

Scientific Programme

(preliminary version)

Musculoskeletal Sonography Course for Rheumatologists Warszawa 2010

September 28th - October 01st, 2010
Warszawa, Poland



under scientific patronage of the
European League Against Rheumatism

eular



Polish Society
of Rheumatology



Military Institute of Medicine
Poland

Organization Committee

- **Management of the Course:**

 - **Executive Director of the Course**

 - Artur Bachta (Poland)

 - **Head of the Scientific Board**

 - Marcin Szkudlarek (Denmark)

- **Honorary Members of the Organization Committee:**

 - Grzegorz Gielerak (Poland)

 - director of the Military Institute of Medicine, Poland

 - Witold Tłustochowicz (Poland)

 - president of the Polish Society of Rheumatology

- **Institutional organizer:**

 - Military Institute of Medicine, Poland

- **Scientific Patronage:**

 - European League Against Rheumatism (EULAR)

 - Polish Society of Rheumatology (PTR)

Scientific Board

Artur Bachta (Poland)
Peter Balint (Hungary)
Hilde Berner Hammer (Norway)
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Marcin Szkudlarek (Denmark)
Lene Terslev (Denmark)
Søren Torp-Pedersen (Denmark)
Debbie Turner (United Kingdom)

General Information

- **Course dates**

opening: Tuesday, September 28th 2010, 14:30 CET
closing: Friday, October 1st 2010, 13:00 CET

- **Course level according to EULAR guidelines[#]:**

- **Basic** - 30 participants
- **Intermediate** - 30 participants

- **Official language**

English

- **Congress venue**

Hyatt Regency Warsaw ****
ul. Belwederska 23
00-761, Warsaw, Poland
www.warsaw.regency.hyatt.com

- **Executive Director of the Course and Secretariat**

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[#] Eular Ultrasound Group: "Recommendations for the content and conduct of European League Against Rheumatism (EULAR) Musculoskeletal Ultrasound Courses"
Ann Rheum Dis. 2008;67(7):1017-22

Basic Level Course

Education objectives:

- Application, indications and limitations of MSUS in rheumatology
- Ultrasound physics and technology
- Sonographic pattern of the different musculoskeletal tissues.
- MSUS artifacts and pitfalls
- Standard sonographic scans of the shoulder, elbow, wrist and hand, hip, knee, ankle and foot
- Holding the probe and optimizing the grey-scale settings of the sonographic system
- Image documentation
- Reporting ultrasound findings and diagnosis
- Finding basic ultrasound pathologies: joint synovitis, joint effusion, synovial hypertrophy, bursitis, tenosynovitis
- Basics of Colour and Power Doppler application to detect synovial and enthesal inflammation

Workshop objectives:

- Practical handling of the ultrasound system settings.
- Supervised identification of the musculoskeletal system tissues and structures
- Supervised standard scanning of the shoulder, elbow, wrist, hand, hip, knee, ankle and foot
- Supervised identification of the basic musculoskeletal lesions in patients with rheumatological disorders.
- Supervised assessment of the basic sonographic symptoms of inflammation severity in grades

Timetable:

Musculoskeletal Sonography Course for Rheumatologists, Basic Level, consists of 20 hours of activities within 4 days:

- 7 hrs (35% of total time) for lectures
- 13 hrs (65% of total time) for supervised hands-on scanning of models and/or patients with musculoskeletal disorders

Tuesday, September 28th, 2010

12:00 - 14:30

Registration.

14:30 - 15:15

Opening ceremony and inaugural lecture (basic and intermediate level together).

1. Opening ceremony

Invitation on behalf of organizing committee, introduction of scientific board and tutors (**Artur Bachta, Marcin Szkudlarek**; 15 min)

2. Present and perspectives of the musculoskeletal ultrasonography in rheumatology. (**Marcin Szkudlarek**; 30 min)

15:15 - 15:30

Coffee break (15 min)

15:30 - 17:10

Theory session I

What should be known about MSUS before starting of scanning.

1. Physical background of ultrasonography. Role of settings in adjusting of image quality. How to choose the correct ultrasound system for the rheumatology purposes. (**Juhani Koski**; 40 min)

2. Ultrasound image of particular musculoskeletal tissues (muscles, tendons, ligaments, vessels). Artefacts in MSUS. Part I. (**Hilde Berner Hammer**; 30 min).

3. Ultrasound image of particular musculoskeletal tissues (joint capsule, synovial membrane, synovial bursas, synovial recesses, synovial fluid, nerves, cartilages, bone outlines). Artefacts in MSUS. Part II (**Nemanja Damjanov**; 30 min)

17:10 - 19:10

Practice session I

First contact with the ultrasound scanner. (120 min)

Scanning supervised by tutors:

- How to deal with ultrasound image.
- Role of settings in adjusting image quality.
- Normal ultrasound image of musculoskeletal structures.
- Technique of measurements and documentation in MSUS.

19:30 - 20:30

Dinner

Wednesday, September 29th, 2010

7:00 - 8:00

Breakfast

8:30 - 09:10

Theory session II

Knee

Sonoanatomy of the knee. Basic pathologies on ultrasonography.
(Beata Nowak; 40 min)

09:10 - 10:10

Practice session II

Scanning technique: knee.

Scanning supervised by tutors: standard positions, normal sonoanatomy of the knee. (60min).

09:10 - 10:30

Coffee break (20 min)

10:30 - 11:10

Theory session III

Shoulder

Sonoanatomy of the shoulder. Basic pathologies on ultrasonography
(Søren Torp-Pedersen; 40 min)

11:10-12:10

Practice session III

Scanning technique: shoulder.

Scanning supervised by tutors: standard positions, normal sonoanatomy of the shoulder. (60min)

12:30 - 14:00

Lunch

Wednesday, September 29th, 2010

14:00 - 14:40

Theory session IV

Elbow and hip.

Sonoanatomy of the hip and elbow. Basic pathologies on ultrasonography (Luca Di Geso; 40 min).

14:40 - 15:40

Practice session IV

Scanning technique: hip and elbow.

Scanning supervised by tutors: standard positions, normal sonoanatomy of the hip and elbow (60 min).

15:40 - 16:00

Coffee break (20 min)

16:00 - 16:40

Theory session V

Hand and wrist.

Sonoanatomy of the hand and wrist. Basic pathologies on ultrasonography. (Anna Ciechomska; 40 min).

16:40 - 17:10

Theory session VI

Foot and ankle.

Sonoanatomy of the foot and ankle. Basic pathologies on ultrasonography. (Debbie Turner; 30 min)

17:10- 19:10

Practice session V & Practice session VI

Scanning technique: hand and wrist & Scanning technique: foot and ankle.

1. Scanning supervised by tutors: standard positions, normal sonoanatomy of the hand and wrist. (60min)

2. Scanning supervised by tutors: standard positions, normal sonoanatomy of the foot and ankle. (60min)

19:30 - 21:00

Dinner

Thursday, September 30th, 2010

7:00 - 8:00

Breakfast

8:30 - 10:20

Theory session VII

Synovitis in B-mode and Power/Color Doppler Ultrasonography

1. Swelling of the synovial tissue and joint effusion. Evaluation of severity in grades. (**Maria Antonietta D'Agostino**; 30min)
2. Vascularity - role of Power/Color Doppler Ultrasonography in the diagnostics of arthritis and evaluation of arthritis activity. (**Lene Terslev**; 40min)
3. Tenosynovitis, tendonitis and enthesopathy on ultrasonography. (**Peter Balint**; 40min)

10:20 - 10:30

Coffee break (10 min)

10:30 - 12:30

Practice session VII. Part One.

Scanning upper extremity of patients with joint inflammation.

Scanning supervised by tutors: upper extremity. Assessment of joint structures and synovitis activity on B-mode and CD/PDUS (2 x 60 min).

12:30 - 14:00

Lunch.

14:00 - 16:00

Practice session VII. Part Two.

Scanning lower extremity of patients with joint inflammation.

Scanning supervised by tutors: lower extremity. Assessment of joint structures and synovitis activity on B-mode and CD/PDUS (2 x 60 min).

16:00 - 16:15

Coffee break (10 min)

Thursday, September 30th, 2010

16:15 - 16:45

Theory session VIII

Osteoarthritis.

Sonographic features of osteoarthritis. (Wolfgang Schmidt; 30min)

16:45 - 17:45

Practice session VIII

Osteoarthritis

Scanning supervised by tutors: scanning of patients with osteoarthritis. (60 min)

19:00 - 22:30

Gala dinner outside the Congress Center

Friday, October 1st, 2010

07:00 - 08:00

Breakfast

08:30 - 09:10

Theory session IX

Nerves and cartilages.

Scanning technique of nerves and cartilages. Basic pathologies in rheumatic patients. (**Esperanza Naredo**; 30 min).

09:10 - 10:10

Practice session IX

Scanning technique: nerves and cartilage.

Scanning supervised by tutors: scanning of nerves and cartilage (60 min).

10:10 - 10:30

Coffee break (10 min)

10:30 - 13:00

Closing ceremony (basic and intermediate level together)

1. Ultrasonography in daily rheumatology practice - open discussion.
2. Quiz: recognizing of normal musculoskeletal structures and basic rheumatology pathologies.
3. Issuing of certificates.
4. Official closing of the course.

Intermediate Level Course

Education objectives:

- Colour and Power Doppler physics and technology
- Application, indications and limitations of Colour and Power Doppler in rheumatology.
- Definition, detection and quantification of synovitis, effusion, erosions, tendinopathies, tenosynovitis, entesitis and degenerative lesions on ultrasound
- Role of ultrasound in diagnosis and monitoring of metabolic arthritis
- Basics of ultrasound picture of tendons' and muscles' traumatic lesions
- Standards of safety of ultrasound-guided punctures and injections sonographic system
- Image documentation
- Reporting ultrasound findings and diagnosis, when monitoring the patients
- Role of ultrasound in monitoring patients with inflammatory joint diseases. Usefulness of grading of sonographic lesions.

Workshop objectives:

- Optimisation of ultrasound settings and use of Colour and Power Doppler technology.
- Scanning patients with inflammatory and degenerative joint disease focused on detection of synovitis, effusion, erosions, tendinopathies, tenosynovitis, entesitis and degenerative lesions.
- Supervised scanning of particular joints of patients with inflammatory and degenerative joint diseases, searching for pathologies,
- How to differentiate inflammatory lesions and traumatic lesions
- Technique of ultrasound-guided punctures and injections.

Timetable:

Musculoskeletal Sonography Course for Rheumatologists, Intermediate Level, consists of 20 hours of activities within 4 days:

- 6,5 hrs (35% of total time) for lectures
- 13,5 hrs (65% of total time) for supervised hand-on scanning of patients with musculoskeletal disorders.

Tuesday, September 28th, 2010

12:00 - 14:30

Registration.

14:30 - 15:15

Opening ceremony and inaugural lecture (basic and advanced level together).

1. Opening ceremony

Invitation on behalf of organizing committee, introduction of scientific board and tutors. (**Artur Bachtá, Marcin Szkudlarek**; 15 min)

2. Present and perspectives of the musculoskeletal ultrasonography in rheumatology. (**Marcin Szkudlarek**; 30 min)

15:15 - 15:30

Coffee break (15 min)

15:30 - 17:10

Theory session I

Practical use of ultrasound technology.

1. Capabilities of modern ultrasound equipment used for musculoskeletal scanning. Recent advancements in ultrasound technology. (**Wolfgang Schmidt**; 30 min).

2. Colour and Power Doppler physics and technology. Colour and Power Doppler settings and its optimisation. Common Colour and Power Doppler artefacts. (**Søren Torp-Pedersen**; 40 min)

3. Application, indications and limitations of Colour and Power Doppler in rheumatology. (**Lene Terslev**; 30 min).

17:10 - 19:10

Practice session I

Optimisation of ultrasound settings and use of Colour and Power Doppler technology. (120 min)

Scanning supervised by tutors:

- Role of settings in adjusting image quality.
- Correct acquisition of particular musculoskeletal structures.
- Practical handling of Colour and Power Doppler ultrasound machine settings
- How to detect and avoid B-mode and Colour/Power Doppler artifacts

19:30 - 20:30

Dinner

Wednesday, September 29th, 2010

7:00 - 8:00

Breakfast

8:30 - 09:10

Theory session II

Synovitis

Definition, detection and quantification of synovitis on ultrasound.
(Peter Balint; 40 min)

09:10 - 09:50

Theory session III

Bone abnormalities

Definition, detection and quantification of erosions and other bone abnormalities on ultrasound. (Marcin Szkudlarek; 40 min)

09:50 - 10:10

Coffee break (20 min)

10:10 - 12:10

Practice session II and III

Scanning supervised by tutors: scanning patients with inflammatory and degenerative joint diseases focused on synovitis and bone abnormalities. (2 x 60min).

12:30 - 14:00

Lunch

Wednesday, September 29th, 2010

14:00 - 14:40

Theory session IV

Tendinopathies and tenosynovitis.

Definition, detection and quantification of tendinopathies and tenosynovitis on ultrasound. (**Esperanza Naredo**; 40 min).

14:40 - 15:20

Theory session V

Enthesitis and enthesopathy.

Definition, detection and quantification of enthesitis and enthesopathy on ultrasound. (**Maria Antonietta D'Agostino**; 40 min).

15:20 - 17:20

Practice session IV and V

Scanning supervised by tutors: scanning patients with inflammatory and degenerative joint diseases focused on tendons and enthesal lesions. (2 x 60min).

17:20 - 17:40

Coffee break (20 min)

17:40 - 18:10

Theory session VI

Metabolic arthritis.

Pathologies related to metabolic arthritis that can be detected with ultrasound. Role of ultrasound in diagnosis and monitoring of metabolic arthritis. (**Luca Di Geso**; 30 min)

18:10- 19:10

Practice session VI

Scanning supervised by tutors: scanning patients with metabolic joint diseases. (60min).

19:30 - 21:00

Dinner

Thursday, September 30th, 2010

7:00 - 8:00

Breakfast

8:30 - 10:10

Theory session VII

Scanning of joints with inflammatory and degenerative lesions. Part One.

1. Scanning of hand and wrist with inflammatory and degenerative lesions. (Hilde Berner Hammer; 40min)
2. Scanning of ankle and foot with inflammatory and degenerative lesions. (Debbie Turner; 30min)
3. Scanning of knee with inflammatory and degenerative lesions (Małgorzata Serafin-Król; 30min)

10:10 - 10:30

Coffee break (20 min)

10:30 - 12:30

Practice session VII.

Scanning supervised by tutors: scanning patients with inflammatory and degenerative joint diseases focused on hand, wrist, ankle, foot and knee. (2 x 60min).

12:30 - 14:00

Lunch.

14:00 - 15:00

Theory session VIII

Scanning of joints with inflammatory and degenerative lesions. Part Two.

1. Scanning of shoulder with inflammatory and degenerative lesions. (Artur Bachta; 30min)
2. Scanning of elbow and hip with inflammatory and degenerative lesions. (Nemanja Damjanov; 30 min)

Thursday, September 30th, 2010

15:00 - 15:40

Theory session IX.

Tendons and muscles traumatic lesions.

Basics of ultrasound picture of tendons' and muscles' traumatic lesions.
How to differentiate inflammatory lesions and traumatic lesions.
(Zbigniew Czyrny; 40min).

15:40 - 16:00

Coffee break (20 min)

16:00 - 18:00

Practice session VIII and IX

Scanning supervised by tutors: scanning patients with inflammatory and degenerative joint diseases focused on shoulder, elbow and hip. Searching for traumatic lesions of musculoskeletal system. (2 x 60min).

19:00 - 22:30

Gala dinner outside the Congress Center

Friday, October 1st, 2010

07:00 - 08:00

Breakfast

08:30 - 09:10

Theory session X

Ultrasound-guided punctures and injections.

Standards of safety of ultrasound-guided punctures and injections.

Technique of ultrasound-guided punctures and injections.

(Juhani Koski; 40 min).

09:10 - 10:10

Practice session X

Scanning supervised by tutors: ultrasound-guided punctures and injections using phantoms. (60min).

10:10 - 10:30

Coffee break (10 min)

10:30 - 13:00

Closing ceremony

1. Ultrasonography in daily rheumatology practice - open discussion.
2. Quiz: recognizing of normal musculoskeletal structures and basic rheumatology pathologies.
3. Issuing of certificates.
4. Official closing of the course.

Useful information

- **Congress venue:**
Hyatt Regency Warsaw ****
ul. Belwederska 23
00-761, Warsaw, Poland
phone: +48 22 558 1234, fax: +48 22 558 1235
email: warsaw.regency@hyatt.com
www: warsaw.regency.hyatt.com
- **How to get to the congress venue from the Warsaw Fryderyk Chopin Airport:**
By bus - take the line 188 at the airport,
 - get off at the 18th stop named "05: Al.Armi Ludowej"
 - cross the street to get the stop named "01: Al.Ujazdowskie"
 - take the line 116 or 166 or 180 or 195
 - get off at the 2nd stop named "01: ul. Belwederska"**By taxi** - estimated cost ~15€ (one way)
- **How to get to the congress venue from the Warsaw-Central Railway Station:**
By bus - take the line 119 or 131 at the railway station,
 - get off at the 7th stop named "01: ul. Belwederska"**By taxi** - estimated cost ~10€ (one way)
- **Emergency calls:**
Emergency phone: +48 112
Police for foreign tourists: +48 800 200 300
Ambulance: +48 22 525 14 05
Municipal police: +48 22 840 00 16
- **Useful calls:**
Warsaw Fryderyk Chopin Airport - information desk: +48 22 650 42 20
Flight information (LOT): +48 801 703 703 or +48 22 9572
Railway information (PKP): +48 22 94 36
Municipal mass transit information (ZTM): +48 22 9484
Warsaw Tourist Information Centre: +48 22 194 31

