

Modified EFSUMB competency sheets for rheumatologist that perform musculoskeletal US

Level 1

Level 1: Theoretical Module

Attendance in an intermediate course of at least 2 days (10 hours) including:

- Ultrasound physics and instrumentation, ultrasound techniques and documentation
- Normal musculoskeletal anatomy, normal musculoskeletal ultrasound findings, common pathological ultrasound findings in the musculoskeletal system.

Level 1: Practical Training

Level 1 competence requires:

- To obtain level 1 status it is recommended that the trainee should perform a minimum of 300 examinations under supervision within a year.
- Examinations should encompass the full range of conditions listed in the competency assessment sheet - level 1.
- A log book (or an illustrated log book) should be kept by the trainee, listing the number and type of examinations. Supervision of half of the 300 examinations can be achieved with approval of examinations in an illustrated log book.
- The trainee should be supervised by a level 2 or 3 US examiner.
- During the course of training a competency assessment sheet should be completed and signed by the supervisor, as this will determine in which area(s) the trainee can practise independently.
- To maintain level 1 status the practitioner should perform at least 300 examinations each year.

Level 1: Competencies to be acquired

At the end of training the trainee should be able to:

- Perform common musculoskeletal ultrasound examinations (shoulder, elbow, wrist/hand, hip, knee, ankle/foot and common muscles) systematically, accurately, safely and with proper report and documentation.
- Differentiate normal and pathological findings.
- Perform dynamic examinations.
- Recognise when referral for a second opinion is indicated (e.g. any diagnostic doubt, soft tissue tumours).
- Diagnose common abnormal ultrasound findings in shoulder, elbow, wrist/hand, hip, knee, ankle/foot and common muscles (e.g. effusion and synovitis, bursitis and cysts, tendon tears and tendinopathy, entesopathy, common muscle and bone pathology) (see competency assessment sheet - level 1).

Level 2

Level 2: Theoretical Module

Attendance in one or more relevant advanced courses or congresses with a total of at least 3 days (18 hours).

Level 2: Practical Training

Level 2 competence requires:

- To have achieved level 1 competence.
- To have regular ultrasound clinics at level 1 and perform at least 500 examinations under supervision within a year.
- Supervision by a level 3 practitioner or someone who has achieved level 2 competence and has at least 2 years of experience at that level.
- To be able to recognise and correctly diagnose almost all musculoskeletal pathological conditions (or all conditions within a specific area of a musculoskeletal pathology).
- To maintain level 2 status the practitioner should perform at least 500 examinations each year.

Level 2: Competencies to be acquired

- To accept and manage referrals from level 1 practitioners.
- To have knowledge of new ultrasound modalities.
- To teach ultrasound to trainees and to level 1 practitioners.
- To conduct some research (clinical or fundamental) in musculoskeletal ultrasound.
- To recognize and correctly diagnose almost all pathology in the shoulder, elbow, wrist/hand, hip, knee, ankle/foot, muscles, bones and nerves (see competency assessment sheet - level 2).
- To perform basic, non-complex musculoskeletal US-guided interventions (e.g. aspirations and injections).

Level 3

Level 3: Theoretical Module

Attendance in at least two advanced relevant courses or congresses with a total of at least 6 days during 2 calendar years.

Level 3: Practical Training

Level 3 competence requires:

- To have achieved level 2 competence.
- To have regular ultrasound clinics at level 2 for at least two years (at least 500 examinations per year).
- To be occupied mainly with musculoskeletal ultrasound.
- To perform (or have knowledge about) specialised musculoskeletal ultrasound examinations
- To perform advanced US-guided interventional procedures.

Level 3: Competencies to be acquired

- To accept and manage tertiary referrals from level 1 and 2 practitioners.
- To perform specialised musculoskeletal ultrasound.
- To perform all sorts of musculoskeletal US-guided interventions.
- To conduct substantial research (clinical or fundamental) in the field of musculoskeletal ultrasound.
- To teach musculoskeletal ultrasound to trainees and practitioners at all levels.
- To be aware of and to pursue developments in musculoskeletal ultrasound.

Maintenance of Skills

Having been assessed as competent to practice there will be a need for continued medical education

and maintenance of practical skills. Recommended numbers of examinations to be performed annually to maintain skills at each level are given in the text.

Practitioners should:

- Include musculoskeletal ultrasound in their ongoing continued medical education (CME) and continued professional development (CPD).
- Audit their practice.
- Participate in multidisciplinary meetings.
- Keep up to date with relevant literature.