The future of the past is the present. The challenge to educate Nuclear Medicine Specialist in present time. The important role of UEMS Section and European Board of Nuclear Medicine.

Savvas Frangos, Roland Hustinx, Ariane Boubaker, Teresio Varetto, John O. Prior, Mirzaei Siroos, Lorenzo Maffioli

UEMS Section and European Board of Nuclear Medicine

The European Union of Medical Specialists, UEMS (Union Européenne des Médecins Spécialistes) was established in 1958 as the representative organization for medical specialists of the European Union (EU)/European Economic Area (EEA) countries. (1) With a current membership of 37 countries, it is the representative organization of the National Associations of Medical Specialists in the European Union and its associated countries. Its structure consists of a Council responsible for and working through 43 Specialist Sections and their European Boards, addressing specialty-specific training and incorporating representatives from those responsible for training (Medical Societies, Colleges and Universities). One of the roles of the UEMS is the promotion and harmonization of the highest level of training of medical specialists within and beyond the EU/EEA. It must meet the standards and criteria laid down by the appropriate National Training Authority and by the individual training programs and be in accordance with the recommendations of the UEMS Charter on Training of Medical Specialists, and Chapter 6 thereof. Postgraduate curricula should also refer to the WFME (World Federation for Medical Education) Global Standards (2) for Quality Improvement in Postgraduate Medical Education adopted in 2002.

The formal recognition of Nuclear Medicine as a separate medical specialty within the UEMS was finally achieved by Desmond Croft in 1989 (3), after eight long years of delicate negotiations. The Section of Nuclear Medicine appeared in 1990 within the UEMS, and the European Board of Nuclear Medicine (EBNM) was created in 1993. In 2003 the UEMS Section and the European Board of Nuclear Medicine merged “in order to unify and facilitate activities, mainly to improve and harmonize the training of nuclear medicine throughout European countries to the highest possible standards”.

The UEMS Section and European Board of Nuclear Medicine consist from 4 committees: Education & Syllabus, Accreditation of Nuclear Medicine Departments and Training Centers, Continuing Medical Education Accreditation and Fellowship Examination.

UEMS/EBNM Education & Syllabus Committee

According to the Chapter 6 (1) the Education & Syllabus Committee role is to create Training Requirements for the Specialty of Nuclear Medicine European which comply with the Standards of Postgraduate Medical Specialist Training. These requirements follows the Directive 2005/36/EC of the European Parliament and of the Council of EU which concerns the recognition of professional qualifications (4) A short version was published in the EJNMMI (5) and the complete document was approved by the Council meeting of UEMS in Israel on April 28, 2017 and published at UEMS web site. An important aspect of the role of the UEMS is to define the minimum training period for each specialty as 4 years. (6)

The Syllabus is organized in 3 sections. The training requirements for trainees list and describe the content of training and learning outcome in every field relevant to the practice of nuclear medicine. This includes the theoretical knowledge, i.e. the scientific bases of NM, and the clinical aspects of NM including the diagnostic imaging and the therapeutic applications; the practical and clinical skills and the competences required in order to practice NM in the Union. This section also describes the organization of training in terms of schedule, curriculum, assessment and evaluation. A second section deals with the training requirements for trainers, i.e. the process for recognition as trainer and the quality management for trainers. A third section relates to the training requirements for training institutions.
which should both fulfill the quantitative criteria proposed in the first section and the criteria. required for their national accreditation.

Nuclear Medicine is a rapidly change specialty. To maintain the high standard of Education the Education & Syllabus Committee in close cooperation with European Association of Nuclear Medicine (EANM) is working in the new Version of Training Requirements.

**UEMS/EBNM Accreditation of Nuclear Medicine Departments and Training Centers Committee**

To facilitate education, centers should have the capacity for performing the essential diagnostics and therapeutical procedures. Therefore, the Committee for Accreditation of Nuclear Medicine Departments and Nuclear Medicine Training Centers plays a key role. It aims at implementing an accreditation system across Europe in nuclear medicine departments leading to the granting by UEMS/EBNM of a dedicated certificate valid for 5 years. Clinical audit is required by the Council Directive 97/43 EURATOM (7) and is the basis for accreditation. It was created 20 years ago (1997), first as a task group and the a permanent UEMS/EBNM Committee (2004). Since 2012, both accreditation as Nuclear Medicine Department and Nuclear Medicine Training Center were merged into one Committee and more than 60 nuclear medicine departments across Europe have been accredited so far. A list of the currently accredited centers is available on our website (www.uems.eanm.org).

The benefits of accreditation are the improvement of patient care by standardizing the quality in nuclear medicine (8). Similarly, the accreditation as Training Center implies the fulfilling of minimum criteria as defined by Syllabus Committee of UEMS/EBNM for teaching in nuclear medicine (physicians, radiopharmacists, physicists, technologists, etc.). If a training center is not performing the full range of diagnostic and therapeutic procedures described in the UEMS/EBNM syllabus, it can only be accredited if it has a formal agreement with another accredited center to allow trainee to become competent in all methods.

A CD-ROM with accreditation material according to ISO9001:2008 was developed that is freely downloadable from our website (http://uems.eanm.org): However, alternate certification pathways exist, such as the IAEA QUANUM (https://humanhealth.iaea.org/HHW/NuclearMedicine) or through the national societies’ clinical audits, which are less time-consuming than a full ISO9001 certification. Re-accreditation is mandatory every 5 years.

**UEMS/EBNM Continuing Medical Education Accreditation Committee**

It is also important the Continuing Medical Education (CME) and the Committee for Continuing Medical Education Accreditation plays a vital role. CME is fundamental for good medical practice and for delivering high-quality patient care. According the UEMS Charter on CME (1994, Chapter IV, art. 6), CME represents a moral and ethical commitment for each medical specialist to ensure that the clinical care they practice is safe and based on valid scientific evidence. The UEMS/EBNM established in 2000 the CME/CPD Accreditation Committee as the scientific and technical body of EBNM for the evaluation and accreditation of nuclear medicine CME/CPD activities in Europe. The EBNM/CME accreditation committee aims to: (i) provide high quality standards of scientific and educational content of CME/CPD activities in nuclear medicine; (ii) to ensure transparency and independence of CME/CPD programs from the influence of the healthcare industry; and (iii) to assist national and international nuclear medicine societies in planning and implementing CME/CPD programs.

The EBNM CME Accreditation Committee is working under the umbrella of the UEMS, following the rules and standards of the European Accreditation Council for Continuing Medical Education (EACCME) — the largest CME/CPD authority in EU, established by UEMS in January 2000 with the goals to harmonize accreditation in the EU and to create the premises for mutual recognition of EACCME credits throughout European countries. To obtain EBNM/EACCME Accreditation for an educational event has a great added value. EACCME Credits are recognized in most EU Countries.
and in the USA (through the AMA), and in Canada (the Royal Colleges of Physicians and Surgeons of Canada). They represent a guarantee of quality for patients, employers and regulatory bodies. Moreover, in this era of cross-border healthcare with a pan-European right to treatment for patients, competitive healthcare markets, cross-border mobility of medical specialists, increasing need to improve skills and competencies and to gain professional qualifications recognized throughout Europe, EBNM/EACCME credits represent the best measurable means for nuclear medicine specialists to demonstrate that they continue to meet criteria to provide a high-quality care to patients. The accreditation process is completely on-line at www.eaccme.uems.eu. The accreditation portfolio is very complete including all forms of modern educational activities to be accredited (congresses, conferences, courses, seminars, webinars, workshop, e-learning material like e-learning modules, apps, web platforms, web-libraries etc.) recognized (EACCME recognized activities like publishing articles, reviewing articles, be examiner in a UEMS exam).

**UEMS/EBNM Fellowship Examination Committee**

The Fellowship Examination Committee plays an important in demonstrating a sufficient level knowledge in nuclear medicine to practice as an independent European nuclear medicine specialist. This is done by a common examination, which is presently done on an individual and voluntary basis. The Fellowship Examination of the European Board of Nuclear Medicine (FEBNM) has been introduced in 1993. According to the Glasgow declaration of UEMS in 2007 (9), this examination is open to candidates from UEMS and non-UEMS countries. Its main objective is to achieve and maintain the highest standards in Nuclear Medicine. Applicants should be acknowledged as specialists in their country and have to provide proof of education and currently-valid post-graduate CME as well. Furthermore, they should refer to the published European Training Requirements in Nuclear Medicine with respect to the number of procedures in all fields including therapy, and hybrid imaging. Eligibility is checked by the FEBNM examination committee. The FEBNM examination is organized twice a year, one in Vienna in spring, one linked to the Annual Congress of the EANM in fall. On the first day, a preparation session is offered to all candidates preceding the written part. It is mostly dedicated to help them with respect to the form of the examination and the knowledge of the environment and examiners. It is well attended and very much appreciated, followed by a short break and the 3-hour 140 question MCQ examination. Only candidates successful at the written part are eligible for the oral test. On the next day a 30-45 minutes oral test aims at evaluating the skills and attitude of the candidate.

In 2014, the FEBNM Examination committee was invited by the Asian Board of Nuclear Medicine for their first session of their Fellowship Examination. ABNM and EBNM share strong similarities in terms of different levels of medical education, curriculum, and cultural and language differences among the member countries. Based on this first fruitful experience, a collaboration was started and our committee has been invited to participate again with ABNM Fellowship Examination Committee in the near future for assessing the FABNM examination according to the recommendations of continuous assessment of both examinations and examiners.

Despite the fact that the FEBNM Examination is not mandatory, an increasing number of candidates have applied since it was created. Approximately half of them come from non-UEMS countries, mostly from south Asian countries.

UEMS Section and European Board of Nuclear Medicine has an important role shaping the future of Nuclear Medicine not only in Europe by setting the standards of education of young Nuclear Medicine Specialists and by proofing the knowledges of older Specialist if it is according the today standard.

Our knowledge and experience are offered to our Colleagues in the Society of Nuclear Medicine and Molecular Imaging for structure the educational requirements for USA.

**Corresponding Author**
References


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