

**NEW
DEAD-
LINE**



REPROLAM-IAEA: INTERNAL DOSIMETRY AND RETROSPECTIVE DOSIMETRY SURVEYS FROM FEBRUARY 03 TO MARCH 31, 2022 WITHOUT EXTENSION

The **IAEA**, with the support of **REPROLAM**, is organizing surveys to identify the capacities installed in the Latin American and Caribbean region to carry out Internal Dosimetry and Retrospective Dosimetry using luminescence methods (TL and OSL) and Electron Paramagnetic Resonance Spectroscopy (EPR). From these surveys we seek to know aspects related to the technical infrastructure and human resources dedicated to these dosimetries. The results of the surveys will make it possible to identify the strengths, needs and problems related to capacities in the field of Retrospective Dosimetry and Internal Dosimetry in the region. The laboratories that respond to the surveys will be considered in future activities promoted by the **IAEA** in regional projects, such as: participation in intercomparison exercises, webinars, training in the collection and analysis of samples, etc.

All **REPROLAM** members are invited to participate in these surveys and disseminate them in the region.

INTERNAL DOSIMETRY SURVEY

This survey is open to all Internal Dosimetry services in Latin America and the Caribbean. The online questionnaire will be available from February 3 to March 31, 2022 without extension. In the event that the same institution performs both direct and indirect measurements, the form must be completed once with all the data. It can be completed in several stages without losing the data previously uploaded in the following link:

<https://forms.gle/58qTy4UerU9ARq2C9>

The main query topics are the following:

- 1.- General information about the institution
- 2.- Direct measures
- 3.- Indirect measures
- 4.- Functions of the service
- 5.- Education and training
- 6.- Quality guarantee program

In case of doubts, you can send your query to Mariella Terán mterangretter@gmail.com

RETROSPECTIVE DOSIMETRY SURVEY

This survey is open to all laboratories in Latin America that use luminescent or EPR techniques.

The online questionnaire will be available from February 03 to March 31, 2022 without extension. Each laboratory interested in participating in answering the questionnaire will be represented by the head of the laboratory, regardless of whether each institution has more than one laboratory of these characteristics. It can be completed in several stages without losing the data previously uploaded in the following link:

<https://forms.gle/x91uNbNaDgfk9ATZ8>

The main query topics are the following:

- 1.- General information with laboratory data
- 2.- Laboratory experience
- 3.- Sample preparation
- 4.- Instrumentation available
- 5.- Specific capabilities of the laboratory related to luminescence measurement
- 6.- Irradiation system available
- 7.- Data processing
- 8.- Availability to participate in activities related to the creation of the network of laboratories in Latin America and the Caribbean

In case of doubts, you can send your query to vcd160664@gmail.com

REPROLAM-IAEA: WEBINAR: INFORMATIVE FOR FILLING OUT THE SURVEY ON RETROSPECTIVE DOSIMETRY IN LATIN AMERICA AND THE CARIBBEAN MARCH 4, 2022 - AT 12 PM IN BRASILIA

We invite you to participate in the informative webinar for the completion of the survey on Retrospective Dosimetry to be held on March 4 at 12 noon in Brasilia.

The objective of this webinar is to clarify the doubts to fill out the survey and support the laboratories to participate in this very important activity for the strengthening of our region.

Link: <https://meet.google.com/vjr-djrr-mjy?pli=1>



Dr. Virgilio Correcher
CIEMAT (Center for Research,
Energy, Environment and
Technology)



Dr Helen Khoury
REPROLAM Coordinator



REPROLAM-IAEA: WEBINAR: INTERNAL DOSIMETRY SURVEYS RESUME

On February 23, a webinar was held to clarify doubts about the survey that is being carried out regarding Internal Dosimetry of Occupationally Exposed Workers. We had the presence of 22 participants who, thanks to their generous collaboration, provided comments that have allowed us to make adjustments to the questionnaire to facilitate its completion. Unfortunately we could not record the meeting but we highlight the following points that were addressed:

- Emphasis was placed on the participation of the largest number of institutions that carry out internal dosimetry measurements in TOEs, not only specific laboratories but also nuclear medicine clinics that keep track of their employees.
- Added the option to upload documents with data on working energies and calibration factors for both direct and indirect measurements
- The deadline for filling out the survey was extended until March 31, 2022.

We thank everyone for their time and remain at your disposal for any questions you may deem pertinent.

Link to the survey: <https://forms.gle/58qTy4UerU9ARq2C9>

Email for inquiries: mterangretter@gmail.com

REPROLAM: PILOT PLAN TO MEASURE AND ASSESS THE DOSE DUE TO INTERNAL EXPOSURE TO I-131 FROM THE TOES



The PILOT PLAN TO MEASURE AND ASSESS THE DOSE DUE TO INTERNAL EXPOSURE TO I-131 OF TOES promoted by REPROLAM, was presented by Celeste Galarza at the Web Seminar organized by the Latin American Network for Radiological Protection in Medicine - Red LAPRAM, on the 25th of February before a significant attendance of people from several Latin American countries, Spain and Portugal.

The video of the Webinar can be viewed at:

<https://www.youtube.com/channel/UCYJBhtjS-a758IX4YiJquaA/videos>

SAFETY FIRST

Space dedicated to common understanding and the promotion of Safety Culture through information, analysis, dissemination of experiences and related news.

SEEKING TO ACHIEVE A GREATER SAFETY CULTURE: THE PARTICULARITIES AND RULES THAT WE CANNOT OVERCOME (SECOND AND FINAL PART) [1]



In the previous bulletin, the peculiarities of Culture were mentioned, as a phenomenon, which cannot be ignored when working on improving the Safety Culture. As has also been pointed out above, working on the Safety Culture in an organization means producing a cultural change, to a greater or lesser degree, according to the specific situation of each organization. However, as a cultural change in the end, there are a series of rules that must also be respected to ensure that this process is carried out appropriately and leads to the desired transformative results. But what are those rules of cultural change? In summary, they can be noted below:

- It must be a profound transformation, involving changes in practices, structures and values of the organization. It is not an exercise or manifestation of ideas, desires or intentions. Any confusion or erroneous expectation in this regard should be avoided.
- It must be a process encouraged by Senior Management based on their influence and leadership, drawing the rest of the organization by example, actions and dialogue.
- It is necessary that throughout the process a strong sense of “we” is maintained, that is, that the change corresponds to everyone. The distances between the agents of change and the rest of the members of the organization must be reduced.

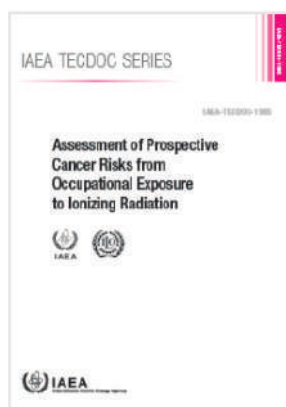
- Work must be done with realistic goals, taking into account that in matters of Culture not everything can be covered. It is advisable to prioritize and focus efforts.
- The permanence of the changes should be sought and not momentary or fleeting fixes.
- Nothing should be started that cannot be followed up and completed.
- At all times, the change process must keep Culture in the focus of action, avoiding diluting or diverting attention to collateral issues. The cultural perspective must be at the center of any action, analysis or decisions during this process.
- The organization's Senior Management must constantly verify how proposals for cultural change are received at lower levels of the organization, ensuring that what is sought is well understood.
- A focus on simultaneous advancement of changes throughout this process must be achieved, without waiting for one stage to be completed before moving on to the next, adapting actions according to the circumstances and the evolution that is being achieved.

The understanding of the peculiarities of the Culture and of the steps and rules of a process of cultural change constitute the theoretical basis for the actions of promotion and development of the Culture of Safety in any environment, including the field of protection and radiological safety and physics of radiation sources. This will ensure that the change process always leads to positive results.

References used:

[1]. FORUM Guide on Safety Culture of Organizations, Facilities and Activities with sources of ionizing radiation, 2015.

Rubén Ferro (Cuba) y Renán Ramírez (Perú)



ASSESSMENT OF POTENTIAL CANCER RISKS FROM OCCUPATIONAL EXPOSURE TO IONIZING RADIATION

Artificial sources of radiation are commonly used in the manufacturing and service industries, research institutions and universities, and the nuclear power industry. As a result, workers can be exposed to artificial sources of radiation. There are also a significant number of workers, such as underground miners and aircrew, who are exposed to naturally occurring sources of radiation. This publication, prepared in collaboration with the International Labour Organization, and with reference to IAEA Safety Standards Series No. GSR Part 3 provides guidance for individuals and organizations on the assessment of prospective cancer risks due to occupational exposure to ionizing radiation for prevention purposes. It describes cancer risk assessment theory, models and methodologies, and offers practical examples of carrying out these assessments.

<https://www.iaea.org/publications/14916/assessment-of-prospective-cancer-risks-from-occupational-exposure-to-ionizing-radiation>

BRAIN4CARE WEBINAR: PHYSICS APPLIED TO BRAIN HEALTH: A BRAZILIAN INNOVATION WITH GLOBAL IMPACT THURSDAY, MARCH 10, 2022 - 19:30 (-03)

ABOUT THE EVENT

With great enthusiasm we present the Brazilian technology brain4care, an innovation disruptive, created in São Carlos (SP) by the physicist Sérgio Mascarenhas, founder of Sapra, leading company in Brazil in personal dosimetry services.



Brain4care is a pioneering technology to non-invasively monitor volume/pressure variations within the skull, also known as intracranial compliance (ICC), an indicator of neurological health whose deterioration can lead to brain dysfunction. It allows doctors and teams to improve the relevance of care, patient safety and optimization of resources, providing additional information that qualifies the diagnosis, guides therapy and indicates the evolution of neurological disorders, which is the leading cause of disability and the second cause of premature death in the world, especially in low and middle income countries (78.5% of deaths and 77.3% of disability - Lancet Neurology).

Reality requires technologies that break down walls and connect the need for health with the means of resolution, eliminating waste. brain4care's technology is simple and affordable, allowing healthcare professionals to work together to achieve the result that really matters: drastically reduce mortality and disability caused by neurological disorders, putting technology at the service of humans to provide universal access to the best results.

Mediation:



Yvonne Mascarenhas -
Director Sapra Landauer



Paulo Mascarenhas
Director Sapra Landauer

Speakers:




Regiane Alves -
Access and Adoption
Manager at brain4care



Gustavo Frigieri
Scientific Director of brain4care

For registration and more information:

<https://app.livestorm.co/brain4care/fisica-aplicada-a-saude-cerebral-uma-inovacao-brasileira-de-impacto-global>



International Commission on Radiological Protection

ICRP:
RELATIVE BIOLOGICAL EFFECTIVENESS (RBE) WEBINAR
WEDNESDAY, MARCH 16, 2022 - 12:00 PM – 1:30 PM GMT
PLAFORM: ZOOM

Over the next decade, ICRP will be hosting several Digital Events each year as they look to review and revise the System of Radiological Protection for the next generation.

This webinar will be moderated by Gayle Woloschak (Professor, Departments of Radiation Oncology, Radiology, and Cell and Molecular Biology, Robert H. Lurie Comprehensive Cancer Center, Feinberg School of Medicine, Northwestern University).

"Exploring Relative Biological Effectiveness" will take place on 16 March 2022 from 12:00 to 1:30pm GMT, and will be hosted by Gayle Woloschak (Professor, Departments of Radiation Oncology, Radiology, and Cell and Molecular Biology, Robert H. Lurie Comprehensive Cancer Center, Feinberg School of Medicine, Northwestern University) and ICRP Task Group 118.

We are committed to attendance equity, inclusiveness, and accessibility. Because of that, this workshop is FREE so that anyone, anywhere can participate regardless of geographic location or economic standing. Anyone who is in a position to support a small attendance fee is encouraged to select one of the paid options. By doing so, you're helping remove attendance barriers worldwide.

To register:

<https://icrp.us18.list-manage.com/track/click?u=6cac8eb3908a91327831893e2&id=98673a7025&e=9aefb544f2>

XII REGIONAL CONGRESS OF RADIOLOGICAL AND NUCLEAR SAFETY X IRPA REGIONAL CONGRESS RADIATION PROTECTION: ADAPTING TO NEW SCENARIOS FROM OCTOBER 23 TO 27, 2022 - SANTIAGO, CHILE



The XII REGIONAL CONGRESS OF RADIATION AND NUCLEAR SAFETY - X IRPA REGIONAL CONGRESS to be held in Santiago de Chile from October 23 to 27 of this year, is receiving abstracts until April 30 in the following thematic areas:

RADIATION PROTECTION

Occupational Radiological Protection in Medicine
Occupational Radiological Protection in Industry
Occupational Radiological Protection in Research
Radiological protection of the patient
Radiological protection of the public
Radiological protection of the environment
Radiobiology
Biological Dosimetry
Radioepidemiology
Radiopharmacy
Dosimetry
Instrumentation
Natural radiation, NORM and TENORM

SAFETY CULTURE

Radiological and nuclear safety culture
Risk perception and communication with the public
Ethics in the use of ionizing radiation
Education and training in Radiological Protection

INNOVATION AND TECHNOLOGY

New technologies and approaches
Artificial intelligence applied to Radiological Protection
Non-ionizing radiation

SECURITY

Security in nuclear and radiological facilities
Policies and Regulatory Framework in Radiological Protection
Radiological Protection Recommendations
Radiological and nuclear emergencies
Radioactive Waste Management
Transport of Radioactive Material
Guarantee and Quality Control

Organizado en cooperación con:



More details at:

<https://www.sochipra.cl/congreso-regional-santiago-de-chile-2022/>

LAUNCH OF THE ONLINE LEARNING MODULE ON IAEA SAFETY REQUIREMENTS FOR RADIATION PROTECTION

A click away: the newly launched e-learning module on IAEA Safety Standard General Safety Requirement (GSR) Part 3 on Radiation Protection and Safety of Radiation Sources provides a condensed overview of the safety requirements for radiation protection and for radiation sources.

“It is the first in a larger e-learning initiative that will cover all IAEA safety requirements,” said Dominique Delattre, Head of the Safety Standards and Security Guidance Development Section at the IAEA. “In about one hour, those interested can get a good overview on the Safety Requirements and why they are important for the use of nuclear science and technology for peaceful applications.”

The IAEA Safety Standards provide a robust framework of safety fundamentals, requirements and guides to meet the requirements for the safe use of nuclear and radiation technology in areas such as medical uses of radiation, the operation of nuclear facilities, the production, transport and use of radioactive material and the management of radioactive waste. They reflect an international consensus and serve as the global reference for protecting people and the environment from harmful effects of ionizing radiation. “Regulating safety is a national responsibility and the IAEA safety standards help regulators and operators achieve higher standards of safety,” Delattre added. “To increase the awareness globally about the IAEA safety standards, making online learning available is vital.”

The new e-learning module will provide users with a broad understanding of how the publication applies fundamental safety principles to radiation protection and safety of radiation sources; the application of radiation protection principles to each exposure situation; how requirements are applied for each exposure situation; and the specific responsibilities assigned to governments, regulatory bodies, licensees and workers to implement the safety requirements for radiation protection.

“This e-learning course not only provides a comprehensive introduction to the purpose and scope of the GSR part 3, but also, and even more importantly, may help with its applications,” said Miroslav Pinak, Head of the IAEA’s Radiation Monitoring and Safety Section. “For example, a comprehensive explanation of application of relevant requirements in different exposure situations is especially valuable for many Members States in helping them to develop radiation protection programmes.”

HOW DOES IT WORK?

In person, classroom-based capacity building efforts often attract participants who are established in the nuclear field, but e-learning can draw a wider selection of learners.

The module is broken down into four chapters: background, scope and structure of GSR part 3; planned exposure situations; existing exposure situations; and emergency exposure situations. Each chapter provides insights to the main areas of the publication. The module offers links to different resources focused on specific topical areas throughout, such as occupational radiation protection and justification of facilities and activities. This enables users to directly access the specific resources that are applicable to them.



Having 52 overarching requirements in total, the GSR part 3 is the lengthiest of all the general safety requirements. "This publication is so complex that it is useful to first have an initial introduction of the document in order to better comprehend its overall structure and interpret the content," said Tatiana Karseka-Yanev, Nuclear Safety Officer at the IAEA and one of the developers of this online course, "the e-learning module provides this framework and covers the GSR's in a manner that is easy to grasp and understand."

Those interested in completing the course can do so at any time free of charge through the IAEA Learning Management System.

<https://www.iaea.org/newscenter/news/iaea-safety-requirements-on-radiation-protection-online-learning-module-launched>



XXVI BRAZILIAN CONGRESS OF MEDICAL PHYSICS -CBFM
PRESENTIAL. BETWEEN JUNE 07 AND 11, 2022 IN THE CITY OF FORTALEZA, CE.

Physicists from Radiodiagnosis, Nuclear Medicine, Radiotherapy, as well as students and residents, will find a structure prepared for intense scientific discussions with the participation of national and international guests, who will discuss current and relevant issues for each area. This year, technical professionals, technologists, biomedics and dosimetrists will also have a space within the event's programming.

Action	Date
Opening for the submission of works	15/01/2022
Job Submission Limit	15/03/2022
First Job Acceptance	15/04/2022
Limit of the corrections requested in the works	25/04/2022
Final acceptance of works	05/05/2022
End of registrations with discount	10/05/2022
End of online registration	30/05/2022
Start of the Congress	08/06/2022

For more information: <https://www.cbfm.net.br/es>



REPORT HIGHLIGHTS LESSONS FROM INCIDENTS OF NUCLEAR MEDICINE

ARPANSA has completed its annual report on radiation safety incidents using data collected from radiation regulators across the country. The report helps identify opportunities for improvement in the safe use of radiation, particularly in the medical sector.

The new report from the Australian Radiation Incident Register (ARIR) provides a summary and analysis of incidents that occurred during 2020. The report includes a focus on workflows in nuclear medicine. Nuclear medicine accounted for 157 of the 803 reported incidents for 2020.

"Ensuring that the right patient receives the right amount of the right radiopharmaceutical is a vital part of nuclear medicine," said Mr. Jim Scott, ARPANSA's Director of Regulation, "asking checking questions at the right time and organizing your work can help prevent mistakes."

Assessing workflow or patient journey can help identify areas for improvement. Examples from the report include reducing the number of vials in the workspace, effective use of color coding and placement, and use of labels and computer scanning.

"These incidents, while rare, highlight learnings from nuclear medicine incidents that can be applied in many different settings," said Mr. Scott.

"Overall, we continue to see an increase in the number of reported incidents each year," said Mr Scott, "this increase is likely due to better reporting practices, rather than an increase in actual incidents."

"It is a reflection of good regulatory practices between hospitals, organizations and contributing states. Everyone can learn from each other's experiences to ensure the safe use of radiation in Australia."

Report findings include:

- A total of 803 reported incidents, demonstrating increased awareness of reporting
- 529 of the reported incidents were in diagnostic radiology, 157 in nuclear medicine and 40 in radiotherapy
- patients were exposed to less than 1 mSv of radiation in 47% of incidents
- human error was identified as a factor in more than 65% of incidents
- Equipment failures or deficiencies accounted for 17% of incidents.

ARIR information raises awareness of where, how, and why radiation-related incidents and events occur, and shares strategies to prevent them.

Both the ARIR and this summary report play an important role in ensuring the continued safety of Australians who use or receive radiation.

<https://www.arpansa.gov.au/news/report-highlights-learnings-nuclear-medicine-incidents>



EUROPEAN RADIATION PROTECTION WEEK IN 2022

ERPW 2022

OCTOBER 9 TO 14, 2022, ESTORIL, PORTUGAL

We anticipate that ERPW-2022 will be a major gathering of experts, addressing burning and emerging topics and multidisciplinary issues in Radiation Protection, at times when integration and harmonization of RP and the effective implementation of a European Radiation Research Area are at stake. The European research platforms will be closely involved in the organization of the event, together with the international organizations and institutions and several hundreds of participants are expected to attend and contribute to the Programme.

We aim at shaping an outstanding scientific Programme and look forward to meeting you in Estoril, next October!

For more information: <https://erpw2022-portugal.eu/index.php>



The Network for the Optimization of Occupational Radiological Protection in Latin America and the Caribbean (REPROLAM) is a scientific and cultural society, without profit, political, religious or racial, of unlimited duration, which has the objective of promoting the optimization of occupational radiation protection. REPROLAM seeks to expand academic and scientific cooperation among its members, with the aim of promoting adequate radiation protection for workers.

Visit our website for more information: <http://www.reprolam.com/>

How to contact: reprolam2020@gmail.com