**Justification, Funding, and Priorities**

**Message from the Editor**

Based on the updated format introduced in the last edition, there are three sections in this newsletter. Under "Quality Practice Guidance and Tools", there are examples of open-access resources. One of these is a recent WHO publication “Communicating Radiation Risks in Paediatric Imaging - Information to Support Health Care Discussions about Benefit and Risk”. Together with other organisations and individual experts, the International Society of Radiology (ISR) contributed to this important project.

The second section "Radiological Quality and Safety Campaigns" offers an update from the various campaigns. The radiology community is encouraged by the achievements of these campaigns, and we thank their leaderships for sharing their experience with us. Good communication and coordination ensure better collaboration of improvement efforts. The ISR is honoured to facilitate communication and collaboration between these campaigns.

The third "System-based Collaborations" section gives examples of system-wide collaborations. An example is a multi-stakeholder collaboration during the recent sixty-ninth session of the World Health Assembly in May. The ISR joined the Union for International Cancer Control (UICC), the World Health Organisation (WHO), eight Ministries of Health and three NGOs in an event entitled "Are we making the right investments for optimal cancer control? A global dialogue.”

These activities illustrate the importance and value of coordinated collaboration. Despite limited resources, the ISR and other like-minded stakeholders contributed to global actions to improve health and patient care over many years. While the reasons for these actions are evident to the converted, advocacy and justification are required for others. Activities intended for wider impact usually need more funds. Unfortunately, funding is becoming tighter and more competitive in recent years. Successful resources mobilisation improves by lateral thinking and sourcing from emerging philanthropic and charitable bodies.

When there is a common goal, coordinated collaboration improves efficiency and impact, and reduces waste and duplication. It is easier to implement specific improvement actions within a radiology facility because fewer stakeholders are involved. A globally developed and locally implemented approach for system-wide initiatives involves many more stakeholders than facility-based actions. Therefore, communication and coordination strongly influence their success and impact.

On the practice of radiology, the priorities for healthcare systems are awareness, access and more appropriate use of radiological procedures. The priorities for radiology facilities are awareness, access and more appropriate use of good practice recommendations and guidance tools. Many of these tools are free and readily accessible. Such system-wide and facility-based actions are complementary. The ISR is committed to working with others on these priorities. Radiological practitioners can contribute to these collaborations by selecting the best option based on their needs and circumstances.

Perhaps one of the approaches to strengthen awareness, access, and more appropriate use of radiology is to have clearly defined priorities, secure sponsorship and enhance these actions by good communication, coordination, and collaboration.

Kindly direct distribution or contribution query to mhierath@isradiology.org or LSLAU@bigpond.net.au

Lawrence Lau, FACR, FAMS, FRANZCR, FRCR
Editor, ISRQSA News
Chair, International Commission on Radiological Quality and Safety
ICRP is Finalising a New Document on “Diagnostic Reference Levels in Medical Imaging”

International Commission on Radiological Protection (ICRP) Committee 3 (Protection in Medicine) has prepared a new document updating its existing guidance and offering new recommendations on diagnostic reference levels (DRLs) in medical imaging to help in optimisation of radiological protection.

The document refines the definition of DRLs, and stresses that DRL quantities are not directly related to radiological risk, so organ doses and effective dose are not appropriate quantities for DRL values. Different clinical tasks may require different DRLs, so it is important to recognise that DRLs alone are not a guarantee of optimisation.

The establishment of DRL values should be based on patient surveys and not on phantoms. The document gives advice for DRL use in multimodality imaging (e.g., PET-CT), considers the relevance of automatic patient dose reporting systems, and suggests review intervals for determination of DRL values of 3-5 years or after relevant changes in technology. It also suggests the use of patient weight bands instead of age bands to set DRL values for paediatrics. The document recommends using the term “DRL” for both interventional procedures and diagnostic imaging.

The draft document was posted on the ICRP web site for public consultation from January to April 2016. Twenty-nine sets of comments were received (see http://www.icrp.org/page.asp?id=256).

The Working Party and Committee 3 are considering all of the comments and are now preparing a final version to be submitted to the ICRP Main Commission. Committee 3 expects to receive approval for publication of the document before the end of 2016.

Prof. Eliseo Vañó, Chairman Committee 3, International Commission on Radiological Protection
The International Society of Radiographers and Radiological Technologists (ISRRT) has developed a Web-based decision tool for radiographers to use in a team approach to Justification as a Response to The Bonn Call for Action. This serves to promote the role of the radiographer/technologist in the justification process and supports the implementation of the BSS.

The imaging team, comprised of the radiologist, technologist/technologist and the medical physicist, should continue to use appropriate criteria and guidelines developed from a strong evidence base to build their protocols for the diagnosis of each specific disease process under the responsibility of the lead radiologist. Each team member has a distinctive role:

- the radiologist provides input to the clinical referral guidelines;
- the radiographer/technologist provides image acquisition protocols of the relevant imaging modality;
- the physicist provides information on how to achieve the best image with the lowest dose of radiation achievable to obtain a highest quality image for the radiologist to read.

The radiological medical practitioner (radiologist, or in some countries, a radiographer/technologist working in accordance with guidelines issued by the radiological medical practitioner) serves as the gate keeper for the imaging department, but depends heavily on each of the members of the imaging department’s health care team to also do their part in protecting a patient from unnecessary radiation exposure.

Requests for imaging should always be protocolled for appropriateness by the technologist/technologist before exposure is made. When following this practice radiographers/technologists will bring their concerns to the attention of a radiologist or (in some countries) to a radiographer/technologist who has been delegated the task of justification and Authorisation according to an agreed protocol.

In this way, important discussions may then take place between the referring medical practitioner and the radiological medical practitioner to resolve the matter by 1) further documenting the original order, 2) modifying the original order to a more appropriate procedure or 3) cancelling the original order until additional study can be made. Furthermore, it is important that these discussions and reasons be documented in the patient’s notes as the examination continues to be performed.

In countries where a radiologist is in every hospital and clinic the concept of referring physician consulting with the radiologist can be incorporated into the justification process.

In countries that do not have a radiologist in every clinic or hospital, but where regulator processes are applied, the Authorisation may be carried out by either the practitioner or a radiographer (medical radiation technologist ref. BSS) working within the guidelines issued by the responsible medical radiation practitioner.

In countries where a radiographer/technologist acts as the practitioner for different radiological procedures, the radiographer/technologist can help with the consultation process using a departmental adopted protocol.

In countries where a radiologist is not present and images are reviewed using Telemedicine, the radiographer/technologist plays an even more vital role in the role of Justification and Authorisation.

The ISRRT web-based decision tool for radiographers/technologists for the justification and Authorisation of imaging procedures using ionising radiation can be found at www.isrrt.org.

Donna Newman, Director of Professional Practice and Stewart Whitley, Treasurer, International Society of Radiographers and Radiological Technologists.
Supplement to ISRQSA News July 2016

ISRQSA NEWS


The Alliance for Radiation Safety in Paediatric Imaging (better known as the Image Gently Alliance) is an assurance organisation whose mission is, “...through advocacy to improve safe and effective imaging care of children worldwide.”

This mission is achieved through an emphasis on the value of imaging as well as the importance of informed performance of medical imaging using ionising radiation in children. The emphasis continues to be on optimising imaging, not simply radiation dose reduction. To this end, the Image Gently Alliance is in harmony with the growing number of international initiatives/campaigns. Most recently, LATINSAFE was introduced at the 46th Sao Paulo Radiological Meeting (JPR http://www.jpr2016.org.br/en) in April 2016. This initiative is well-designed, well-organised, and will be of tremendous value in Latin America.

The following are summary updates for the first half of 2016.

New Alliance steering committee member: Matthew Lungren, M.D., who has subspecialty training both in adult and paediatric interventional radiology, will be the lead for interventional radiology as well as social media. He is currently at Stanford Medical Centre.

Programmatic developments:

- Advancement in social media strategy;
- Improved website; and
- Emphasis on better public presence through renewed efforts with formal patient advocacy groups; this is headed by Susan John, M.D.

Six completed campaigns to date:

- “Think A-Head” Campaign: Campaign directed at the use of medical imaging, particularly CT in the paediatric population with minor head trauma. This includes both justification and optimisation aspects of imaging. The campaign committee has been formed with expertise in neuroradiology, paediatric radiology, paediatric neurosurgery, paediatric trauma surgery, nursing, medical physics, emergency medicine, and includes radiologic technologists. The campaign will roll out in two phases, one in the Fall of 2016 and the second phase in the Spring of 2017.

- “Have a Heart” Campaign: This campaign will address medical imaging using ionising imaging in the paediatric population and is led by cardiologists. Paediatric interventional cardiologist (Duke) Kevin Hill, M.D., M.S. is the chair, with leadership including senior consultant cardiologist (Columbia) Andrew Einstein, M.D., Ph.D., M.S. Anticipated roll out of this campaign will be Spring 2017.

- Mini-campaigns: This concept was introduced by Keith Strauss, M.S., and Vice Chair for the Image Gently Alliance. Smaller campaigns will be focused on a single message. Current campaign developments include updates in nuclear medicine guidelines, and gonadal shielding in children.

- Alliances: The number of alliance organisations continues to grow and is now over 100. Most recently, the Society of Interventional Radiology (SIR http://www.sirweb.org) became a formal Alliance member. Of note, recently the American Board of Internal Medicine Foundation, responsible for the Choosing Wisely campaign (http://www.choosingwisely.org) aimed at improved utilisation of medical care, including diagnostic imaging acknowledged the sentinel role of both Image Gently and Image Wisely in this initiative.

- International presentations:
  - JPR, April 2016: Image Gently: “The Unfolding Story” (as part of plenary session for formal announcement of LATINSAFE).
  - 7th Conjoint Meeting and Exhibition, International Paediatric Radiology, Chicago, May 2016 “Image Gently: Friend or Foe.”
  - EGY Medical Imaging, Cairo, May 2016: “The Image Gently Campaign for Improving Imaging in Children.”

- Regulatory/Guidance Organisation Input:

  - The Imaging Gently Alliance reviewed the proposal by The Joint Commission for a national patient safety guideline on CT imaging in the paediatric population. This accreditation standard was intended to emphasise use of decision support for imaging children with minor head trauma and minimising the performance of multi-phase examinations of multi-phase CT examinations of the brain and chest.

- Nuclear Medicine Updates: Following a recent workshop at the Society of Nuclear Medicine, Doctors Ted Treves and Fred Fahey announced that there will be an additional eight radiopharmaceuticals added to the previous list for guidelines for administration in children. The European dosage charts will be modified to agree with these charts.

Donald P. Frush, MD Chair, Image Gently Alliance

image gently®
Image Wisely® - RSNA Radiation Dose Exhibits

The Image Wisely® campaign is a collaborative effort of the American College of Radiology (ACR), the Radiological Society of North America (RSNA), the American Association of Physicists in Medicine (AAPM), and the American Society of Radiologic Technologists (ASRT).

Image Wisely’s primary goals are raising awareness and providing information and educational material about the use of ionizing radiation in medical imaging. The chief mechanism for broadcasting this information is a dedicated website (www.imagewisely.org), which was launched at the 2010 RSNA Annual Meeting when the Image Wisely campaign officially began.

The Image Wisely website provides resources and information for radiologists, imaging technologists (radiographers), medical physicists, other imaging practitioners, and patients. The four member societies have a standing invitation to contribute to imagewisely.org, and the members of the Image Wisely Executive Committee are always seeking suitable material to share.

Image Wisely has recently added a new feature to its home page, selected RSNA Radiation Dose Exhibits from the previous annual meeting. Each year, RSNA gathers the finest educational content from its members (residents, attending radiologists, Ph.D.s, medical physicists, and technologists) to present as digital posters at the RSNA Scientific Assembly and Annual Meeting. Presented in slideshow format, each digital poster focuses on innovative techniques, new procedures, and key discoveries that are shaping radiology today. In 2015, more than 1,700 electronic exhibits from authors throughout the world were presented at the meeting.

RSNA Education has partnered with Image Wisely to provide open links to a new RSNA Radiation Dose Exhibits feature. Open access to these electronic presentations on the Image Wisely website requires neither registration nor RSNA membership.

The Image Wisely campaign will continue sharing these specially selected exhibits each month. The third exhibit, Third-Generation Dual-Source DECT (3rd Gen-DECT): Advances and Advantages in Clinical Practice (Vrtiska, Vasconcelos, Montoya, et al), posted April 21, presents information on the latest technical advances for third generation, dual source CT and how to use them to reduce dose to the patient. This won RSNA’s cum laude distinction at the 2015 meeting.

Image Wisely invites users to browse not only these new exhibits, but the entire website. We welcome comments about what Image Wisely is doing well and suggestions on how we might better serve your radiation safety and patient quality educational needs.

Wil Creech, Laura Bancroft, M.D., Marjo Millette
Image Wisely®
EuroSafe Imaging Stars – A Five Star Scale to Assess Quality Standards in Radiation Protection

EuroSafe Imaging Stars is EuroSafe Imaging’s latest initiative to promote quality and safety in medical imaging by following an inclusive approach to medical radiation protection encompassing patients’ needs, medical training curricula, public health protocols and relevant industry stakeholders. Launched in February 2016, the Stars initiative has been designed to identify and recognize imaging facilities that embody best practice in radiation protection and that are committed to putting the principles advocated and concepts developed by the European Society of Radiology (ESR) into practice. EuroSafe Imaging Stars gives radiation protection efforts greater visibility while having a positive impact on clinical practice, and enables the European Society of Radiology to collect relevant data for analysing trends in medical imaging and developing future projects.

Imaging departments participating in the EuroSafe Imaging Stars initiative are required to perform a self-assessment on their level of radiation protection. The self-assessment consists of an online application form which has to be completed by the applicant department biannually. The list of criteria is divided into five sections and imaging facilities will be awarded up to five stars depending on how many criteria of a certain level they fulfill. Some of the criteria are mandatory, such as participation in the ‘Is your Imaging EuroSafe?’ as a prerequisite for becoming an EuroSafe Imaging Star. The self-assessment also includes elements like the use of CT protocols and automatic dose recording, dose optimisation, justification, equipment quality, clinical audit, or the use of a clinical decision support for imaging referral guidelines. After successful evaluation, the participating imaging departments are listed on the ‘Wall of Stars’ according to the level attained. This status is re-assessed in biannual self-evaluations.

The recruitment of potential EuroSafe Imaging Stars institutions follows a dual approach consisting of nominations by national radiology societies as well as direct applications by eligible institutions, thus giving an equal chance to leading academic hospitals and smaller clinics. Each national radiology society is invited to suggest one flagship institution in their country, while all other hospitals have the chance to directly apply online to become EuroSafe Imaging Stars, provided that the person responsible for the imaging facility is an ESR member in good standing.

Approximately 20 leading medical institutions have already embraced the project and been awarded Star status, with another 20 applications currently in the process of evaluation.

The EuroSafe Imaging Stars initiative is not just meant to afford participating institutions greater visibility through the ESR’s press activities and recognition by one of the world’s largest medical societies, but to provide imaging departments with an incentive to embrace a holistic approach to quality and safety in radiology and to rally the professionals within a department around a common cause. A self-assessment that involves distinct yet related tasks like assessing the imaging equipment and maintenance needs, evaluating a clinical audit progress and improving patient’s awareness of what radiology does for them is a process that requires imaging departments’ staff to work together as a team.

EuroSafe Imaging aims to promote quality and safety in medical imaging well beyond Europe and to encourage other regions to follow suit. EuroSafe Imaging serves as a role model for radiation protection campaigns on other continents, where initiatives like LATINSAFE (LAC countries), the pan-African AFROSAFE initiative, Canada Safe Imaging and Japan Safe Imaging have recently been established. The ESR embraces a collaborative approach with these campaigns and supports efforts to involve the International Society of Radiology (ISR) as convener and umbrella for all continental/regional campaigns in the future.

EuroSafe Imaging is the European Society of Radiology’s flagship initiative to promote quality and safety in medical imaging by strengthening medical radiation protection across Europe following a holistic, inclusive approach. EuroSafe Imaging is committed to supporting the Bonn Call for Action published by the International Atomic Energy Agency (IAEA) and co-sponsored by the World Health Organisation (WHO) by issuing the ‘EuroSafe Imaging Call for Action’, a 12-point action plan to achieve EuroSafe Imaging’s objectives of promoting appropriateness in radiological imaging, maintaining radiation doses within diagnostic reference levels, using the ALARA principle and promoting the use of up-to-date equipment, empowering patients, and joining forces with various stakeholders.

EuroSafe Imaging’s activities are led by a Steering Committee composed of stakeholder representatives. In addition, EuroSafe Imaging has established 5 different subgroups to work on specific projects:

- Appropriate image quality: Definition of what appropriate image quality is and creation of a grading/rating of completed CT examinations regarding the appropriateness.
- DRLs based on clinical indications: Establishment of a first complete set of EuroSafe Imaging Clinical DRLs.
- European CT dose repository: Analysis of tools for automatic dose monitoring and the most frequent pitfalls.
- Ask EuroSafe Imaging: Improvement of medical information for professionals and patients with FAQs and Tips & Tricks.
- EuroSafe Imaging Stars: Creation of a network of imaging departments committed to best practice in radiation protection.

Contact: www.eurosafeimaging.org
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Prof. Guy Frija, Chair EuroSafe Imaging Steering Committee
LATINSAFE: The Latin American Alliance for Radiation Protection of Patients

It is our pleasure to inform that on April 30, 2016, during the Jornadas Paulistas de Radiologia (JPR) held in Sao Paulo, Brazil, the LatinSAFE Alliance was officially launched.

LatinSAFE is the result of a collaborative effort of a group of Latin American radiologists that aims to advocate for radiation protection of patients in the region. Its origin dates back to the JPR 2015 whose central theme was "Diagnostic imaging with the right dose." During the meeting Dr. Donald Frush, director of the Image Gently Alliance, presented the objectives and strategies of the Image Gently campaign. At the same time, Dr. Luis Donoso, President of the European Society of Radiology, presented EUROSafe, the initiative of the ESR that advocates for radiation protection of patients in Europe. Considering that this issue had not been formally addressed in Latin America during the JPR a group of radiologists from Argentina, Brazil and Chile decided to create LatinSAFE.

The mission of LatinSAFE is to promote through education a safe practice of diagnostic imaging in Latin America with emphasis in radioprotection of patients, and to contribute to enhance the awareness of its importance among radiologists, technicians and other professionals involved in radiology, referring physicians, patients and parents and in the entire community. LatinSAFE is an alliance of individual persons and acts independently from other regional radiological organizations.

The executive committee of LatinSAFE is integrated by Drs. Pablo Soffia (Chile), María Inés Boechat (USA-Brasil), Claudio Bonini (Argentina), Alfredo Buzzi (Argentina), Pedro Daltro (Brasil), Hilton Leao Filho (Brasil), Renato Mendonca (Brasil), Rubén Michaux (Argentina), Marta Edith Oyuela (Colombia), Antonio Soares (Brasil), and Gloria Soto (Chile).

LatinSAFE now integrates a global network of partnerships that advocate for patient’s safety in diagnostic imaging, including Image Gently, Image Wisely, EuroSAFE, Canada Safe Imaging, JapanSAFE and AfroSAFE among others, and shares their goal of ensuring that radiation protection of patients is considered a priority in the practice of radiology.

More information in www.latinsafe.org

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