include among others the publication of scientific/educational/professional-development research articles, review articles, position papers, policy documents, and clinical guidelines. Although the EJMP is now well-established in such areas as the publication of scientific research and review articles, this is not yet the case of articles in Education and Training. This is an issue which needs to be addressed with urgency if Education and Training in medical physics are to develop as in the case of the other healthcare professions.

Owing to the 'publish or perish' mindset prevalent at universities and academic health centres it has long been recognized that although such institutions do emphasize the importance of educational research, in practice very little gets done. Most professions have long ago recognized that the only way of resolving this issue is to make research in Education and Training an accepted mainstream area of research at par with other areas of research and to commission educational articles to seed the process. The bigger more established healthcare professions publish on regular basis journals dedicated solely to Education and Training research (at least 4 in the case of medicine, three in the case of nursing, two in the case of dentistry). In the case of the smaller professions (such as radiography, physiotherapy) for economic reasons articles in education are included in the main professional journals.

In the case of the medical physics profession this phase of development of the profession has not yet happened. The reasons are many including the relatively young nature and size of the profession and the low number of medical physics Masters programmes on offer. However, the main factor hampering the development of educational research is an attitude among some medical physicists that educational research is not 'real' research. Unfortunately this attitude is also found among some senior leaders of the profession. The end results of all this are that (a) medical physics education lags behind that of the other healthcare professions (b) the number of educational research articles is miniscule when compared to that for the healthcare professions (c) when faced with EC projects such as the 'Guidelines on the Medical Physics Expert' and 'Medical Radiation Protection Education & Training (MEDRAPET)' we find that the research base is practically non-existent.

There are those who put forward the argument that a pan-European journal that is primarily scientific in nature such as EJMP should not pro-actively encourage such articles. This approach has been rejected by other professions as high level education and training is required to produce future cohorts of good scientists. As an example, Appendix 1 lists articles in education in the European Journal of Radiology over the last two years.

Yet, the potential for good educational research does exist and if medical physicists are shown that their educational research would be appreciated in real terms by the European medical physics community (by which we mean published in EJMP) then more researchers would take it up. The success of S. Tabakov et al's EMERALD project at the European level is a good example. Such research if published in EJMP would demonstrate our commitment to high quality education.

The Education and Training Committee is therefore proposing that:

1. The EFOMP Board ensures that the scope of Education and Training articles in EJMP be expanded as follows:
   Education and training in Medical Physics
   - Curriculum development
   - Use of educational technologies, e-learning and simulation
   - Education of medical and healthcare professions

2. The EFOMP Board takes a pro-active stance in the seeding of research in Education and Training through the direct commissioning of articles.

3. At first instance the EFOMP Board commissions the articles in Appendix 2 of this position paper. Leaders for the research groups who would be authoring the articles have already been identified.

Appendix 1: Educational articles published in the European Journal of Radiology over the last two years (8 articles)

E-learning and education in radiology
In Press, Corrected Proof, Available online 20 January 2011
Antonio Pinto, Luca Brunese, Fabio Pinto, Ciro Acampora, Luigia Romano

Learning from diagnostic errors: A good way to improve education in radiology
In Press, Corrected Proof, Available online 20 January 2011
Antonio Pinto, Ciro Acampora, Fabio Pinto, Elena Kourdioukova, Luigia Romano, Koenraad Verstraete

Analysis of radiology education in undergraduate medical doctors training in Europe
In Press, Corrected Proof, Available online 16 September 2010
Elena V. Kourdioukova, Martin Valcke, Anselme Derese, Koenraad L. Verstraete

Undergraduate radiology education in the era of dynamism in medical curriculum: An educational perspective
In Press, Corrected Proof, Available online 23 September 2010
Thomas N.B. Pascual, Rethy Chhem, Shih-Chang Wang, Sasa Vujnovic

Radiological clerkships as a critical curriculum component in radiology education
In Press, Corrected Proof, Available online 16 September 2010
Elena V. Kourdioukova, Koenraad L. Verstraete, Martin Valcke

The Perceived long-term impact of the radiological curriculum innovation in the medical doctors training at Ghent University
In Press, Corrected Proof, Available online 14 July 2010
Elena V. Kourdioukova, Martin Valcke, Koenraad L. Verstraete

The quality and impact of computer supported collaborative learning (CSCL) in radiology case-based learning
Available online 22 September 2010
Elena V. Kourdioukova, Koenraad L. Verstraete, Martin Valcke

Blending online techniques with traditional face to face teaching methods to deliver final year undergraduate radiology learning content
Available online 2 September 2009
David Howlett, Tim Vincent, Gillian Watson, Emma Owens, Richard Webb, Nicola Gainsborough, Jil Fairclough, Nick Taylor, Ken Miles, Jon Cohen, Richard Vincent

Appendix 2: Articles Suggested by the E&T Committee to be Commissioned by the EFOMP Board and Published in EJMP

1. Assessment of Learning Outcomes in Medical Physics Education and Training
   (crucial for the 'Guidelines on the MPE' project).
   Carmel J. Caruana
   Biomedical Physics, Faculty of Health Sciences, University of Malta
   carmel.j.caruana@um.edu.mt
   Slavik Tabakov, Kings College London
   slavik.tabakov@emerald2.co.uk

2. The Medical Physicist in Neurology: clinical role and curriculum.
   Hannu Eskola
   Department of Biomedical Engineering, Tampere University of Technology, P.O. Box 692, FIN-33101 Tampere, Finland
   hannu.eskola@tut.fi

3. The Medical Physicist in Ophtalmology: clinical role and curriculum.
   A(Mani). Manivannan,
   Bio-Medical Physics, Foresterhill,
   NHS Grampian, Aberdeen AB25 2ZD,
   Scotland, U.K.
   a.mani@abdn.ac.uk

4. The Medical Physicist in Gastroenterology: clinical role and curriculum.
   Barry McMahon
   Senior Clinical Lecturer Medical Physics & Bioengineering
   Department of Clinical Medicine
   Trinity College Dublin
   barry.mcmahon@tcd.ie

5. A survey of Medical Physics Masters programmes in Europe
   Conor Heeney
   Mid-Western Radiation Oncology Centre
   Mid-Western Regional Hospital
   Dooradoyle
   Limerick
   cheeney@materprivate.ie

6. Introducing nanomedicine in the medical physics curriculum: which way forward?
   Ricardas Rotomskis
   Biophotonics Group, Laser Research Center,
   Physics Faculty, Vilnius University
   Head of Biomedical Physics Laboratory,
   Institute of Oncology, Vilnius University
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