



# Basic Musculoskeletal Ultrasound (MSUS) Course Ciudad de México, México 2-4 September, 2024

# This course has been scientifically endorsed by EULAR

# SCIENTIFIC DIRECTORS

Esperanza Naredo (Spain) Mario Chávez (México) Ingrid Möller (Spain)

# LOCAL SCIENTIFIC ORGANISERS

Mario Chávez (México) Ana Laura Álvarez del Castillo (México) Carlos Pineda (México)

#### VENUE

Hotel Fiesta Americana Reforma

Av. Paseo de la Reforma 80, Juárez, Cuauhtémoc, 06600 Ciudad de México, CDMX Teléfono: 55 5140 4100

https://www.fiestamericana.com/hoteles-y-resorts/fiesta-americana-reforma-ciudad-de-mexico/

#### ORGANISING SECRETARIAT

COLEGIO MEXICANO DE REUMATOLOGÍA AC

Paseo del Río No. 157 Col. Barrio Oxtopulco Universidad, Alcaldía

Coyoacán, Cd. México, CP 04318

Email: america@reumatologia.org.mx Tel: +55 5662 5983; +55 6382 9894

#### COURSE OPENING

Monday, September 2, 2024 at 9:00

#### COURSE CLOSING

Wednesday, September 4, 2024 at 14:00

#### **PARTICIPANTS**

40 participants.

This course is recommended for participants with little or no experience in musculoskeletal ultrasound. Successful completion of the EULAR online Introductory Ultrasound is highly recommended before participating in a EULAR basic-level course and mandatory for successfully completing the EULAR Competency Assessment in MSUS in Rheumatology – Level 1. For more details, please follow this link: https://esor.eular.org/course/view.php?id=94.

#### OFFICIAL LANGUAGE

English

#### DESCRIPTION

The course will consist of lectures and hands-on scanning in small groups (4-5 participants per tutor and ultrasound machine) and will focus on learning ultrasound physics, settings and artefacts, image acquisition, normal sonoanatomy, MSUS standardised examination techniques and ultrasound findings in basic musculoskeletal pathology. It will be conducted following the recommendations for the content and conduct of EULAR Musculoskeletal Ultrasound Courses (www.eular.org). The faculty will consist of international teachers highly experienced in MSUS in rheumatology.

The course is supported by COLEGIO MEXICANO DE REUMATOLOGÍA AC

#### REGISTRATION

Registration is intended to be opened for all EULAR member countries.

# Applications should be e-mailed to

America Barrios.

Colegio Mexicano de Reumatología, A.C. Paseo del Río No. 157 Col. Barrio Oxtopulco Universidad, Alcaldía Coyoacán, Cd. México, CP 04318.

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**Payment** instructions will be given by COLEGIO MEXICANO DE REUMATOLOGÍA

#### FACULTY

Juan Carlos Acebes (UK) Ana Laura Álvarez del Castillo (México) George Bruyn (Netherlands) Mario Chávez (México)

Georgios Filippou (Italy)

Emilio Filippucci (Italy)

Citlallyc Gómez-Ruiz (México)

Ingrid Möller (Spain)

Esperanza Naredo (Spain)

Carlos Pineda (México)

Fernando Saraiva (Portugal)

Lene Terslev (Denmark)

### **HANDS ON TUTORS**

Juan Carlos Acebes (UK)

Ana Laura Álvarez del Castillo (México)

George Bruyn (Netherlands)

Mario Chávez (México)

Georgios Filippou (Italy)

Emilio Filippucci (Italy)

Citlallyc Gómez-Ruiz (México)

Ana Cecilia Lozada (México)

Ingrid Möller (Spain)

Esperanza Naredo (Spain)

Diana Marcela Padilla (México)

Carlos Pineda (México)

Fernando Saraiva (Portugal)

Lene Terslev (Denmark)

Jessica Villaseñor (México)

# **LEARNING OBJECTIVES**

- To know the application, indications, and limitations of MSUS in rheumatology.
- To know the ultrasound physics and technology.
- To identify the sonographic pattern of the different musculoskeletal tissues.
- To recognize musculoskeletal artefact and pitfalls.
- To learn how to hold the probe and to optimize B-mode settings of the ultrasound equipment and acquire ultrasound images.
- To identify normal sonographic anatomy of each major anatomic area (i.e. shoulder, elbow, wrist and hand, hip, knee, ankle and foot).
- To learn the systematic standardised scanning technique for each major anatomic area (i.e. shoulder, elbow, wrist and hand, hip, knee, ankle and foot).
- To identify basic musculoskeletal abnormalities (e.g. synovitis, tenosynovitis, enthesopathy/enthesitis, bursitis, tendon lesions, and bone abnormalities).
- To document images and to report ultrasound findings and diagnosis.

# COURSE CONTENT

- Application, indications and limitations of MSUS.
- US physics, settings, artefacts and pitfalls
- Principles of MSUS examination
- Ultrasound pattern of the musculoskeletal tissues.
- Sonoanatomy and standard ultrasound scans of the shoulder, elbow, wrist and hand, hip, knee, ankle and foot.
- Sonographic identification of the principal musculoskeletal lesions and abnormalities and diagnosis of the most frequent musculoskeletal pathologies in rheumatology.
- Image documentation and reporting of US findings and diagnosis

# **COURSE CERTIFICATION**

A certificate of attendance will be supplied.

# COURSE EVALUATION

The course will be evaluated with respect to educational quality and content, value in clinical practice, organisation and venue.

# REGISTRATION FEE

We offer two options for registration fee:

Option A; course, educational material, accommodation (3 nights in hotel, breakfast included), lunches, dinners and coffee breaks- Fee: 1,150 EUR

Option B; course, educational material, lunches and coffee breaks- Fee: 850 EUR

# PROGRAMME Monday 2 September, 2024

8.00 - 9.00	Registration	
9.00-9.15	Welcome – Objectives and content of the course. EULAR Competency assessment in musculoskeletal ultrasound (MSUS)	M. Chávez, E. Naredo, I. Möller, AL. Álvarez, C. Pineda
9.15-9.40	History and development of MSUS. Ultrasound physics and techniques. Technical characteristics of ultrasound equipments appropriate for rheumatic and musculoskeletal diseases	M. Chávez
9.40-10.10	MSUS pattern of normal tissues and anatomical structures (i.e. tendons, muscles, ligaments, nerves, articular cartilage, joint space, joint recesses, joint capsules, and bone profile)	I. Möller
10.10-10.40	Ultrasound machine settings (B-mode), image optimization, probe handling, and image acquisition	L. Terslev
10.40-11.00	Artefacts, pitfalls and limitations of MSUS	AL. Álvarez
11.00 -11.30	Coffee break	
11.30 -13.30	Workshop (models): Holding the probe and handling the ultrasound machine setting. Normal musculoskeletal tissues and Sonoanatomy	All tutors
13.30 -14.30	Lunch	
14.30-15.00	Clinical applications of MSUS in rheumatic and musculoskeletal diseases	E. Filippucci
15.00-15.30	Basic MSUS abnormalities: definitions and findings (i.e. joint effusion and synovial hypertrophy, tenosynovitis, enthesopathy, tendon rupture, bursitis, calcifications, bone abnormalities, cartilage damage)	E. Naredo
15.30-16.00	Standardised scanning of the Elbow. Basic pathological findings	JC. Acebes
16.00-16.30	Coffee break	
16.30-18.30	Workshop. Supervised standardised scanning of the elbow (models). Basic pathological findings (patients)	All tutors
20.00	Dinner	

# Tuesday 3 September, 2024

9.00-9.30	Standardised scanning of the Wrist and Hand. Basic pathological findings	G. Bruyn
9.30-11.00	Workshop. Supervised standardised scanning of the wrist and hand (models). Basic pathological findings (patients)	All tutors
11.0-11.30	Coffee break	
11.30-12.00	Standardised scanning of the Hip. Basic pathological findings	I. Möller
12.00-13.30	<b>Workshop</b> . Supervised standardised scanning of <b>the hip</b> (models). Basic pathological findings (patients).	All tutors
13.30-14.30	Lunch	
14.30-15.00	Standardised scanning of the Knee. Basic pathological findings	F. Saraiva
15.00-17.00	<b>Workshop</b> . Supervised standardised scanning of <b>the knee</b> (models). Basic pathological findings (patients)	All tutors
17.00-17.30	Coffee break	
17.30-18.00	Standardised scanning of the Shoulder. Basic pathological findings	AL. Álvarez
18.00-20.00	Workshop. Supervised standardised scanning of the shoulder (models).  Basic pathological findings (patients)	All tutors
20.30	Dinner	

# Wednesday 4 September, 2024

9.00-09.30	Standardised scanning of the Ankle and Foot. Basic pathological findings	G. Filippou
9.30-11.30	Workshop. Supervised standardised scanning of the ankle and foot (models). Basic pathological findings (patients).	All tutors
11.30-12.00	Coffee break	
12.00-12.30	Education in MSUS	C. Pineda
12.30-13.00	Reporting MSUS findings and diagnosis. (Technical aspects) and (Clinical aspects)	C. Gómez-Ruiz
13.00-13.15	Closing Remarks	M. Chávez, E. Naredo, I. Möller, AL. Álvarez, C. Pineda

Total course duration: 20 h (excluding lunch and coffee break time)

Total time for theoretical training: 7 h

Total time for practical training: 13 h