







The European Diploma in Musculoskeletal Radiology: Webinar Program of the ESSR

Mitja Rupreht, MD, PhD^{1,2}  Marc-André Weber, MD, MSc, EDiMSK³ 
 Elena Drakonaki, MD, PhD, EDiMSK^{4,5}  Carlo Martinoli, MD, PhD⁶ Filip Vanhoenacker, MD, PhD^{7,8,9} 
 Philip Robinson, MB, ChB (Honors), FRCR¹⁰  Miraude Adriaensen, MD, PhD, MSc, EDiMSK¹¹ 

¹ Radiology Department, University Medical Centre Maribor, Maribor, Slovenia

² Medical Faculty, University of Maribor, Maribor, Slovenia

³ Institute of Diagnostic and Interventional Radiology, Paediatric Radiology and Neuroradiology, University Medical Centre Rostock, Rostock, Germany

⁴ Department of Anatomy, University of Crete School of Medicine, Heraklion, Greece

⁵ Department of MSK Imaging, Diagnostic and Interventional Ultrasound Practice, Heraklion, Greece

⁶ Department of Health Sciences, University of Genoa, Genova, Italy

Address for correspondence Mitja Rupreht, MD, PhD, Radiology Department, University Medical Centre Maribor, Slovenia, Medical Faculty, University of Maribor, Maribor, Slovenia (e-mail: mitja.rupreht@guest.arnes.si).

⁷ Department of Radiology, Antwerp University Hospital, Edegem, Belgium

⁸ Department of Radiology, AZ Sint-Maarten, Mechelen, Belgium

⁹ Faculty of Medicine and Health Sciences, Universities of Antwerp and Ghent, Belgium

¹⁰ Radiology Department, Chapel Allerton Hospital, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom

¹¹ Department of Medical Imaging, Zuyderland Medical Centre, Sittard-Geleen, Heerlen, Brunssum, Kerkrade, The Netherlands

Semin Musculoskelet Radiol

Abstract

Keywords

- ▶ European Society of Musculoskeletal Radiology
- ▶ webinar
- ▶ European diploma
- ▶ musculoskeletal radiology

The European Diploma in Musculoskeletal Radiology (EDiMSK) is a recognized European qualification of excellence for musculoskeletal (MSK) radiologists. Webinars have become a vital component of electronic learning. This article introduces European Society of Musculoskeletal Radiology members to its webinar program that offers an additional source of direct interactive learning from renowned MSK radiologists. These webinars contribute to Continuing Medical Education and assist in preparing for the EDiMSK exam. We discuss the concept, history, and organization of the webinars.

What Is a Webinar?

A webinar, short for web seminar, is an online event conducted live over the Internet. It enables participants to engage in presentations, lectures, workshops, or seminars from remote locations. Webinars are a powerful form of electronic learning material (ELM), offering a flexible and cost-effective way to deliver content, facilitate professional development, and promote community engagement.^{1,2}

Webinars and Continuing Medical Education

Continuing Medical Education (CME) is essential in health care by helping ensure that physicians are always up to date on the latest information in their field. In most European countries, CME is required for obtaining and maintaining accreditation.^{3,4} Despite the post-pandemic resurgence of live educational events (LEE), ELM and hybrid events are gaining

importance, especially among younger professionals.⁵

A 2019 survey by the Accreditation Council in Imaging (ACI) revealed that 80% of respondents believe CME accreditation would enhance their motivation to attend webinars, underscoring the need for expanded accreditation to maintain quality and eliminate commercial bias.⁶ The COVID-19 pandemic further accelerated the shift toward online education, consisting primarily of webinars and on-demand resources.⁷⁻⁹

The European Accreditation Council for Continuing Medical Education and ACI adapted by enabling providers to convert LEE to ELM.⁵ A 2023 ACI survey indicated improved ELM content quality since the pandemic's onset in spring 2020, with a focus on preserving speaker engagement and interactivity.⁵

Concept of European Society of Musculoskeletal Radiology Webinars

The European Society of Musculoskeletal Radiology (ESSR) live webinars are designed for radiologists and residents in radiology with an interest in musculoskeletal (MSK) imaging and MSK interventions.¹⁰ The aim is to promote the society's mission in education and research of imaging and image-guided therapy of MSK diseases with a focus on the European tradition of problem

solving in this field.¹⁰ New knowledge should be brought from science into clinical practice. The webinars contain interactive lectures given by opinion leaders in their field, clinical case vignettes, live discussions, and practice tips.¹⁰ Presentations are optimized for micro e-learning (i.e., for the comfortable use with mobile devices).¹⁰ The learning objectives are focused on the requirements of the European Diploma in Musculoskeletal Radiology (EDiMSK) offered by the ESSR and the MSK part of the European Diploma in Radiology offered by the European Board of Radiology.^{10,11}

Brief History of European Society of Musculoskeletal Radiology Webinars

The first ESSR webinar was held on May 7, 2018, initiated by ESSR president-elect Prof. Franz Kainberger and

the chair of the ESSR Education Committee, Prof. Carlo Martinoli. Dr. Omar Albtoush, member at that time of the newly established ESSR Young Club during the ESSR Annual Meeting in Bari in 2017, presented two cases of complex joint trauma, followed by Prof. Franz Kainberger's lecture on multimodality imaging of early arthritis. This historical webinar, moderated by Dr. Danoo Dalili, member of the ESSR Young Club at that time, was recorded and is still accessible on the ESSR website¹² under the tab "ESSR WEBINARS."

As of June 2024, 50 of 54 past webinars are available for ESSR members (► **Table 1**). At the beginning, each session typically included presentation of a national MSK society or MSK group, a warm-up case, a main lecture, and finally an interactive audience question-and-answer section. The basic structure has remained with some flexibility. There

Table 1 ESSR webinars from 2018 with lecturers and case presenters

Year	Title	Case presenter	Speaker
2018f	Imaging of early arthritis—new frontiers for multimodality imaging	Omar Albtoush/DE	Franz Kainberger/AT
	Imaging of osteoporosis and body composition	Carmelo Messina/IT	Giuseppe Guglielmi/IT
	Imaging of the tendons and ligaments of the ankle	Alexys Perez/ES	Eva Llopis/ES
	Lumps and bumps of the soft tissue—how to differentiate benign from malignant lesions?	Julie Desimpel/BE	Filip Vanhoenacker/BE
2019	MRI of the pediatric knee	Bert Degrieck/BE	Lennart Jans/BE
	Exploring the jungle of the posterior triangle of the neck with ultrasound	Federico Zaottini/IT	Carlo Martinoli/IT
	Sports imaging: Imaging athletic groin pain	Hardi Madani/UK	Philip Robinson/UK
	Subtle and manifest signs of spinal injury	Timothy Woo/UK	Victor Cassar-Pullicino/UK
	ESOI/ESSR joint webinar: Imaging and response assessment of multiple myeloma		Andrea Baur-Melnyk/DE
	Knee femoropatellar instability: How does CT/MRI contribute to treatment decision?	Ana Catarina Vieira/PT	Diana Afonso/PT
	Spinal degenerative disk disease	John Hynes/IE	Eoin Kavanagh/IE
	Postoperative shoulder	Benedikt Schwaiger/DE	Klaus Wörtler/DE
2020	Imaging of elbow instability	Florian Huber/CH	Reto Sutter/CH
	Early-onset OA of the hip joint	Evangelia Vassalou/GR	Apostolos Karantanas/GR
	Interventional musculoskeletal ultrasound: Common applications		Jon A. Jacobson/USA
	Rheumatoid arthritis	Grzegorz Pracon/PL	Iwona Sudol-Szopinska/PL
	Imaging of cruciate ligaments	Magdalena Chmiel-Nowak/PL	Anagha P. Parkar/NO
	The MSK: Soft tissue tumors		Filip Vanhoenacker/BE
	Metal artifact reduction MRI: From principle to practice		Jan Fritz/BE
	Care, learn, innovate: The role of imaging professionals in the management of osteoporosis patients		Eleni Kariki/UK
	Imaging of osteoarthritis		Edwin Oei/NL

Table 1 (Continued)

Year	Title	Case presenter	Speaker
2021	MSK interventional oncology	Julia Weiss/FR	Roberto Luigi Cazzato/FR
	Imaging of shoulder instability		Christoph Schäffeler/CH
	Artificial Intelligence in MSK: Recent developments		Michael Recht/USA
	Congenital skeletal pathology: In search of the skeleton key		Pilar Aparisi Gómez/NZ/ES
	Imaging the menisci: The basics, pitfalls, and what not to miss	Holly Christopher/UK	Andrew Grainger/UK
	Clinical dilemmas in MR neurography interpretation		Shivani Alhawat/USA
	Possible traps in evaluating bone and soft tissue tumors	Kitija Nulle/LV	Hatice Tuba Sanal/TR
	Whole-body MRI: The optimal technique and the current musculoskeletal applications		Kai Vilanova/ES
	Role of imaging in body composition		Amanda Isaac/UK
2022	Spondylodiscitis infectious and noninfectious		Antoine Feydy/FR
	The limping child		Alberto Bazzocchi/IT
	Injuries of the hand and pulleys		Andrea B. Rosskopf/CH
	News in peripheral nerve imaging		Marie Faruch/FR
	Overuse sport lesions in children: Imaging findings		Alberto Vieira/PT
	US-guided carpal and cubital tunnel release		Alexander Loizides/AT
	Calf injuries		Jaime Isern-Kebschull, Gil Rodas (sports medicine surgeon)/ES
	Giant cell tumor of bone: Diagnosis and post denosumab findings from a radiology and pathology perspective		Kirsten van Langevelde/NL, Pancras Hogendoorn (pathologist)/NL
	Imaging of axial spondyloarthritis—a practical approach	Massimo Donalizio/CH	Patrick Omoumi/CH, Augusta Ortolan (rheumatologist)/IT
	Ultrasound imaging of skin tumors: Clues to the differential diagnosis	Elena Julián Gómez/ES	Elena Gallardo/ES
	2023	Bone-RADS	
Advances in MR imaging of the painful hip arthroplasty		Florian Schmaranzer/CH	Christian Pfirrmann/CH
MR imaging of pediatric growth plate disturbances			Saira Haque/UK
Cryoablation in the musculoskeletal system: Ten years of experience		Antoine Moutiez/FR	Thomas Le Corroller/FR, Roberto Luigi Cazzato/FR
Ultrasound of the distal biceps brachii tendon			Yacine Carlier (orthopaedic surgeon)/FR, Jean-Baptiste Pialat/FR, Antoine Moraux/FR, Lionel Pesquer/FR
Ultrasound elastography in musculoskeletal radiology		Nežka Harej/SI	Žiga Snoj/SI
Imaging of chest wall and abdominal wall in athletes			Javier Arnaiz/QT
Advances and value of MR imaging in early diagnosis of rheumatoid arthritis		Sanne Boeren/NL	Monique Reijnierse/NL, Annette van der Helm-van Mil/rheumatologist/NL
Soft tissue tumors in children			Emilio Inarejos/ES
US of iatrogenic nerve injuries			Elena Drakonaki/GR
2024	MSK infection in children: New techniques for well-known pathologies	Gianluca Folco/IT	Emilio Inarejos/ES
	Sacroiliitis in clinical practice and beyond		Filippo Del Grande/CH
	MRgFUS for the treatment of benign bone lesions	Julia Daffinà/IT	Francesco Arrigoni/IT
	US-guided interventional procedures of sport-related injuries	Matteo Catania/IT	Davide Orlandi/IT

Abbreviations: Bone-RADS, Bone Reporting and Data System; CT, computed tomography; ESOI, European Society of Oncologic Imaging; European Society of Musculoskeletal Radiology; MRgFUS, MR-guided focused ultrasound; MRI, magnetic resonance imaging; MSK, musculoskeletal; OA, osteoarthritis; US, ultrasound.

Countries cited: AT, Austria; BE, Belgium; CH, Switzerland; DE, Germany; ES, Spain; FR, France; GR, Greece; IE, Ireland; IT, Italy; LV, Latvia; NL, Netherlands; NO, Norway; NZ, New Zealand; PL, Poland; PT, Portugal; QT, Qatar; SI, Slovenia; TR, Turkey; UK, United Kingdom; USA, United States.

was one combined European Society of Oncologic Imaging (ESOI)-ESSR webinar in 2020 discussing soft tissue tumors. Starting in 2022, other disciplines related to MSK imaging became involved (sports medicine surgery, plastic surgery, orthopaedic surgery, pathology, and rheumatology). Since 2020, webinars have been held on Mondays and last an average of 71 minutes (range: 52–98 minutes). There are a maximum of 10 webinars per year, with a 2-month summer holiday break.

Webinar Organization and CME Accreditation

The ESSR webinar team, most of whom also moderated in the past, consists of a member of the Executive Committee (councillor responsible for webinars), the Chair of the Educational Committee, and a representative of the Young Club of the ESSR. Other members of the Educational Committee may also participate in the preparation (→Table 2). The ESSR office provides administrative support and ensures that all deadlines are met. Since 2023, ESSR subcommittees have become more involved in moderating the webinars as well as in proposing topics and speakers. Each webinar has been accredited with 1 CME point since 2022, meeting expectations of European radiologists, expressed in 2018.⁶ Timely application of CME submissions to the ACI are required for CME accreditation, and unexpected cancellations may result in nonaccredited substitute webinars.

Participants and Interactivity

For the first webinar held in 2018, only 100 participant places were available due to limitations of the software. The number of available spots for participants was quickly increased before the second webinar. The average number of participants is now 221 (range: 49–380), and the average number of questions posted is 14 (range: 3–70). The number of questions posted in the interactive audience question-and-answer section also reflects growing interactivity. To obtain CME credits, participants are required to complete an evaluation form after each webinar, providing

Table 2 Webinar teams since 2018

Year	6/2018–6/2019	6/2019–6/2020	6/2020–11/2020	11/2020–6/2021	6/2021–6/2022	6/2022–6/2023	6/2023–6/2024	6/2024–6/2025
ESSR Councillor on behalf of ESSR Executive Committee	Maria Tzalonikou	Maria Tzalonikou	Anagha Parkar, Sebnem Ihsan, Amanda Isaac	Ana Isabel Garcia Diez	Ana Isabel Garcia Diez	Ana Isabel Garcia Diez	Mitja Ruprecht	Mitja Ruprecht
ESSR Educational Committee chair	Miraude Adriaensen	Miraude Adriaensen	Miraude Adriaensen	Miraude Adriaensen	Elena Drakonaki	Elena Drakonaki	Elena Drakonaki	Marc-André Weber
ESSR Educational Committee member	Danoob Dalili	Danoob Dalili	Danoob Dalili	Danoob Dalili	Danoob Dalili	Danoob Dalili	Danoob Dalili	
ESSR Young Club representative			Carmelo Messina	Ana Vieira	Ana Vieira	Ana Vieira	Barbora Horehledova	Barbora Horehledova

valuable feedback. As the webinars and the platform continuously evolve, questions and proposals are welcome. ESSR members are invited to e-mail their input, including suggestions for webinars, topics, and speakers, to the ESSR office.

ESSR Webinars as Preparation for the EDiMSK Exam

Nearly all ESSR webinars are freely accessible to ESSR members in good standing and can serve as a valuable source of information for the written and oral part of the EDiMSK exam.^{12–15} They can be found under the “E-LEARNING” tab on the ESSR website,¹⁶ highlighting another advantage of the webinar concept. Other ELM, consisting of lectures of the ESSR annual meetings, tumor webinars, and ultrasound presentations, can be found at the same tab. Also, because CME credits in MSK events recognized by the ESSR are necessary to fulfill one of the eligibility criteria required to enter the EDiMSK exam, as well as to renew the EDiMSK, ESSR webinars represent a suitable tool to earn them.

Conclusion

The ESSR webinar program of the ESSR represents a very useful resource for candidates preparing for the EDiMSK and continues to develop with an increased variety of topics and participant interaction. We wish all candidates success at the EDiMSK examination.

Conflict of Interest

None declared.

Acknowledgment

We would like to express our gratitude to all presenters and panelists, moderators, webinar teams, the ESSR Executive Committee, all ESSR subcommittee chairs, and the ESSR office for their continuous support, enthusiasm, and time dedicated to the work on the ESSR webinars.

References

- 1 Mayday M. What is a webinar and how do webinars work? Accessed July 5, 2024 at: <https://www.on24.com/blog/how-webinars-work/>

- 2 Definition of a webinar. Available at: <https://www.merriam-webster.com/dictionary/webinar>. Accessed July 4, 2024
- 3 Lucic M. ACI Surveys on Accreditation systems in Europe. Available at: https://www.myebr.org/app/uploads/Report_ACI-Survey_European-accreditation-systems_2017.pdf. Accessed July 5, 2024
- 4 Kwee RM, Kwee TC. Maintenance of certification for radiologists: an overview of European countries. *Insights Imaging* 2020;11(01):85
- 5 Adriaensen M, Ricci P, Prosch H, Ruprecht M. Evolution of continuing medical education in radiology: on-site vs remote. *Insights Imaging* 2024;15(01):192
- 6 Loewe C, Lucic MA. Webinars as CME tools: a survey by the Accreditation Council in Imaging. Available at: https://www.myebr.org/app/uploads/Report_Webinars-as-CME-tool.pdf. Accessed July 5, 2023
- 7 Schulte TL, Gröning T, Ramsauer B, et al. Impact of COVID-19 on Continuing Medical Education—results of an online survey among users of a non-profit multi-specialty live online education platform. *Front Med (Lausanne)* 2021; 8:773806
- 8 Lucey CR, Davis JA, Green MM. We have no choice but to transform: the future of medical education after the COVID-19 pandemic. *Acad Med* 2022;97(3S): S71–S81
- 9 Rodriguez-Armendariz AG, Saint-Germain MA, Khalafallah AM, et al. The Neurosurgery Research & Education Foundation Young Neurosurgeons Committee webinar series: providing education and inspiration during the COVID-19 pandemic. *J Clin Neurosci* 2024; 120:221–228
- 10 European Society of Musculoskeletal Radiology. ESSR webinars. Available at: <https://www.essr.org/education/#essr-webinar>. Accessed July 5, 2024
- 11 European Board of Radiology. European Diploma in Radiology (EdiR). Available at: <https://www.myebr.org/edir/certification-of-excellence>. Accessed July 5, 2024
- 12 Weber MA, Adriaensen M, Drakonaki E, et al. European Diploma in Musculoskeletal Radiology: written part of the exam. *Semin Musculoskelet Radiol* 2025;29(03):
- 13 Weber MA, Ruprecht M, Drakonaki E, et al. European Diploma in Musculoskeletal Radiology: oral part of the exam. *Semin Musculoskelet Radiol* 2025;29(03):
- 14 Adriaensen M, Ruprecht M, Martinoli C, Vanhoenacker F, Robinson P, Drakonaki E. The European Diploma in Musculoskeletal Radiology: past, present, and future. *Semin Musculoskelet Radiol* 2024;28(03):352–355
- 15 Vanhoenacker F, Martinoli C. ESSR diploma: What's new? *J Belg Soc Radiol* 2017; 101:1–2
- 16 European Society of Musculoskeletal Radiology. E-Learning on demand. Available at: <https://www.essr.org/e-learning/>. Accessed July 7, 2024



THIEME