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European DRL project in Paediatric Radiology

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The European Commission has recently approved a project on the establishment of European diagnostic reference levels (DRLs) for paediatric patients. The project has been awarded to a consortium headed by European Society of Radiology (ESR) and including the following organisations as members:

- European Society of Paediatric Radiology (ESPR),
- European Federation of Radiographer Societies (EFRS)
- European Federation of Organisations for Medical Physics (EFOMP)
- Finnish Radiation and Nuclear Safety Authority (STUK) – Subcontractors:
 - Helsinki University Hospital (HUS)
 - Public Research Centre Henri Tudor (CRP-HT)

Project Objectives

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

The specific objectives will be to:

- Agree on a methodology for establishing and using DRLs for paediatric imaging
- Update and extend the European DRLs to cover more procedures and a wider patient age/weight range based on current knowledge.

The work is divided into four work packages

WP0 Project Management

(Chaired by the ESR, represented by Madan Rehani with Peter Vock and Monika Hierath)

WP1 Development of the methodology and the European Guidelines

(Chaired by STUK, represented by Hannu Järvinen, co-chaired by EFOMP, represented by Hilde Bosmans)

WP2 Update and expansion of European DRLs in paediatric imaging

(Chaired by the ESR, represented by Madan Rehani, co-chaired by the EFRS, represented by Graciano Paulo)

WP3 Organisation of a European workshop on DRLs in paediatric imaging

(Chaired by the ESR, represented by Madan Rehani with Monika Hierath, co-chaired by the ESPR, represented by Catherine Owens)

The ESPR is a partner in WP 1, represented by Catherine Owens and Erich Sorantin, and in WP 2, represented by Claudio Granata and Hubert Ducou Le Pointe.

Tasks under WP 1 include:

Task 1: Define the concepts and methodology to establish paediatric DRLs (Responsible experts: Mika Kortnesniemi, Jenia Vassileva, Andreas Jahnen, Graciano Paulo, Hannu Järvinen, Erich Sorantin)

Task 2: Assess the most important paediatric examinations where DRLs should be set (Responsible experts: Raija Seuri, Catherine Owens and Peter Vock)

Task 3: Prepare reviews and recommendations on the use of the paediatric DRLs (Responsible experts: Hilde Bosmans, Virginia Tsapaki, Dean Pekarovic, Catherine Owens, Erich Sorantin)

Task 4: Draft the European Guidelines on paediatric DRLs (Responsible experts: Hannu Järvinen, Raija Seuri, Stephen Evans, Dean Pekarovic, Catherine Owens, Erich Sorantin)

Tasks under WP 2 include:

Task 1: Literature review of DRLs (Responsible experts: Jenia Vassileva, Madan Rehani, Shane Foley, Claudio Granata)

Task 2: Identify situations where crucial data is missing, but there is a possibility to utilise the network of this consortium to collect data from their respective hospitals to fill the gap (Responsible experts: Stephen Evans, John Damilakis, Madan Rehani, Hilde Bosmans, Graciano Paulo, EFRS, Raija Seuri).

Task 3: Analyse data and propose European DRLs. It is our understanding of the specifications of the invitation to tender that the DRLs are to be established based on current literature rather than surveys of doses. This will be confirmed with the EC at the kick-off meeting. (Responsible experts: Jenia Vassileva, Madan Rehani, Hilde Bosmans, Raija Seuri, Graciano Paulo, Claudio Granata, Hubert Ducou Le Pointe)

Task 4: DRLs in fluoroscopy-guided procedures in children (Responsible experts: Reinhard Loose, Peter Vock, Hilde Bosmans, Shane Foley, Claudio Granata, Hubert Ducou Le Pointe)

The total duration of the project is 27 months. During the first year, a list of preliminary DRLs will be compiled, which will be finalised in the second year. The initial draft of the guidelines document will also be prepared by the end of the first year and an advanced version by Q3 of 2015. The workshop is planned for October 2015 and the final report will be prepared by the end of 2015.

