EuroSafe Imaging 2023 Webinar Series – Radiation Protection into Clinical Perspectives

Webinar 1 – Introduction to radiation protection: Tuesday 5 September 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will give an introduction to radiation protection and cover dose descriptors for radiography, fluoroscopy and CT; dose quantities in medical imaging; and dose reporting in medical imaging. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in medical imaging
- Understanding the use of dose descriptors

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To understand the dose descriptors in each medical imaging modality
- To know how to use dose descriptors in the report of the medical imaging procedure
- To understand the importance of radiation protection and optimisation in medical imaging

Speakers: Joana Santos, Mika Kortesniemi, and Ilze Apine.
Host: Deniz Akata

Detailed programme

• Introduction by Deniz Akata (5 min)

• 1st Presentation on dose descriptors for radiography, fluoroscopy and CT, by Joana Santos (15 min)

• 2nd Presentation on dose quantities in medical imaging: from concept to clinical use, by Mika Kortesniemi (15 min)

• 3rd Presentation on dose reporting in medical imaging, by Ilze Apine (15 min)

•MCQ assessment (10 min)

Live Q&A from the audience, moderated by Deniz Akata (25 min)

• Conclusion and key messages by Deniz Akata (5 min)

Webinar 2 – Radiation protection in paediatric imaging (radiography): Tuesday 19 September 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover dose reduction tools and strategies in paediatric radiography, optimisation principles in paediatric radiography, establishment and implementation of diagnostic reference levels (DRLs) for radiography in paediatric patients. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in paediatric radiography
- Implementing Diagnostic Reference Levels in paediatric imaging.

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).

Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To understand key dose reduction tools and strategies for radiography in paediatric imaging.
- To become familiar with the optimisation principles in radiography.
- To learn how to establish and implement Diagnostic Reference Levels in paediatric imaging.

Speakers: Jessica Eaton, Constantin Schareck, and Sergio Salerno
Host: Deniz Akata

Detailed programme

• Introduction by Deniz Akata (5 min)
• 1st Presentation on dose reduction tools and strategies, by Jessica Eaton (15 min)
• 2nd Presentation on optimisation principles, by Constantin Schareck (15 min)
• 3rd Presentation on establishment and implementation of Diagnostic Reference Levels for radiography in paediatric patients, by Sergio Salerno (15 min)
•MCQ assessment (10 min)
Live Q&A from the audience, moderated by Deniz Akata (25 min)
• Conclusion and key messages by Deniz Akata (5 min)

Webinar 3 – Radiation protection in paediatric imaging (CT): Tuesday 3 October 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover dose reduction strategies in paediatric CT, paediatric CT acquisition parameters and optimal clinical protocols, and paediatric DRLs based on clinical indications. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in paediatric CT examinations
- Using DRLs based on clinical indications for CT

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To learn the effects of CT acquisition parameters on radiation dose and image quality.
- To understand key dose reduction strategies for CT examinations

- To become familiar with optimal CT protocols for common clinical indications
- To understand the utility of using DRLs based on clinical indications for CT

Speakers: Katrina Caikovska, Goran Roic and Jónína Guðjónsdóttir
Host: Shane Foley

Detailed programme

• Introduction by Shane Foley (5 min)
• 1st Presentation on dose reduction strategies in CT, by Katrina Caikovska (15 min)
• 2nd Presentation on CT acquisition parameters and optimal clinical protocols, by Goran Roic (15 min)
• 3rd Presentation on DRLs based on clinical indications, by Jónína Guðjónsdóttir (15 min)
•MCQ assessment (10 min)
Live Q&A from the audience, moderated by Shane Foley (25 min)
• Conclusion and key messages by Shane Foley (5 min)

Webinar 4 – Radiation protection in paediatric imaging (interventional):
Tuesday 17 October 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover dose reduction strategies in paediatric FGI, dose management in paediatric FGI, Benefit-Risk communication strategies in paediatric FGI. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in paediatric interventional procedures
- Communicating risk effectively to patients

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To consider dose management in FGI including both stochastic and tissue reactions with associated trigger levels
- To review optimal strategies for patient dose optimisation
- To understand evidence-based risk communication strategies for informing patients of radiation risks

Speakers: Lauren Davies, Philipp Wiggermann

Host: Jonas Andersson

Detailed programme

• Introduction by Jonas Andersson (5 min)

• 1st Presentation on dose reduction strategies in FGI, by Lauren Davies (15 min)

• 2nd Presentation on dose management in FGI, by Philipp Wiggermann (15 min)

• 3rd Presentation on Benefit-Risk communication strategies (15 min)

•MCQ assessment (10 min)

Live Q&A from the audience, moderated by Jonas Andersson (25 min)

• Conclusion and key messages by Jonas Andersson (5 min)

Webinar 5 – Radiation protection in interventional neuroradiology (part 1):

Tuesday 31 October 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover dose reduction tools in interventional neuroradiology, optimisation principles in interventional neuroradiology, diagnostic reference levels based on clinical indications and dose reporting in interventional neuroradiology. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in interventional neuroradiology
- Establishing Diagnostic Reference Levels for interventional procedures

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To understand current interventional neuroradiology technological tools for dose reduction
- To understand the importance of radiation protection and optimisation in IR
- To learn how to establish Diagnostic Reference Levels

Speakers: Jose Binghay and Christina Iosif
Host: Graciano Paulo

Detailed programme

• Introduction by Graciano Paulo (5 min)
• 1st Presentation on dose reduction tools, by Jose Binghay (15 min)
• 2nd Presentation on optimisation principles (15 min)
• 3rd Presentation on Diagnostic Reference Levels based on clinical indications and dose reporting, by Christina Iosif (15 min)
•MCQ assessment (10 min)
•Live Q&A from the audience, moderated by Graciano Paulo (25 min)
• Conclusion and key messages by Graciano Paulo (5 min)

Webinar 6 – Radiation protection in interventional neuroradiology (part 2): Tuesday 14 November 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover managing occupational exposure in interventional neuroradiology; radiation effects on patients and staff in FGI; and typical values in FGI, trigger levels, follow-up and reporting events. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in interventional neuroradiology

- Understanding trigger levels and how to implement a follow up and notification process

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To understand the level of occupational exposure in IR and how to develop strategies to decrease it
- To be aware of the effects of ionising radiation in patients and staff
- To learn about the concept of trigger levels and how to implement a follow up and notification process

Speakers:. Graciano Paulo, Alexander Schegerer, and Christina Iosif
Host: Graciano Paulo

Detailed programme

• Introduction by Graciano Paulo (5 min)
•1st Presentation on managing occupational exposure in interventional neuroradiology, by Graciano Paulo (15 min)
• 2nd Presentation on radiation effects on patients and staff in FGI, by Alexander Schegerer (15 min)
• 3rd Presentation on typical values in FGI, trigger levels, follow-up and reporting events, by Christina. Iosif (15 min)
•MCQ assessment (10 min)
Live Q&A from the audience, moderated by Graciano Paulo (25 min)
• Conclusion and key messages by Graciano Paulo (5 min)

Webinar 7 – radiation protection of pregnant patients: Tuesday 28 November 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover dose to the foetus from radiography, CT and FGI; dose reduction strategies in imaging of pregnant patients, Benefit-Risk communication strategies in imaging of pregnant patients. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and optimisation in imaging of pregnant patients
- Understanding evidence-based risk communication strategies for informing patients of radiation risks

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To learn about dose to foetus levels in diagnostic imaging
- To review optimal strategies for patient dose reduction in diagnostic imaging
- To understand evidence-based risk communication strategies for informing patients of radiation risks

Speakers: Ivana Kralik, Moreno Zanardo and Jelena Popić
Host: Shane Foley

Detailed programme

• Introduction by Shane Foley (5 min)
•1st Presentation on dose to the foetus from radiography, CT and FGI, by Ivana Kralik (15 min)
• 2nd Presentation on dose reduction strategies, by Moreno Zanardo (15 min)
• 3rd Presentation on Benefit-Risk communication strategies, by Jelena Popić (15 min)
•MCQ assessment (10 min)
Live Q&A from the audience, moderated by Shane Foley (25 min)
• Conclusion and key messages by Shane Foley (5 min)

Webinar 8 – Radiation protection of pregnant staff: Tuesday 12 December 2023 from 18:00 to 19:30

Webinar overview

The programme of this webinar will cover international guidelines about exposure of pregnant staff professionally exposed to ionising radiation, strategies to reduce occupational exposure of pregnant staff, and dose monitoring of pregnant staff. It is aimed at radiologists, radiographers, and medical physicists who want to improve their skills in:

- Radiation protection and occupational dose reduction for pregnant staff
- Optimal personal dose monitoring in interventional radiology

The webinar includes presentations from medical experts (one presentation will be delivered by a radiologist, one by a radiographer and one by a medical physicist), live online assessments, and a live Q&A discussion (based on audience questions).
Duration: 90 minutes

Learning objectives

After watching the webinar, participants will be able to:

- To become familiar with guidelines and legislation related to pregnant staff exposed to ionising radiation
- To review optimal strategies for occupational dose reduction for pregnant staff
- To consider the importance of optimal personal dose monitoring in IR

Speakers: Ayca Karaosmanoglu, Silvia Svetlic and Paddy Gilligan
Host: Boris Brkljacic

Detailed programme

Introduction by Boris Brkljacic (5 min)
•1st Presentation on international guidelines about exposure of pregnant staff professionally exposed to ionising radiation, by Ayca Karaosmanoglu (15 min)
• 2nd Presentation on strategies to reduce occupational exposure of pregnant staff, by Silvia Svetlic (15 min)
• 3rd Presentation on dose monitoring of pregnant staff, by Paddy Gilligan (15 min)
•MCQ assessment (10 min)
Live Q&A from the audience, moderated by Boris Brkljacic (25 min)

- Conclusion and key messages by Boris Brkljacic (5 min)