

The Role of the CECR (Center for clinical expertise in radiation safety)

To develop and maintain an expertise in radiobiology and radiation protection, for the benefits of the Quebec public Health Network , MIL and MSSS.

In its role the CECR must :

- Analyse issues related to emission of ionising radiations from medical imaging devices;
- Make recommendations to the health care network and to the MSSS on best practices and radiation safety issues;
- Ensure the sustainability of development and maintenance of scientific expertise in radiobiology and radiation protection;
- Ensure sustainability of CECR capacities to support the Québec's public healthcare network in diagnostic imaging.

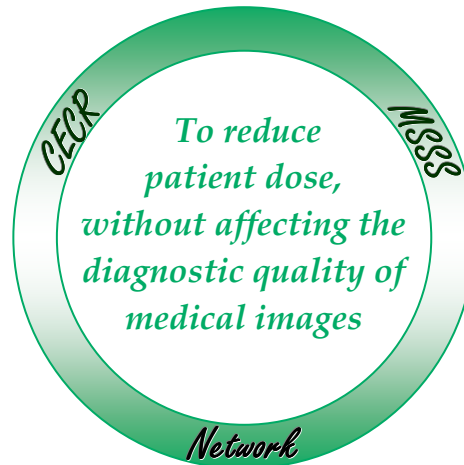
Figures

- ◆ 88 hospitals et 15 MIL will be visited;
- ◆ More than 200 CT scans will be optimized;
- ◆ As of March 31st, 2012, 25 hospitals were visited and 28 CT scans were optimized.

The CECR Director

Renald Lemieux

The Common Goal :



We all know the importance of this goal.
We all have an opportunity to make a difference in the lives of patients.
lets work together!

CENTRE D'EXPERTISE CLINIQUE EN RADIOPROTECTION

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The CECR's Mandate

The Centre d'expertise clinique en radioprotection (CECR) is a group of experts mandated by Québec's Ministry of Health and Social Services, to help in the implantation of its action plan to reduce exposure to ionizing radiations and to provide consultancy services and support to the Health and Social Services facilities who are dealing with complex radiation protection issues.

With the intention of providing quality and highly secure radiology services for patients, the MSSS has designated the CHUS as the CECR. Its mission is to:

- Improve the quality and safety of care provided to patients with ionizing radiations medical technology.
- Promote appropriate and judicious use of these technologies in health facilities and ensuring their optimal functioning.
- Review the content of Health Canada Safety Code 35 in order to progressively adapt it to Québec's environment and workplace.

As part of the progressive implementation phase, the CECR and the MSSS have agreed on a modality by modality approaches. The first imaging modality which the CECR lingers on, is computed tomography (CT), which is the largest patients radiation exposure source, in diagnostic medical imaging.

The Computed Tomography Tour

A provincial tour to health facilities and medical imaging laboratories (MIL) was launched in June 2011 in order to assess CT installations and to initiate a dose optimization process.

For the tour, the CECR has put into place a team of multidisciplinary experts that includes medical imaging technologists, physicists and engineers whose expertise is recognized in the biomedical field. A radiologists associated with the CECR also supports the team.

Where as the largest concentration of CT facilities are in the Montreal, Quebec, and Sherbrooke areas, the tour began in these regions.

The CECR contacts the facility or MIL a few months before the intended visit in order to obtain various preliminary information and to answer to the questions the medical imaging team may have.

During the visit, the expert team performs various CT quality control test, imaging analysis and clinical protocols review.

Lastly, the CECR team along with the establishment's local team or the MIL visited that is made up of a radiologist and a medical imaging technologist, to perform the optimization of the most commonly used clinical protocols for head, chest and abdomen-pelvis. The main purpose is to retain diagnostic image quality while reducing dose to exposed patients.

Benefits from the Tour

First of all, the analysis and optimization work done during the tour will allow the CECR to issue recommendations to establishments and MIL, for a judicious use of medical imaging equipment and to improve the practice in radiation protection. The CECR will also establish a database of optimized protocols, providing uniform practices in radiology and dose reduction to exposed patients.

Secondly, establishments and MIL will be able to continue the dose optimization process initiated in CT during visits. The tools and support from the CECR remaining available at all times.

Furthermore, data will be accumulated in a database to monitor doses, to establish Diagnostic Reference Levels (DRLs) that will be revised periodically.

Lastly, all of these activities have one goal: To reduce dose exposure for the benefit of the patient and the general population.

Quality controls

The CECR will publish shortly a quality control (QC) manual entitled « *Code 35 Québec, module tomographie* ». It will enable all establishments and MIL to establish a standardized quality control program for CT. Other QC manuals will follow for each medical imaging modality.