THE EUROPEAN SOCIETY OF MEDICINE
Medical Research Archives, Volume 14 Issue 1

RESEARCH ARTICLE

A Perspective on Training in Emergency Medicine in Europe: Harmonisation, Challenges and Future Directions

Govender K[1], Capriles F[2], Brown R[3], Butt M.A[4], Spiteri A[5], McNamara R[6]

[1]Consultant in Emergency Medicine, Emergency Department, Portiuncula University Hospital, Ballinasloe, Galway, Republic of Ireland; Adjunct Clinical Associate Professor AT University of Limerick, Hon Senior Lecturer University of Galway
[2]Emeritus Consultant. Servicio de Urgencias. Hospital Universitari Sant Joan de Reus. Tarragona. Spain
[3]Consultant in Emergency Medicine, Emergency Department, St. Mary's Hospital, Imperial College Healthcare, London, United Kingdom
[4]Consultant in Emergency Medicine, Emergency Department, Cavan Monaghan Hospital, Cavan, Republic of Ireland
[5]Emergency Medicine Consultant and Training Programme coordinator for Emergency Medicine, Mater Dei Hospital, Malta
[6]Consultant in Emergency Medicine, St Vincents Hospital and Consultant Lead, National Emergency Medicine Programme, Dublin, Republic of Ireland

OPEN ACCESS

PUBLISHED
31 January 2026

CITATION
Govender, K., et al., 2026. A Perspective on Training in Emergency Medicine in Europe: Harmonisation, Challenges and Future Directions. Medical Research Archives, [online] 14(1).

ISSN
2375-1924

ABSTRACT

Emergency Medicine (EM) in Europe has evolved from a fragmented service into a mature, stand-alone specialty with structured postgraduate training. Despite progress, significant disparities remain in specialty recognition, training duration and structure, subspecialty exposure, educational methods, and assessment across European countries.

To address these gaps, the European Society for Emergency Medicine (EUSEM) and the Union Européenne des Médecins Spécialistes (UEMS) Section and Board for EM developed the European Training Requirements (ETR) for EM, first adopted in 2018 and updated in 2024. The ETR defines minimum standards for training content, duration, organisation, and assessment. It is endorsed by all EUSEM national societies and UEMS specialties, a major milestone in recognising EM as essential to Europe's frontline healthcare.

The European Board Examination in Emergency Medicine (EBEEM) was established as a competency-based pan-European assessment aligned with the ETR, providing an objective measurement of trainee readiness for independent specialist practice.

In this perspective, we review literature, policy documents, and survey data to describe advances and persisting disparities in EM training. We highlight programmes exemplifying alignment with outcome-based models and the ETR framework, illustrating harmonisation pathways while respecting national contexts.

We argue that the ETR and EBEEM, supported by longstanding national frameworks and guidance from the International Federation for Emergency Medicine (IFEM), can drive genuine harmonisation of EM training across Europe. Finally, we describe these developments within global EM evolution, where strengthening of emergency care systems particularly in low- and middle-income countries, offer significant potential to reduce morbidity and mortality.

1. Introduction

Emergency medicine has evolved over the past half-century from an ad hoc hospital service into a maturing global specialty with a distinct body of knowledge, training standards, and professional identity[1]. While this transformation occurred worldwide, Europe's trajectory has been particularly complex, shaped by divergent healthcare structures and varying historical readiness to recognise EM as a standalone specialty[2,3].

The earliest formal EM development began in the United Kingdom, where rising demands for acute unscheduled care in the 1960s-1970s prompted physician-led emergency departments[2,3]. The Casualty Surgeons Association (1967), later the British Association for Accident and Emergency Medicine (1988), led to UK specialty recognition in 1993, with the name changed to Emergency Medicine in 2004[2,3]. Turkey also recognised EM as an independent specialty in 1993 with a 4-year national training programme[4]. Ireland followed in 1997, establishing higher specialist training that consolidated EM as an academic discipline[5].

The European Society for Emergency Medicine (EUSEM), founded in 1994, and its 1998 Manifesto provided unifying vision for the specialty[6]. The first European Core Curriculum for EM (2002), expanded in 2009, established foundations for structured training across Europe[7,8]. By the early 2000s, only 11 of 27 European countries recognised hospital-based EM as a specialty, with substantial variation in organisation and training models.[2] Early adopters included Sweden (1996), Poland (1999), the Netherlands (2000), and Norway (2005)[2,3].

The European Commission's Directive 2005/36/EC on the recognition of professional qualifications created a regulatory incentive for harmonised specialist training and facilitated professional mobility. Automatic recognition applies only to specialties and qualifications notified by Member States and listed in Annex V, which also specifies minimum training durations (including a minimum of five years for Accident and Emergency Medicine where listed) and is periodically updated through delegated acts [9,59]. In this context, UEMS formally created the Section of Emergency Medicine, granting EM fuller representation and supporting the development of shared European standards such as the European Training Requirements (ETR) and the European Board Examination in Emergency Medicine (EBEEM)[10-12].

France established EM as a primary specialty in 2016 after decades of a Franco-German prehospital model, followed by Austria and Belgium in 2016, Greece in 2017, and Germany in 2018[3]. By 2020, approximately 27 European countries recognised EM as a primary specialty, although marked variation remained in training duration, structure, assessment methods, and paediatric exposure[10,13]. Spain was a significant outlier until 2024, when it formally approved EM as a medical specialty through Royal Decree 610/2024[22,23,57]. Subsequently, the Spanish Supreme Court (Third Chamber) partially upheld a legal challenge to Royal Decree 610/2024 (judgment of 12 May 2025), affecting elements of the extraordinary access route[58].

2. Evolution of Emergency Medicine as a Specialty in Europe

2.1 FROM FRAGMENTED PRACTICE TO RECOGNISED SPECIALTY

In the 1990s-2000s, emergency care in many European countries was delivered predominantly by physicians from other base specialties—internal medicine, surgery, anaesthesia, or general practice, often with limited formal EM training[8,15]. Standardised training is crucial to guaranteeing high-quality emergency care. Pan-European standards provide benchmarks for safe practice, facilitate transparent assessment, and support professional mobility and mutual recognition[10,20].

National EM societies and EUSEM have consistently advocated for formal specialty status, arguing that dedicated EM training improves patient safety, system efficiency, and workforce sustainability[3,6,7,10].

These efforts contributed to UEMS recognition and underpinned development of European training standards and examinations[10-12,15].

2.2 WHY HARMONISATION MATTERS

Given healthcare systems' diversity across Europe, harmonisation of EM training carries multiple benefits. First, establishing shared minimum standards for curriculum content, duration, supervision, and assessment enhances patient safety by ensuring all EM specialists achieve comparable core competencies [10,20]. Second, harmonisation facilitates professional mobility within the EU/EEA by aligning national programmes with automatic recognition of qualifications requirements[9,10]. Third, adoption of recognised standards strengthens EM as a specialist discipline in emerging countries, providing external validation and implementation templates[3,6,7,20]. Fourth, convergent standards support collaborative education, research, and workforce planning at European level[10-12,14,16].

However, implementation remains complex. National regulation differences, funding models, staffing, and pre-existing training structures create practical challenges, with legitimate concerns that "one-size-fits-all" solutions may fail to accommodate local needs and service configurations[2,3,20,21].

2.3 EUROPEAN TRAINING REQUIREMENTS AND MINIMUM DURATION

The EU Directive 2005/36/EC specifies a minimum of five years' specialist training for Accident and Emergency Medicine for the purposes of Annex V listing. However, the Directive does not determine whether a country adopts EM as a primary specialty or a supra-specialty; it provides a framework for recognition once a notified qualification is included in Annex V, and the Annex is updated through delegated acts[9,59]. This regulatory layer interacts with national choices on training configuration and scope of practice[10,22].

The ETR recommends a minimum of 5 years in line with the EU directive and beyond this requirement; it also does this for curriculum content, clinical exposure, supervision, and assessment, including formal final examinations (written, oral, and/or practical) to confirm competence at training completion[10,22,23]. These requirements provide a common reference point for national regulators while allowing flexibility in local implementation[10-12].

3. Current Landscape of EM Training in Europe

3.1 DIVERSITY OF STRUCTURES

Across Europe, EM training typically lasts 5-7 years after internship, but structures and entry routes vary[10,20,28,29]. Primary specialty EM programmes accept trainees after internship with structured rotations in EM and related acute specialties, as in Ireland, the UK, and many Nordic countries[20,28,29]. Supra-specialty models require completion of another specialty before focused EM training, as in Germany, Switzerland, and parts of Greece[2,3,16,28,29]. Hybrid arrangements exist in transitioning systems [3,28,29].

The EM ETR is deliberately flexible on programme structure but is prescriptive on outcomes; and it is expected to take 5 years of EM-relevant training and comprehensive final assessment to ensure training in EM is complete[10,22,23].

Table 1 presents a selection of European countries, integrating EuSEM's 2020 overview of EM specialty recognition and training duration with data collated from national EM societies regarding pediatric rotations and the national status of the European Board Examination in Emergency Medicine (EBEEM) as an exit examination. Marked heterogeneity exists in both program length and pediatrics training requirements. While assessment frameworks also differ across jurisdictions, formal integration of EBEEM into national certification remains limited to Malta (full examination) and the Flemish region of Belgium (Part A as the official theoretical component)[56,60].

Table 1. Selected European countries: EM specialty status and training period (EUSEM update 2020, with Spain updated to 2024), paediatric rotation, and national recognition of EBEEM as an exit examination.[56,60]

Country	EM status (year)	EM training period (years)	Paediatric rotation	EBEEM as exit exam	
Germany	Supra-specialty (2018)	2.5	Varies / not specified	No	
France	Primary specialty (2015)	4	Varies; optional FST paeds EM	No	
Italy	Primary specialty (2008)	5	Varies by programme	No	
Greece	Supra-specialty (2017)	3	Varies / not specified	No	
Ireland	Primary specialty (1997)	7	Yes (min 6 months)	No (FRCEM)	
United Kingdom	Primary specialty (1972)	6	Yes (min 6 months)	No (FRCEM)	
Belgium	Primary specialty (2005)	6	Yes (3-6 mo)	Yes (Part A in Flanders)	
Turkey	Primary specialty (1993)	4	Yes (2 mo)	No	
Spain	Primary specialty (2024)	4	Yes (1 mo; draft programme)	Not yet	
Switzerland	Supra-specialty (not specified)	1.5	Yes (3–6 mo; varies)	No	
Poland	Primary specialty (1999)	5	Yes (3 mo)	No	
Malta	Primary specialty (2004)	6	Yes (12 wk)	Yes (full exam)	
Sweden	Primary specialty (2015)	5	Varies by programme	No	

3.2 IRELAND: IAEM/RCSI NATIONAL EMERGENCY MEDICINE TRAINING PROGRAMME

Ireland's National Emergency Medicine Training Programme (NEMTP) is a seven-year scheme supervised by the Irish Committee for Emergency Medicine Training (ICEMT) and delivered through RCSI and IAEM.[29,30].

It comprises:

- **Core (Basic) Specialist Training in EM (CSTEM)**—three years with predefined rotations in EM, acute medicine, trauma/orthopaedics/plastics, paediatrics/paediatric EM, and anaesthesia/ intensive care[29,30].
- **Advanced (Higher) Specialist Training in EM (ASTEM)**—four years at specialist registrar level, rotating through accredited adult and paediatric EDs, critical care, and pre-hospital/ trauma posts[29-31].

Progression requires completion of all CSTEM competencies, passing the Membership of the Royal College of Emergency Medicine (MRCEM) and the Fellowship of the Royal College of Emergency Medicine (FRCEM) examinations, and a satisfactory Assessment of Suitability for Advanced Training[29,30]. FRCEM is mandated for NEMTP completion and entry onto the Irish Medical Council specialist register in EM[29-31]. The NEMTP curriculum explicitly maps to the European EM curriculum and ETR, emphasising broad acute-care exposure, substantial paediatric EM experience, simulation-based training, and structured feedback[21,28-30].

3.3 UNITED KINGDOM: RCEM CURRICULUM

In the UK, EM specialist training follows the Royal College of Emergency Medicine (RCEM) curriculum approved by the General Medical Council. The 2021 RCEM curriculum describes a six-year programme (ST1-ST6) with defined learning outcomes and integrated assessment framework.[28] The Acute Care Common Stem (ACCS), shared with anaesthesia, acute internal medicine, and intensive care, provides broad acute-care foundation before higher EM training[28].

Training is organised around Specialty Learning Outcomes covering resuscitation, major trauma, acute medical and surgical emergencies, paediatric EM, and non-clinical competencies (leadership, governance, education, research)[28]. Assessment combines workplace-based assessments, multi-source feedback, and RCEM Fellowship examinations. The RCEM curriculum is broadly congruent with the European EM curriculum in content and competency-based emphasis, though structure and nomenclature differ[19-22,28].

3.4 NORDIC, CONTINENTAL EUROPEAN, AND OTHER MODELS

Sweden recognised EM as an independent primary specialty in 2015 with a five-year training programme following foundation training[28,29,33]. Nordic curricula are competency-based, typically five years (six in some systems), with substantial ED time and mandatory rotations in acute medicine, anaesthesia/intensive care, and paediatrics, aligning closely with ETR outcomes[28,29,33].

Turkey recognised EM in 1993, with residency programmes typically four to five years characterised by high clinical volumes, substantial resuscitation and trauma exposure, and extensive night-shift work[4,28,30]. Core competencies in acute care, procedural skills, and leadership are well represented, though programme length and variable paediatric exposure differ from ETR recommendations, making the ETR a useful framework for future expansion[20,22,28,30].

Italy has developed EM as a primary specialty with five-year residency through university-based regional schools[28,31,35]. Italian programmes often have strong critical-care and acute internal medicine focus, with rotations reflecting the integrated "emergency-urgency" model of care, accommodated by the ETR's competency-based approach specifying outcomes rather than mandating specific service models[10,22,28,31].

Germany continues a predominantly supra-specialty model, with physicians trained first in another discipline before acquiring emergency qualifications [2,3,28,37]. Recent reorganisation through central

emergency departments has advanced emergency care, but debate continues regarding supra-specialty training adequacy for complex ED work, with the ETR providing a roadmap for progressive EM development[10,20,22,28].

France represents a major recent success, introducing EM as a primary specialty with four-year residency[28,29,39]. French EM training combines full-time hospital work with structured university-based teaching; typical rotations include EDs, intensive care, pre-hospital emergency medical services, paediatrics, and other acute specialties, with embedded simulation, monthly seminars, and competency-based assessment reflecting ETR principles[10,21,28,39].

3.5 TRAINEE EXPERIENCE AND WELLBEING

The joint EUSEM YEMD-EJD 2015 survey documented large variations in working hours, supervision, access to formal teaching, and workload among EM trainees across Europe[14]. National trainee surveys similarly highlight concerns about high workload, rota gaps, and limited protected teaching time despite generally positive curriculum views[29].

These conditions contribute to burnout. A recent European review reported high burnout rates among EM physicians with night-shift burden, ED crowding, and work lack of control as key risk factors[34]. Strong specialty recognition and clear, structured training pathways may support professional identity and resilience[25,34]. The EUSEM workforce reports further underline that workload, staffing shortages, and insufficient protected training time are major threats to trainee wellbeing and EM training programme sustainability[16,17].

4. International Frameworks: EUSEM, UEMS, IFEM and Global Emergency Medicine

4.1 EUSEM AND NATIONAL SOCIETIES

The European Society for Emergency Medicine (EUSEM), founded in the mid-1990s, unites emerging national EM societies and individual clinicians under a common European umbrella[5,28,31]. Early EUSEM work focused on advocacy for specialty recognition and producing the first European Core Curriculum for EM (2002, substantially expanded in 2009), articulating common competencies and rotations long before widespread primary specialty recognition[7,8,19].

Over time, EUSEM's role has broadened from curriculum development to congresses, research networks, workforce reports, and collaborative projects on working conditions[16,28,31,35]. National EM societies members of EUSEM, allow unified joint position statements on specialty recognition, contribute national data to European surveys, and forums for aligning local curricula with European frameworks[14,16,28,31,35]. This evolution from an advocacy group to pan-European scientific and educational organisation, underpins the harmonisation agenda described herein[3,5,16,28,31].

4.2 UEMS SECTION AND BOARD OF EMERGENCY MEDICINE

Within UEMS, EM was initially represented only indirectly through other specialties[2,3]. The formal creation of the UEMS Section and Board of Emergency Medicine in 2011 marked a turning point, recognising EM as a distinct specialty at European level and providing a dedicated platform for postgraduate training standards[3,10,22].

The first UEMS European Training Requirements for EM (2018) translated earlier EUSEM curriculum work into a regulatory document defining minimum duration, content, supervision, and assessment [10,22,23]. The 2024 revision introduced clearer competency descriptors, strengthened expectations for paediatric EM exposure, interprofessional practice and non-technical skills, and updated guidance on final examinations and workplace-based assessment [11,22,23]. In parallel, the UEMS EM Section and Board, collaborating with EUSEM, developed and refined the European Board Examination in Emergency Medicine (EBEEM), moving from initial blueprint to "assessment of excellence" explicitly mapped to the ETR and contemporary high-stakes assessment principles[11,12,15,22].

4.3 IFEM: FROM MODEL CURRICULUM TO GME 2025 AND ACCREDITATION

The International Federation for Emergency Medicine (IFEM), emerging in the early 1990s as a global federation of EM societies, has progressively developed structured educational standards. The 2009 undergraduate model curriculum and 2011 specialist curriculum were landmark documents, offering competency-based frameworks defining core knowledge, skills, and professional behaviours across domains including resuscitation, trauma, acute medical and surgical illness, paediatrics, obstetrics, toxicology, and non-technical skills.[34,35] These curricula were explicitly framed as adaptable templates for countries at different EM development stages[34,35].

IFEM's work has evolved into comprehensive resources. The Graduate Medical Education Emergency Medicine Curriculum 2025 recommendations update the specialist curriculum by structuring training around Entrustable Professional Activities (EPAs), integrating leadership, quality, and systems-based practice, and emphasising longitudinal workplace-based assessment[32,36]. IFEM has developed a model accreditation framework for EM training sites and continuing professional development resources, setting standards for case-mix, supervision, educational governance, and quality assurance[32,36,37]. These developments illustrate progression from single, static curricula to an integrated global framework spanning undergraduate education, residency training, CPD, and institutional accreditation, providing a reference against which European initiatives like the ETR and EBEEM can be compared[10,22,31-37].

4.4 GLOBAL EMERGENCY CARE AND LESSONS FOR EUROPE

Global health research has quantified the burden of emergency conditions. Obermeyer and colleagues, using data from 59 low- and middle-income countries, showed that a substantial proportion of deaths are attributable to time-sensitive conditions potentially responsive to timely emergency care[37]. Subsequent Global Burden of Disease analyses estimate that a significant share of global mortality and disability-adjusted life years arises from "emergency conditions", highlighting emergency care systems as a cross-cutting platform[38].

Rybarczyk et al. systematically reviewed EM training programmes in LMICs and found marked heterogeneity in duration, structure, and content, with many adapted from North American or European curricula but requiring modification to reflect local epidemiology, resource constraints, and workforce needs[39]. These findings reinforce a key proposition: competency-based frameworks such as IFEM's GME curriculum and the European ETR can be powerful tools but must be adapted thoughtfully to local context rather than transplanted entirely[10,22,31-37,39,40].

European EM both shapes and learns from this global movement. European experts have been central to developing IFEM model curricula, GME 2025 recommendations, and accreditation frameworks [31-36]. Simultaneously, lessons from resource-limited settings emphasising efficient triage, early resuscitation, task-sharing, and pragmatic diagnostics use have clear relevance for overcrowded, resource-pressured European EDs, supporting the argument that European harmonisation efforts should remain outward-looking and aligned with global EM standards[31-37,37-39].

5. Advances and Disparities in EM Training Across Europe

5.1 SPECIALTY RECOGNITION AND MOBILITY

Recognition of EM as a primary specialty has expanded substantially, culminating most recently in Spain's 2024 decision[2,22,23]. However, supra-specialty and hybrid models persist in several countries, with implications for specific dedicated ED experience versus base specialties, EM-specific curriculum depth and breadth, and cross-border mobility and ease of mutual recognition[2,3,10,20,28,29].

A recent multi-country analysis reported that incomplete EM recognition is associated with poorer working conditions, weaker professional identity, and higher burnout risk, argues that standardised

training and formal specialty status are key levers for improving job satisfaction and reducing psychosocial risk factors[25,18]. These findings support the ETR's role as an educational framework and a vehicle for professional recognition and safe mobility within the EU/EEA[10,22,23,26].

5.2 PAEDIATRIC EMERGENCY MEDICINE TRAINING

There remains a gap in training in Paediatric emergency medicine (PEM) in many European programmes. EUSEM's communication on the updated ETR notes that survey data shows "significant gaps in child health training across Europe". This prompted the 2024 ETR requirement of at least 20% of minimum EM training time in paediatric emergencies[21,22,23]. A Europe-wide PEM training survey reported that PEM time ranged from only one to 11 months in most countries, with wide variation in paediatric resuscitation and critical care exposure[21]. Needs assessments from Italy and elsewhere have identified deficiencies in neonatal resuscitation and paediatric cardiac-arrest management among residents and graduates, alongside variable simulation-based PEM training access[35,42].

Simulation-based medical training is widely valued but unevenly available, particularly for high-acuity emergency scenarios[35]. Structured, simulation-based PEM curricula can address gaps but require protected time, faculty expertise, and institutional support to be sustainable[35,42]. The ETR's explicit paediatric requirement is a major harmonising mechanism, likely driving increased PEM rotations, dedicated paediatric ED placements, and expanded simulation use across Europe[21,22,23].

5.3 EDUCATIONAL METHODS AND ASSESSMENT

Competency-based education, workplace-based assessment, and simulation adoption is heterogeneous across European EM programmes. More longstanding primary-specialty systems like in Ireland, UK, Nordic region, and several western European countries have largely embedded outcomes-based curricula with clearly defined competencies, structured workplace-based assessment, and growing simulation use[20, 28-30,28,29,42]. Some supra-specialty or hybrid systems continue relying predominantly on time-based training and end-of-rotation reports, with limited EPA formalisation, feedback structures, or simulation-based assessment[2,3,20,28,37].

The EM ETR requires regular formative assessment, annual progress review, and final summative examination, but deliberately does not prescribe specific tools. It provides examples that can be utilised, allowing national bodies to choose among written/oral exams, OSCEs, simulation, and portfolio-based systems[10,22,23]. Across Europe, assessment approaches range from comprehensive national systems (e.g., FRCEM) to locally defined portfolios and institutional exit exams[20,28-32].

This heterogeneity has prompted calls particularly from trainees and early-career specialists for greater transparency and standardisation through a widely recognised, ETR-aligned European examination such as EBEEM[14,15,22,28,18].

5.4 WORKFORCE AND WELLBEING

Workforce constraints remain central. Eurostat and WHO data show substantial variation in physician density across Europe, with generally higher ratios in western and northern countries and lower ratios in eastern and southern regions[43,44]. These disparities, combined with population ageing and rising unscheduled care demand, contribute to chronic ED crowding and staffing pressures[16,17,26,43].

Burnout and psychological distress among EM clinicians are now well documented. A recent European review highlighted high burnout rates and identified workload, shift intensity, night-work burden, and work lack of control as key drivers [18]. EuSEM's working conditions and workforce reports describe high stress, intentions to leave, and recruitment and retention difficulties, particularly in inadequately staffed and limited protected training time settings[16,17,45].

Harmonised, robust training standards cannot alone solve workforce shortages but can strengthen EM's

professional status, support recruitment and retention, and provide frameworks for safer staffing, supervision, and educational governance[10,16,22,25,31,26].

6. The European Training Requirements as a Harmonisation Framework

The European Training Requirements for EM, developed by the UEMS Section and Board in collaboration with EUSEM, now function as the central European EM training framework[10,22,23,45]. The original ETR (2018) translated the earlier European Core Curriculum into a formal UEMS standard; the 2024 revision refined competencies, clarified scope of practice, and strengthened requirements for paediatric EM and professional roles[10,11,22,23,45,46].

Conceptually, the ETR describes the EM clinician's development from novice requiring direct supervision to fully entrusted specialist capable of independent practice[22,45,47]. It explicitly links competency-based medical education to progressive entrustment, using EPAs and CanMEDS-style professional roles (communicator, collaborator, leader, scholar) to frame clinical and non-clinical capabilities[22,45-47]. Importantly, the document addresses the whole training system defining expectations not only for trainees but also for training sites, trainers, supervision structures, and governance[22,23,45].

The ETR describes key elements: at least five years of EM-relevant training after internship; broad curriculum content covering resuscitation, acute medical and surgical emergencies, trauma, paediatric emergencies, obstetric/gynaecological emergencies, toxicology, disaster medicine, and non-technical skills; explicit professional roles; organisational standards for supervision, protected training time, research exposure and educational governance; and assessment requirements including regular formative review, maintained portfolio, and formal final examination[19-22,45,46]. The 2024 update adds clearer paediatric EM expectations by requiring at least 20% of minimum training time and progressive independence documentation and entrustment [21, 22,23,45,46].

For programmes such as IAEM/RCSI NEMTP and RCEM curriculum, the ETR mainly validates existing practice and offers a shared reference for mapping national outcomes, assessment systems, and non-clinical competencies[20,28-32,45]. For countries developing EM de novo or transitioning from supra-specialty models, it is more explicitly aspirational: a blueprint setting minimum duration, scope, and assessment standards while allowing phased implementation [2, 3,10,20,22,28,29,45].

Within the overall argument, the ETR function is:

- A benchmark and reference standard for national curricula and accreditation.
- A declaration of EM scope, role and importance, supporting EM recognition as a distinct specialty at national and European levels.
- A curricular foundation for common exit assessments, including EBEEM, explicitly aligned with ETR outcomes[11,12,15,22,28,45].
- A facilitator of safe mobility and mutual recognition of EM specialists across borders, defining a shared minimum training and capability standard[10,22,23,26,45].

Therefore, the ETR is not merely a syllabus document but a strategic harmonisation instrument connecting local training programmes, European recognition processes, and global competency-based frameworks promoted by IFEM[10,22,31-37,45-47].

7. The European Board Examination in Emergency Medicine

The European Board Examination in Emergency Medicine (EBEEM) was developed in the late 2000s by a joint EUSEM-UEMS Section and Board in EM committee as a pan-European, high-stakes assessment aligned first with the European EM curriculum and subsequently with the EM ETR[11,12,15,22,48]. Petrino and colleagues described EBEEM as "assessment

of excellence", intended to confirm successful candidates are ready for independent, specialist-level EM practice across Europe[15,48]. The examination has been progressively blueprint-aligned to the updated ETR and refined in structure, standard setting, and delivery format[11,15,22,48].

EBEEM is a two-part examination. Part A is a written single-best-answer MCQ paper sampling EM's full breadth, including adult and paediatric medical and surgical emergencies, trauma, toxicology, and non-clinical domains; eligibility requires at least 18 months of EM-relevant experience with some related acute-care rotations accepted for trainees[48-50]. Part B is a structured oral examination using scenario-based stations to assess resuscitation and procedural skills, prioritisation, clinical reasoning, communication, and professionalism at consultant level[15,48-50].

Eligibility for Part A requires a current national medical regulatory authority registration and documented evidence of at least 18 months of EM-relevant practice. The application must be supported by a supervisor. Non trainees must also submit proof of recent continued medical education[48-50]. To sit Part B, candidates must have passed Part A within the previous four years and meet one of several pathways: nearing completion of a minimum five-year EM programme aligned with the European curriculum; recognition as an EM specialist with at least five years' full-time ED work in an established EM specialty country; or, in countries without formal EM recognition, at least five years' EM practice with a documented portfolio demonstrating ETR-aligned curriculum competence[48,50].

Successful completion of both parts awards the Fellowship of the European Board of Emergency Medicine (FEBEM). EBEEM as pan-European specialist-level competence certification aligns directly with the ETR[18,48-51]. The examination is increasingly delivered in remote or hybrid formats, improving access across Europe and international[48-50].

From a professional perspective, EBEEM serves multiple roles. For individual clinicians, it provides an externally validated European credential signalling ETR-level specialist competence attainment and enhancing competitiveness for consultant posts and academic positions[15,18,48-50]. It offers structured self-assessment and benchmarking, enabling candidates to gauge progress against a Europe-wide standard and to identify further development areas[15,48-50].

At a systems level, EBEEM offers regulators, national societies, and employers a shared quality reference point, particularly in settings lacking robust national exit examinations[11,15,18,22,48]. Malta uses full EBEEM (Parts A and B) as the official EM specialty training exit exam, and Flanders (Belgium) uses Part A as the EM and EM supra-specialty exit exam theoretical component[15,48,49]. In most other countries, EBEEM is recognised as postgraduate assessment and quality mark, but not directly linked to licensure or specialist registration[48-50].

7.1 RELATIONSHIP WITH NATIONAL EXAMINATIONS

EBEEM is explicitly designed to complement, not replace, national examinations required for training completion or specialist register entry[15,18,48-50]. In Ireland, for example, IAEM and ICEMT specify that NEMTP completion requires RCEM's MRCEM and FRCEM examinations and that FRCEM is mandatory for Irish Medical Council specialist register entry in EM, while EBEEM is a valued European credential rather than regulatory equivalent[27,28,48].

In developing EM or countries that lack national exit exams or transitioning from supra-specialty models, EBEEM can play a more structural role; either as a de facto exit examination or as a template for building national assessments aligned with ETR outcomes[11,15,18,22,28,48]. This diversity of use reflects both harmonisation strengths and political realities: EBEEM provides a common benchmark, but acceptance as "equivalent" to long-standing national examinations evolves to this end, more slowly in those domestic structures and regulatory traditions [3,10,20,28,29,48].

7.2 LIMITATIONS AND CHALLENGES

Despite strategic potential, EBEEM has important limitations. Passing does not automatically confer the legal right to practise as a specialist or non-specialist in any European country; recognition of specialist status remains national competent authorities' (NCAs) responsibility[18,22,48-50]. Uptake across Europe is heterogeneous, with only a small number of countries making EBEEM compulsory as exit exam, and variable awareness and engagement among trainees, trainers, and programme directors [16,28,18,49,50].

EBEEM has been developed in line with Council of European Specialist Medical Assessments (CESMA) recommendations but has not yet undergone full CESMA inspection and formal recognition[18,22,48,51]. Securing formal CESMA recognition would substantially enhance credibility and represent a vital milestone in consolidating EBEEM's role as a benchmark examination for European EM training [18,22,48,51].

For EBEEM to fulfil its harmonisation potential, broader engagement is needed: national authorities and training bodies must consider how EBEEM (or EBEEM-aligned models) can integrate with local curricula, exit examinations, and accreditation processes, and trainees must see it as relevant to their career trajectories[10,16,22,25,28,18,48]. Involvement by all national competent authorities in EBEEM's development, quality assurances and the examining candidates, especially in countries with robust national training programs would contribute to harmonisation and maintain a benchmark standard.

8. Trainee Perspectives on Standardisation

Govender et al., writing on behalf of EMERGE and YEMD, recently synthesised young EM physicians' views, describing heterogeneous training pathways, supervision structures, and assessment systems across Europe, and arguing that evidence-based, standardised, and interactive training is essential to guarantee high-quality emergency care and strengthen EM's discipline credibility[52,53]. Importantly, they note that standardised frameworks and examinations explicitly including EBEEM can facilitate professional mobility and mutual recognition within the EU[15,22,48,52].

The earlier EuSEM YEMD-EJD survey emphasised substantial variation in training conditions, supervision, access to teaching, and formal final examination presence or absence[14]. Although not solely focused on EBEEM, it highlighted trainee concerns that inconsistent assessment structures undermine competence comparability and complicate mobility, especially when moving between countries with very different exit assessments[14,16,20].

Trainee-focused studies suggest three broad expectations: recognition that training and assessment structures currently vary widely across Europe; broad support for standardised frameworks (ETR) and shared examinations (EBEEM) to enhance comparability and mobility; and strong demand that end-of-training examinations be fair, transparent, well-supported, and closely mapped to agreed competencies[14,15,22,48,52].

8.1 KEY CHALLENGES IN TRAINING AND HARMONISATION ACCORDING TO TRAINEES

Trainee-led surveys repeatedly identify several recurring challenges:

- **Specialty recognition gap:** In some countries, EM is not yet recognised as a primary specialty but remains embedded within other disciplines, leading to fragmented training pathways and variable EM specialist identity [2,3,20,28,29,18,52].
- **Procedural and paediatric exposure:** Previous European surveys showed PEM exposure ranging from only one to 11 months in many programmes; the 2024 ETR responded by mandating at least 20% of minimum EM training time in paediatric emergencies[21,22,23,52].
- **Assessment inconsistency:** While EBEEM offers a European benchmark, many countries rely solely on national exit exams of variable rigour or lack formal final assessment; trainees

report this variability undermines comparability and limits qualifications' signalling power[14,15, 20,22,28,48,52].

- **Training centre accreditation and capacity:** The ETR and IFEM frameworks emphasise minimum training site standards (case-mix, supervision ratios, simulation facilities, educational governance), but national realities vary widely, especially in smaller or resource-constrained systems [10,22,31,32,36,52].
- **Mobility and recogntion:** Without ETR alignment and common benchmarks like EBEEM, trainees and specialists may face barriers when moving between countries, and patients may experience variable emergency care standards[10,20,22,25,28,18,48,52].
- **Trainee workload:** Surveys consistently describe heavy clinical workloads, night-shift burden, rota gaps, and limited protected educational time, which trainees feel impede learning, reflection, and research or leadership engagement[14,16,17,34,18,52].

Trainee perspectives do not oppose harmonisation; rather, they clearly articulate why standardisation of curricula (ETR), examinations (EBEEM), and training environments is necessary, and what conditions—fairness, transparency, support, and contextual flexibility are required for these tools' effectiveness and acceptance[14,15,22,25,32,48,52].

9. Europe, LMICs and Mutual Learning

Global EM literature indicates that developing emergency care systems in low- and middle-income countries (LMICs) can yield substantial health gains at relatively modest cost, as a large share of deaths arises from time-sensitive, amenable emergency interventions[37,38]. EM training programmes in LMICs vary widely in duration (typically 1-4 years), structure, and assessment, often adapted from high-income country curricula but requiring contextualisation to local epidemiology and resources[39].

Recent research-priority setting for LMIC emergency care emphasises interdisciplinary collaboration, context-specific training, and pragmatic quality improvement rather than simple high-income model transfer[40]. IFEM's updated quality and safety framework stresses that global standards are useful only when implemented as tiered, locally adapted measures linked to available resources and disease burden[32,33].

European EM sits within and contributes to this global movement. The EM ETR and European curriculum, aligned with IFEM model curricula and emerging IFEM EPAs, can inform LMIC curriculum development while being adapted to local health-system realities.[10,31-33,36,40.] Simultaneously, European systems can learn from resource-limited settings, where innovations in triage, task-sharing, early critical care, and low-cost simulation have been developed facing crowding, scarce ICU beds, and chronic staff shortages—challenges shared by many European E.Ds.[33,39,40].

Europe is at a pivotal stage: the ETR and EBEEM offer structures to harmonise training, yet substantial variability remains in recognition status, duration, assessment practices, training infrastructure, and trainee experience, creating ongoing challenges for mobility, quality assurance, and sustainable workforce development[10,16,20,22,25,28,31,17,45,48].

10. Future Directions and Recommendations

10.1 COMPETENCY-BASED AND EPA-INFORMED TRAINING

The updated ETR's emphasis on roles and progressive entrustment aligns with the broader shift towards competency-based medical education[22,45,47]. IFEM's work on Entrustable Professional Activities provides a complementary international framework, defining core EPAs required for safe independent practice[32,36].

European stakeholders could build on this by: developing a European EM EPA set explicitly mapped to ETR outcomes; creating shared workplace-based assessment tools (entrustment scales, mini-CEX, DOPS) aligned with those EPAs; and offering

faculty-development programmes on CBME, feedback, and EPA implementation through EUSEM/YEMD courses[22,31,32,47,52].

10.2 OPERATIONALISING THE PAEDIATRIC EM REQUIREMENT

To meaningfully implement the requirement that at least 20% of EM training time is spent in paediatric emergencies, countries will need adequate exposure through dedicated paediatric EDs, integrated mixed EDs, or regional training hubs, combined with structured PEM curricula and simulation-based training[21,22,35,42].

Priority content includes neonatal and paediatric resuscitation, serious illness recognition, child protection, and adolescent medicine, with practice in low-frequency, high-acuity scenarios using simulation and team-training[35,42,41]. Countries with developed PEM services (Ireland, UK) can support others through regional fellowships, shared teaching resources, and collaborative EUSEM paediatric section courses[21,28-30,42].

10.3 INTEGRATING EBEEM INTO NATIONAL TRAINING FRAMEWORKS

EBEEM's harmonising potential will be maximised if more deliberately integrated into national training systems while respecting local regulation[11,15,18,22,28,48].

Practical options include recognising EBEEM as an additional completion-of-training quality marker; aligning national end-of-training examinations more closely with ETR and EBEEM blueprints so preparation is synergistic; and using anonymised, aggregated EBEEM performance data for programme evaluation and curriculum review [20,22,28-32,48-50]. Any integration must respect national regulatory requirements for example in countries with long standing programs where they maintain a set reference standard for specialist registration and EBEEM functions as a complementary European credential[27,28,32,48]. Specialist from these countries would be key stakeholders to enhance the examination thereby providing a means for harmonisation and maintaining standards of national competence.

10.4 EQUITY AND ACCESS

To avoid exacerbating inequities, harmonisation and European-level assessments must remain accessible. For EBEEM, this implies maintaining remote or regional examination formats, considering bursaries for lower-resource setting candidates, and ensuring transparent cost and eligibility communication[48-50,52].

EUSEM and national societies can support equity by expanding open-access educational resources (e.g., EUSEM Academy, podcasts, online courses) explicitly aligned with ETR and EBEEM blueprints, reducing commercial preparation tool dependence[17, 31,36,50]. Language, digital access, and local faculty development attention will be essential if harmonisation benefits smaller or resource-limited countries rather than only reinforcing already well-resourced systems' advantages[16,20,28,31,32,39,52].

11. Discussion

Europe is closer than ever to meaningful EM training harmonisation, but the picture remains uneven[2,3,10, 16,20,22,28,29,17]. Most countries recognise EM as a specialty and many operate robust, outcome-based programmes, yet substantial variation persists in recognition status, training duration, paediatric exposure, assessment structures, educational infrastructure, and working conditions [2,3,10,16,20,21, 25,31,35,42].

The unanimous EM ETR adoption by UEMS provides a unifying, authoritative framework for duration, scope, and outcomes, while EBEEM offers a pan-European, ETR-aligned benchmark for exit-level competence[10,11,15,19-23,45,48-50]. Trainee networks such as YEMD/EMERGE and national surveys document variability and call for more transparent, comparable standards, showing harmonisation is a shared priority for leaders and learners[14,16,25,31,34,18,52].

Several strategic harmonisation pathways are apparent. Progressive ETR adoption either fully or via phased, context-sensitive implementation forms the foundation, recognising some systems remain supra-specialty or hybrid while others have mature primary-specialty structures[2,3,10,20,22,28,29,45].

Aligning national exit examinations more closely with ETR and EBEEM blueprints can enhance qualification portability and mutual recognition without displacing national regulatory authority[20,22,28-32,48-50]. Training centre accreditation, with minimum expectations for case-mix, supervision ratios, PEM exposure, and simulation capacity, is essential to translate paper standards into consistent training quality [10,21,22,31, 32,36,42]. Strengthening trainee voice through structured feedback and EUSEM/UEMS representation responds to evidence that young EM doctors want fair, transparent, workload and wellbeing-attentive harmonisation, not top-down imposition[14,16,25,31,34,18,52].

Long standing national programmes like IAEM/RCSI NEMTP and RCEM curriculum illustrate how these systems which already embody many ETR principles and can provide practical exemplars for countries developing EM de novo or transitioning from supra-specialty models[20,28-32,45]. They can themselves benefit from more engagement in the European programme by explicitly mapping curricula to the updated ETR; contributing as examiners, developing questions, and providing standard-setting expertise to EBEEM; and drawing on innovations from other systems (Nordic CBME and supervision models, French simulation-rich curricula, Turkish high-volume resuscitation exposure) to refine their own practice[20,22,28,29,32,29,33,35,48,52].

EBEEM occupies a pivotal but under-used position. As a two-part, ETR-aligned, pan-European examination, it provides individual clinicians with a visible European credential (FEBEM), offers programmes and regulators a shared external benchmark, and, in a few countries, already functions as an official or partial exit examination[11,15,18,22,28,48-50].

Important barriers though remain. In some countries, EM is still not recognised as a full specialty [2,3,10,16, 20,22,28,29]. Resource limitations particularly in smaller or economically constrained settings affect procedural exposure, paediatric time, simulation capacity, and faculty development, necessitating cross-border collaboration, regional training hubs, and digital learning solutions[16,20,28,31,32,35,39,52]. Workforce pressures and limited protected educational time threaten competency-based and EPA-based curricula feasibility, while uneven EBEEM uptake and lack of formal CESMA recognition currently limit full acceptance as a "gold-standard" European exam [16,25,31,34,18,48,51].

National EM societies remain the key constructive change agents. They are best placed to lead ETR-aligned curriculum revision, the EBEEM, advocate for specialty recognition and resources, build simulation, leadership, and research capacity, and ensure trainee participation[17,16,20,28,31,35,52]. They also need visible presence in ongoing European instrument evolution through ETR revision group representation, IFEM and EUSEM education committee participation, and active EBEEM examiner and question writer involvement so both ETR and EBEEM remain ambitious, credible, and truly representative of European EM practice diversity [10,11,22,28,31,32,36,45,48,52,36].

12. Conclusion

Emergency medicine in Europe has evolved from its early, fragmented state. Most countries now recognise EM as a specialty, and many operate robust, ETR-aligned programmes delivering broad acute-care exposure, structured assessment, and strong professional identity, exemplified by IAEM/ RCSI NEMTP and RCEM curriculum models [2,3,10,16, 20,22,28-32,45].

Yet significant disparities persist, particularly in recognition status, PEM exposure, assessment structures, and working conditions, especially in supra-specialty or emerging EM systems [2,3,10,16,20,21, 25,31,35,42].

The EM ETR and EBEEM together offer a realistic standardisation route: a shared framework for training content, outcomes, and system requirements, and a pan-European benchmark exit assessment sitting alongside and enriching national processes rather than replacing them[10,11,15,19-23,45,48-50]. Trainee perspectives from YEMD, EMERGE, and national surveys show clear support for standardised training and examinations enhancing fairness, mobility, and EM's perceived legitimacy, while emphasising that

implementation must account for workload, supervision, and resource constraints [14,16,25,31,34,18,48,52].

If European EM leaders, national societies, trainees, and global partners can use these tools constructively supporting programmes' countries and those still developing EM, engage as contributors and examiners in the ETR and EBEEM processes, and remain open to mutual learning from Nordic, French, Turkish, LMIC, and other experiences; patients across Europe should increasingly be cared for by emergency physicians trained to common, high standards[10,16,20,22,25,28,31,31,36,45,48,52,36].

Those standards, grounded in competency-based education and progressive entrustment, must continue evolving with modern emergency care realities: rising demand, complex multimorbidity, paediatric and geriatric needs, workforce pressures, and global quality and safety expectations [16,20,21,31,34,32,33,37-40,36].

Conflicts of interest:

Govender K, Capriles F, Brown R, Butt M.A, Spiteri A, McNamara R are members of EMERGE (the Emergency Medicine Examination Reference Group for Europe), which is responsible for the development and delivery of the EBEEM.

References:

1. Bodiwala GG. Emergency medicine: a global specialty. *Emerg Med Australas.* 2007;19(4):287-288.

2. Fleischmann T, Fulde G. Emergency medicine in modern Europe. *Emerg Med Australas.* 2007;19 (4):300-302.

3. Totten VY, Bellou A, Riccardi A, et al. Development of emergency medicine in Europe. *Acad Emerg Med.* 2013;20(5):514-521.

4. Republic of Türkiye Ministry of Health. *Emergency Medicine Specialty Training Regulation.* Ankara, Türkiye: Ministry of Health; 1993.

5. Royal College of Surgeons in Ireland; Irish Committee for Emergency Medicine Training. *Guide to Emergency Medicine Training in Ireland.* Dublin, Ireland: RCSI; 2013.

6. Council of the European Society for Emergency Medicine. Manifesto for emergency medicine in Europe. *Eur J Emerg Med.* 1998;5(4):389-390.

7. Petrino R, Bodiwala G, Meulemans A, et al. EuSEM core curriculum for emergency medicine. *Eur J Emerg Med.* 2002;9(4):308-314.

8. European Society for Emergency Medicine. *European Core Curriculum for Emergency Medicine.* Version 2.0. Brussels, Belgium: EuSEM; 2009.

9. European Commission. Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications. *Off J Eur Union.* 2005;L255:22-142.

10. UEMS Section and Board of Emergency Medicine. *European Training Requirements for the Specialty of Emergency Medicine.* Brussels, Belgium: Union Européenne des Médecins Spécialistes; 2018.

11. UEMS Section and Board of Emergency Medicine. *Updated European Training Requirements for Emergency Medicine.* Brussels, Belgium: Union Européenne des Médecins Spécialistes; 2024.

12. European Society for Emergency Medicine. *Update: UEMS Adopts New European Training Requirements for Emergency Medicine.* Brussels, Belgium: EuSEM; 2024.

13. Petrino R. A curriculum for the specialty of emergency medicine in Europe. *Eur J Emerg Med.* 2009;16(3):113-114. doi:10.1097/MEJ.0b013e328 32b0239

14. Leto R, Van Asbroeck PJ. Young emergency medicine physicians and research: can you help? *Eur J Emerg Med.* 2013;20(3):222-223.

15. Petrino R, Brown R, Härtel C, Lemoyne S, Riccardi A, et al. European Board Examination in Emergency Medicine (EBEEM): assessment of excellence. *Eur J Emerg Med.* 2014;21(2):79-80.

16. Weigl M, Søreide E, Dahan A, van Schuppen H, et al. Key factors for sustainable working conditions in emergency departments: an EUSEM-initiated, Europe-wide consensus survey. *Eur J Emerg Med.* 2025;32(1):29-37. doi:10.1097/MEJ.00000000000 01159

17. European Society for Emergency Medicine. *Emergency Medicine Workforce Challenges in Europe.* Brussels, Belgium: EuSEM; 2022.

18. Kemnitz MG, Lupan-Muresan EM, Somville F, et al. A team without a name: emergency medicine recognition and its impact on working conditions and well-being. *Med Klin Intensivmed Notfmed.* 2025; 120(6):481-486. doi:10.1007/s00063-025-01275-8

19. European Society for Emergency Medicine. *European Board Examination in Emergency Medicine (EBEEM): Regulations and Overview.* Brussels, Belgium: EuSEM; 2023.

20. Gaakeer MI, van den Brand CL, Bracey A, van Lieshout JM, Patka P. Emergency medicine training in the Netherlands: essential changes needed. *Int J Emerg Med.* 2013;6:19.

21. Nijman RG, Brown R, Connolly J, et al. Providing urgent and emergency care to children and young people: training requirements for emergency medicine specialty trainees. *Eur J Emerg Med.* 2024;31(5): 305-307.

22. García-Castrillo Riesgo L, Vázquez Lima MJ. Specialization in emergency medicine in Europe: Spain is in danger of being left behind. *Emergencias.* 2015;27(4):216-218.

23. García-Castrillo L, Vázquez Lima MJ, et al. Spain now recognizes specialization in emergency medicine. *Emergencias.* 2024;36(5):321-323.

24. Tsiftsis DD, Tsekouras A, Gkounis K, et al. Emergency medicine in Norway: the road to specialty recognition—implications for other European countries. *Int J Emerg Med.* 2020;13(1):40.

25. Behringer W, Brown R. Status of the specialty emergency medicine in Europe. *Eur J Emerg Med.* 2023;30(6):386-388. doi:10.1097/MEJ.0000000000001069

26. UEMS Section and Board of Emergency Medicine. *Emergency Medicine Status in Europe: Recognition, Duration and Specialty Status by Country.* Brussels, Belgium: UEMS; 2024.

27. Royal College of Surgeons in Ireland. *Core Specialist Training in Emergency Medicine (CSTEM).* Dublin, Ireland: RCSI; 2022. Accessed December 13, 2025.

28. Royal College of Emergency Medicine. *Curriculum and Assessment System for Specialty Training in Emergency Medicine (2021 Curriculum).* London, UK: RCEM; 2021.

29. Björnsson HM, et al. Current postgraduate training in emergency medicine in the Nordic countries. *BMC Med Educ.* 2023;23(1):469.

30. Bektemur G, Osmanbeyoglu N, Cander B. Emergency services report. *Eurasian J Emerg Med.* 2015;14(1):1-38.

31. Università degli Studi di Milano. *Postgraduate School of Emergency Medicine and Critical Care: Programme Description.* Milan, Italy: University of Milan; 2025.

32. International Federation for Emergency Medicine. *IFEM GME Emergency Medicine Curriculum: 2025 Recommendations.* Melbourne, Australia: IFEM; 2025.

33. International Federation for Emergency Medicine. Model framework for the accreditation of training sites for emergency medicine specialists. *Int J Emerg Med.* 2025;18(1):196.

34. Hobgood C, Anantharaman V, Bandiera G, et al. International Federation for Emergency Medicine model curriculum for emergency medicine specialists. *CJEM.* 2011;13(2):79-97.

35. Thiebaud PC, et al. Designing simulation-based curriculum content for emergency medicine residents in France. *Front Med.* 2024;11:1386681.

36. International Federation for Emergency Medicine. *Model Framework for Accreditation of Emergency Medicine Training Sites.* Melbourne, Australia: IFEM; 2023.

37. Obermeyer Z, Abujaber S, Makar M, et al. Emergency care in 59 low- and middle-income countries: a systematic review. *Bull World Health Organ.* 2015;93(8):577-586.

38. Chang CY, Abujaber S, Reynolds TA, et al. Burden of emergency conditions and emergency care utilisation: new estimates from 40 countries. *Emerg Med J.* 2016;33(11):794-800.

39. Rybarczyk MM, Ludmer N, Broccoli M, et al. Emergency medicine training programs in low- and middle-income countries: a systematic review. *Ann Glob Health.* 2020;86(1):60.

40. Nowacki A, Landes M, Azazh A, Ritchie LM. Emergency medicine training programs in low- and middle-income countries: a review. *Int J Emerg Med.* 2013;6(1):26.

41. Binotti M, Genoni G, Rizzollo S, et al. Simulation-based medical training for paediatric residents in Italy: a nationwide survey. *BMC Med Educ.* 2019; 19(1):161.

42. Barcella A, et al. Structured simulation-based education in emergency medicine residency programs: Pavia's proposal for competence development and crisis management. *Emergency Care Journal.* 2025;10:14010.

43. Eurostat. *Healthcare Personnel Statistics—Physicians.* Luxembourg: Eurostat; 2023.

44. World Health Organization Regional Office for Europe. *Physicians per 100,000 Population: European Health Information Gateway.* Copenhagen, Denmark: WHO Europe; 2025.

45. Brown R, Prosen G, Dryver E, et al. The new European training requirements for emergency

medicine: rationale and implementation. *Eur J Emerg Med.* 2025;32(1):8-9.

46. Brown R; ETR Revision Group. The European Training Requirement 2024. *TATD Int Newsl.* 2025; (Sep):1-3.

47. Ten Cate O. Entrustable professional activities in competency-based medical education. Webinar presented at: UEMS European Training Requirements Webinar; June 22, 2021.

48. EMERGE Committee; European Society for Emergency Medicine; UEMS Section and Board of Emergency Medicine. *Regulations for the European Board Examination in Emergency Medicine.* Brussels, Belgium: UEMS/EuSEM; 2019. Updated 2024.

49. European Society for Emergency Medicine. *European Board Examination in Emergency Medicine (EBEEM): Exam Overview and Eligibility Criteria.* Brussels, Belgium: EuSEM; 2024.

50. UEMS Section and Board of Emergency Medicine. *EBEEM and FEBEM: Post-nominal Usage and Status in UEMS Member Countries.* Brussels, Belgium: UEMS; 2024.

51. Council of European Specialist Medical Assessments. *CESMA Guidance on European Postgraduate Medical Assessments.* Brussels, Belgium: UEMS-CESMA; 2024.

52. Govender K, Lupan-Muresan E; EMERGE; Young Emergency Medicine Doctors. Emergency medicine training in Europe: the young emergency medicine doctors' perspective. *Eur J Emerg Med.* 2025;32(1):5-7.

53. Young Emergency Medicine Doctors Section, EuSEM; Brown R, Bonsano M, Lupan-Muresan EM. How do European countries meet the standards of the European training requirements in emergency medicine? *Eur J Emerg Med.* 2022;29(5):325-326.

54. Royal College of Emergency Medicine. *Fellowship Examinations (FRCEM): Overview and Candidate Information.* London, UK: RCEM; 2024.

55. Eastin TR, Bernard AW. Emergency medicine residents' attitudes and opinions of in-training exam preparation. *Adv Med Educ Pract.* 2013;4:145-150.

56. European Society for Emergency Medicine. *Emergency Medicine Primary Specialty Status in the EU 2020.* Brussels, Belgium: EuSEM; 2020. Accessed December 13, 2025.

57. Boletín Oficial del Estado. Real Decreto 610/ 2024, de 2 de julio. *BOE.* 2024. Accessed December 13, 2025.

58. Boletín Oficial del Estado. Sentencia de 12 de mayo de 2025. *BOE.* 2025. Accessed December 13, 2025.

59. European Commission. Commission Delegated Decision (EU) 2019/608. *Off J Eur Union.* 2019;L104:1. Accessed December 13, 2025.

60. European Society for Emergency Medicine. *EBEEM Part A: Status of EBEEM as an Official Exit Exam.* EuSEM website. Accessed December 13, 2025.

