

**Heads of European Radiological Protection Competent Authorities,
30th HERCA Board meeting
14-15 December 2022**

Report to the Board of HERCA

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Date: 8 November 2022
Title: HERCA-WG Medical Applications Progress Report

Summary: In this report, the HERCA workgroup on medical applications presents a summary of its activities since the 28th Board of Heads meeting in December 2021, and the proposal for a new taskforce non-medical exposure submitted to the BoH at its 30th meeting in December 2022.

Document approval

Review	Author	Date
0	WP coordinators / WG MA chair and co- chair	November 2022

Distribution

Intern: HERCA Board of Heads, HERCA secretariat

1. HERCA WGMA ongoing activities

Since the BoH meeting in May 2022, progress has been made in the following Work Packages (WP):

1.1. Ongoing Work Packages, Task Force and Platform

The WG MA currently has 4 on going Work Packages and one Task Force. The state and progress of the ongoing Work Packages and Task Force is described in the following chapters.

These WPs are:

- a. Inspection: action Radiotherapy
- b. Clinical audit
- c. Nuclear medicine
- d. New Technologies

Besides active WP, WP Inspection and Awareness in medical exposures are assigned structural tasks as agreed on in the mandate of the HERCA WGMA (2022-2025).

The Task Forces are on Proton therapy and Patient Protection and the Platform on Information Sharing.

1.1.1. WP Inspection

WP Coordinator	Eva G. Friberg (Norway) and Collette O'Connor (Ireland)
Chair of action	Philipp Trueb (Switzerland)
WP members	Petr Papirnik (Czech Republic), Sampsa Kajaluoto (Finland), Richard Elek (Hungary), Torsten Cederlund (Sweden), Dejan Zontar (Slovenia), Herbert Michalczak (Germany), Rachael Ward (United Kingdom)

The 3rd HERCA Inspector Workshop will be held in Helsinki in June 2023 and will cover inspections of optimization and radiation safety in radiotherapy. The workshop will be hosted by the Finnish Radiation Safety Authority STUK. It is aimed at experienced radiation protection inspectors from HERCA member states. The scope will mainly focus on inspection activities in external beam radiotherapy with linear accelerator. The workshop will last for 2 1/2 days. On the first day, renowned experts will open the workshop. Afterwards, 9 selected topics will be dealt with in depth in smaller working groups. The workshop is planned for a maximum of 60 participants, so that at least 2 inspectors per member state could attend. The workshop program and workshop leaflet have been finalized, and on-line registration is planned to open in January 2023. It is kindly asked that the BoH encourage and support member states to participate in this workshop.

1.1.2. WP on clinical audit

WP Coordinator	Alexandra Schreiner (Luxembourg)
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WP Members	Maria Kalathaki (Greece), Hanne Waltenburg (Denmark), Ritva Bly (Finland), Eva Friberg (Norway), Carine Galli Marxer (Switzerland), Marleen Vandecapelle (Belgium), Petr Papirnik (Czech Republic)
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The WP clinical audit organised a multi-stakeholder meeting on clinical audit on the 7th of October 2022. This multi-stakeholder meeting was supposed to take place in March 2021 but due to the COVID-19 it was decided to organise it in 2022. An agenda for this meeting was prepared and presented at the WGMA meeting in September 2020 and approved by the BoH in November 2020.

The meeting took place in Luxembourg with 23 participants. Eight participants from the HERCA WGMA, seven participants from the professional societies EANM, ESR, ESTRO and EFOMP as well as the organisations IAEA and EC. The other participants were observers from the Luxembourg Ministry of Health and professional societies. The meeting was a great success with interesting presentations, good discussions and very good conclusions. The minutes of the meeting were prepared and shared with the participants.

The WP coordinator continues to represent HERCA in the ESR audit and standards subcommittee having replaced Steve Ebdon-Jackson in 2020.

1.1.3. WP on Nuclear Medicine

WP-Coordinator	Ritva Bly (Finland)
WP-Members	Nicolas Stritt (Switzerland), Sampsa Kaijaluoto (Finland), Veronika Štědrová (Czech Republic), Herbert Michalczak (Germany), Barbara Godthelp (Netherlands), Karen Fuller (United Kingdom), Torsten Cederlund (Sweden), Marleen Vandecapelle (Belgium), Richard Elek (Hungary), Anja Almén (Sweden)
Observer	Georgi Simeonov (EC)

The Work Package has started the work following the Action Plan that was approved at the Liverpool meeting (May 2019).

The Action Plan consists of four actions:

1. Self-commitment of manufacturers for optimization of nuclear medicine
2. Collection of materials from HERCA countries and societies on new actions in nuclear medicine for information sharing
3. Inspection week on optimization of nuclear medicine
4. Position Paper on Implementation of new issues in BSSD on nuclear medicine

In the first action, the Work Package has sought HERCA cooperation with Nuclear Medicine Europe (previous AIPES, Association of Imaging Producers & Equipment Suppliers) to emphasize the importance of optimization in medical exposures and the need for dosimetry software and training on them to be part of the package of therapy radionuclides. A high level Teams meeting was organized on 20th November 2020. The scope of the meeting was to have a preliminary discussion on possible future co-operation on areas of mutual interest. HERCA was requested to provide more information on radiation safety based on

requirements in the BSS. NM Europe suggested a workshop in the first half of 2021, however the COVID-19 situation has postponed a physical meeting. In October 2022 there was a face-to-face EANM congress in which the relationship was re-established with the Director General of the NM Europe Rudi Verbruggen, and more exchange was carried out by e-mailing consequently. Currently, NM Europe will consult within their working groups possible future contact points.

In the second action, the Work Package has conducted a survey to collect information on radionuclide therapies. The survey has three main goals: 1) To get up-to-date information about radionuclide treatments in Europe, 2) To gather information on release criteria and requirements for hospitalization in treatments involving other radionuclides than I-131 and 3) To gather information on implementation of BSSD Article 56.1 and Article 58 d) i). The data was received from 20 countries. A paper of the results was sent to a scientific journal EJNMMI and a requested revision of the paper was sent in the end of March 2021. The paper was withdrawn because of no response from the journal and the paper was sent to the Journal of Radiological Protection successfully. Currently requested editing is going on before the final approval. Moreover, the collection of information that was mentioned above in the point 2) was carried out based on the survey results. The WGMA considered that a primary aim would be to have HERCA instructions, however that can be further discussed and decided after the WP NM has collected and analyzed the content of existing guidelines. WP NM and IRSN agreed that IRSN will perform the final analysis and synthesis of the collected information in December 2021. The results have been used internally to develop HERCA instructions. Selection of topics and the content of the instructions have been discussed in the WP NM in September 2022.

1.1.4. WP on New Technologies

WP Coordination	Anja Almén (Sweden)
WP members	Aurélié Isambert (France), Erik Mille (Germany), Holly Warriner (UK), Torsten Cederlund (Sweden), Nicolas Pirault (France)

WP New Technologies has been established and members have been recruited during the year. The scope and work plan has been drawn up. A first online meeting is planned for the end of this year to further plan the work.

1.1.5. TF on Proton Therapy

The task group on proton therapy of the WGMA has been put on hold.

The platform on information sharing organises an internal HERCA webinar on November 23^d for inspectors and licensing experts on the Proton therapy paper that has been produced. On 18/11 75 participants had registered.

1.1.6. TF on Patient Protection

TF Coordination	Holly Warriner (UK) and Philipp Trueb (Switzerland)
TF members	Katrien Van Slambrouck, Herbert Michalczak, Petr Papirnic, Dejan Zontar, Nicolas Pirault, Agnella Craig, Torsten Cederlund and Alexandra Schreiner

In its first year of existence, the Task Force Patient Protection has focused on the controversy surrounding the use of patient protection aprons in the various applications of radiology. There is a consensus paper on this from all the scientific societies concerned in

Europe. The Task Force is currently collecting the various recommendations in the member countries. Questions arise for some special vulnerable patient groups like children, pregnant women and anxious patients.

The aim is to prepare a homogenised HERCA recommendation next year.

Possible follow-up through some kind of awareness action was suggested at the Paris meeting of the WG. This will be explored with the strategic WP awareness in medical exposure.

Other future topics of the Task Force have been identified and will be considered in the coming years:

- reporting accidental and unintended exposures,
- cumulative patient doses
- skin doses

1.1.7. Platform on Information Sharing

PL Coordination	PL-coordinator: Katrien Van Slambrouck (Belgium), PL-co-coordinator Aurélie Isambert (France)
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The platform organised several sessions during the last WGMA meeting:

- A session on medical radioactive waste in household waste.
 - ➔ an internal "Information sharing sheet" will be drafted
- A face to face meeting with COCIR
 - ➔ The group has met the new secretary general of COCIR: Annabel Seebohm. COCIR gave an update on their latest working areas. HERCA WGMA and COCIR have identified new possibilities of collaboration in the future (e.g. in the WP on New Technologies) and opportunities for the dissemination of information on previous work (e.g. work on risk analysis in radiotherapy).
- The platform organises an internal HERCA webinar for inspectors and licensing experts on November 23^d on the Proton therapy paper that has been produced. On 18/11 75 participants had registered.

1.2. Other issues

- EU-JUST-CT and ECR Conference

Alexandra Schreiner had attended ECR in July 22 where the information from the WP Awareness on promoting the responsible use of medical imaging that was available in English, French and German, was presented in the Eurosafe Imaging Booth. Alexandra also moderated/chaired a session about EU-JUST-CT at the conference. EC provided an update that audits had been completed for some countries and nearly complete for some others, so analysis of the results has started. Information was given on WP6: Developing guidance on the implementation of justification in healthcare settings.

- Simple Rad: no feedback at the moment
- EURAMED Rocc'n'Roll: the draft of task 2.6 on the evaluation of the regulators tasks and expectations was commented on.
- European observatory group: Sampsa Kajaluoto had attended a meeting of this group about the supply of medical radioisotopes on behalf of his own organisation.

He informed the group that there could be some problems with the supply of Lu-177 if the war in Ukraine lasts a long time. He asked the group if HERCA should have a more formal link with this group. Some members said they already got the information cascaded to them from other routes, but not all members did. It was agreed that he should keep sharing the information whenever there was something of note.

- EU project – TraMeXI: Barbara Godthelp informed the group about a European partnership regarding collaboration with physicists on traceability of medical x-ray imaging dosimetry/metrology, called TraMeXI, which is seeking EU funding. HERCA WGMA provided the initiative with a support letter (with permission of the HERCA chair). We are awaiting if initiative gets funding. If that is the case there will be a collaboration with the WGMA.
- Collaboration with HERCA WG-RISP: WG RISP approached the WGMA regarding medico-legal exposures. WG-RISP is looking at the issue of scanning young asylum seekers (for age estimation) and looking for contraband, and they wish to develop a paper on this in collaboration with WGMA. The WGMA noticed that there may be new technologies involved, but the topic as such is not really new. It was agreed that WGMA should get involved and it was discussed that it might be appropriate to form a new Task force or similar.

Proposal to form a new task force on non-medical imaging exposures (previously medico-legal exposure). Proposed members of the taskforce from WGMA: Barbara Godthelp (chair), Katrien Van Slambrouck, Maria Kalathaki, Eva Friberg, Erik Milne, Georgi Simeonov (observer). The TF would like to continue the work that had been initiated previously and would like to collaborate with the WG-RISP on the topic.

2. Scientific and technical developments in the field of competences of the Working Group

New developments are followed by the workgroup on New Technologies continuously as well as in the task force Patient Protection.

We have reestablished our relationship with COCIR to receive regular updates from COCIR and are looking for collaboration with other platforms (Nuclear Medicine Europe etc.).

3. Next Subgroup meeting

The next WGMA meeting is programmed for the March 16-17th, 2023 in Warsaw, Poland.