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

Govender, Kiren[1]; Capriles, Federico[2]; Brown, Ruth[3]; Butt, Muhammad Ashraf[4]; Spiteri, Anna[5]; McNamara, Rosa[6]

[1]Consultant in Emergency Medicine, Emergency Department, Portiuncula University Hospital, Ballinasloe, Galway, Republic of Ireland; Adjunct Clinical Associate Professor A University of Limerick, Ireland; Honorary 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

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ABSTRACT

Emergency Medicine (EM) in Europe 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 Emergency Medicine 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 EUSEMs affiliate national societies and UEMS specialties, a major milestone in recognising emergency medicine 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 reviewed all relevant literature, national and international policy documents, and survey data to describe advances and persisting disparities in emergency medicine training in Europe. 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.

Aims and Scope of this Perspective: This perspective aims to provide a comprehensive overview of the current state of emergency medicine training in Europe, highlighting harmonisation efforts, persistent challenges, and potential future directions. The scope encompasses the evolution of specialty recognition, variations in training structures, the role of key frameworks such as the European Training Requirements and European Board Examination in Emergency Medicine, and lessons from global contexts. By drawing on these elements, we seek to underscore the importance of standardised yet flexible training standards to enhance patient safety, professional mobility, and the overall sustainability of emergency care systems across Europe. This work builds on prior reviews and policy analyses to offer actionable insights for policymakers, educators, and trainees, emphasizing the need for ongoing collaboration amid diverse national healthcare landscapes.

Methods: This perspective article is an expert synthesis based on a narrative review of existing European and relevant international EM speciality literature, policy documents, and survey data. The authors, all experienced emergency medicine consultants and educators with roles in national and European training programmes (including membership in the Emergency Medicine Examination Reference Group for Europe), conducted a targeted search of PubMed, Google Scholar, and official websites of organisations such as the European Society for Emergency Medicine, Union Européenne des Médecins Spécialistes, and International Federation for Emergency Medicine for materials published between 1990 and 2025. Key search terms included "emergency medicine training Europe," "harmonisation emergency medicine," "European Training Requirements," and "European Board Examination in Emergency Medicine." Relevant policy documents (e.g., EU directives, national training curricula) and survey reports (e.g., from trainee networks) were collated and analysed thematically to identify advances, disparities, and harmonisation pathways. This approach allows for an informed, contextualised perspective while respecting the authors' collective expertise in the field.

1. Introduction

Emergency medicine (EM) 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 (EM) 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 emergency medicine (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 emergency medicine 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.[9,10] In this context, the UEMS formally created the Section of EM, granting it fuller representation and supporting the development of shared European standards such as the ETR and the EBEEM.[11-13]

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.[11,14] Spain was a significant outlier until 2024, when it formally approved emergency medicine as a medical specialty through Royal Decree 610/2024.[15,16,17] 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.[18]

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.[8,19] 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.[11,20] National EM societies and EUSEM have consistently advocated for formal specialty status, arguing that dedicated training improves patient safety, system efficiency, and workforce sustainability.[3,6,7,11] These efforts contributed to UEMS recognition and underpinned development of European training standards and examinations.[11-13,19]

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.[11,20] Second, harmonisation facilitates professional mobility within the EU/EEA by aligning national programmes with automatic recognition of qualifications requirements.[9,11] 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.[11-13,21,22] 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.[2,3,20,23]

2.3 EUROPEAN TRAINING REQUIREMENTS (ETR) 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.[9,10] This regulatory layer interacts with national choices on training configuration and scope of practice.[11,15]

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.[11,15,16] These requirements provide a common reference point for national regulators while allowing flexibility in local implementation.[11-13]

3. Current Landscape of Emergency Medicine 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.[11,20,24,25] 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.[20,24,25] Supra-specialty models require completion of another specialty before focused EM training, as in Germany, Switzerland, and parts of Greece.[2,3,21,24,25] Hybrid arrangements exist in transitioning systems.[3,24,25]

The EM European Training Requirements (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 for the speciality is complete.[11,15,16]

Table 1 presents a selection of European countries, integrating EUSEM's 2020 overview of emergency medicine specialty recognition and training duration with data collated from national societies regarding paediatric rotations and the national status of EBEEM as an exit examination. Marked heterogeneity exists in both program length and paediatrics training requirements. While assessment frameworks also differ across jurisdictions, formal integration of the EBEEM into national certification remains limited to Malta (full examination) and the Flemish region of Belgium (Part A as the official theoretical component).[26,27]

Table 1. Selected European countries: emergency medicine specialty status and training period (EUSEM update 2020, with Spain updated to 2024), paediatric rotation, and national recognition of European Board Examination in Emergency Medicine (EBEEM) as an exit examination.[26,27]

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 paediatric 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 months)	Yes (Part A in Flanders)
Turkey	Primary specialty (1993)	4	Yes (2 months)	No
Spain	Primary specialty (2024)	4	Yes (1 month; draft programme)	Not yet
Switzerland	Supra-specialty (not specified)	1.5	Yes (3–6 months; varies)	No
Poland	Primary specialty (1999)	5	Yes (3 months)	No
Malta	Primary specialty (2004)	6	Yes (12 weeks)	Yes (full exam)
Sweden	Primary specialty (2015)	5	Varies by programme	No

3.2 IRELAND: IRISH ASSOCIATION FOR EMERGENCY MEDICINE (IAEM)/ ROYAL COLLEGE OF SURGEONS IN IRELAND (RCSI) NATIONAL EMERGENCY MEDICINE TRAINING PROGRAMME (NEMTP)

Ireland's National Emergency Medicine Training Programme is a seven-year scheme supervised by the Irish Committee for Emergency Medicine Training and delivered through the RCSI and IAEM .[25,28] It comprises:

- Core (Basic) Specialist Training in emergency medicine—three years with predefined rotations in emergency medicine, acute medicine, trauma/ orthopaedics/plastics, paediatrics/paediatric emergency medicine, and anaesthesia/intensive care.[25,28]
- Advanced (Higher) Specialist Training in emergency medicine—four years at specialist registrar level, rotating through accredited adult and paediatric emergency departments, critical care, and pre-hospital/trauma posts.[25-28]

Progression requires completion of all Core Specialist Training 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.[25,28] The FRCEM is mandated for NEMTP completion and entry onto the Irish Medical Council specialist register in emergency medicine.[25-28]

The NEMTP curriculum explicitly maps to the European Emergency Medicine Curriculum and the ETR, emphasising broad acute-care exposure, substantial paediatric emergency medicine experience, simulation-based training, and structured feedback.[23,24,25,28]

3.3 UNITED KINGDOM: ROYAL COLLEGE OF EMERGENCY MEDICINE (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.[24] Training is organised around Specialty Learning Outcomes covering resuscitation, major trauma, acute medical and surgical emergencies, paediatric emergency medicine, and non-clinical competencies (leadership, governance, education, research).[24] Assessment combines workplace-based assessments, multi-source feedback, and RCEM Fellowship examinations. The curriculum is broadly congruent with the European Emergency Medicine Curriculum in content and competency-based emphasis, though structure and nomenclature differ.[29-32,24]

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.[24,25,33] Nordic curricula are competency-based, typically five years (six in some systems), with substantial emergency department time and mandatory rotations in acute medicine, anaesthesia/intensive care, and paediatrics, aligning closely with ETR outcomes.[24,25,33]

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.[4,24,28] Core competencies in acute care, procedural skills, and leadership are well represented, though programme length and variable paediatric exposure differ from ETR recommendations, making it a useful framework for future expansion.[20,32,24,28]

Italy has developed EM as a primary specialty with five-year residency through university-based regional schools.[24,34,35] 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 competency-based approach specifying outcomes rather than mandating specific service models.[11,32,24,34]

Germany continues a predominantly supra-specialty model, with physicians trained first in

another discipline before acquiring emergency qualifications.[2,3,24,36] Recent reorganisation through central emergency departments has advanced emergency care, but debate continues regarding supra-specialty training adequacy for complex emergency department work, with the ETR providing a roadmap for progressive emergency medicine development.[11,20,32,24]

France represents a major recent success, introducing EM as a primary specialty with four-year residency.[24,25,37] French training combines full-time hospital work with structured university-based teaching; typical rotations include emergency departments, intensive care, pre-hospital emergency medical services, paediatrics, and other acute specialties, with embedded simulation, monthly seminars, and competency-based assessment reflecting ETR principles.[11,23,24,37]

3.5 TRAINEE EXPERIENCE AND WELLBEING

The joint EUSEM / Young Emergency Medicine Doctors Section-European Junior Doctors 2015 survey documented large variations in working hours, supervision, access to formal teaching, and workload among trainees across Europe.[38] National trainee surveys similarly highlight concerns about high workload, rota gaps, and limited protected teaching time despite generally positive curriculum views.[25]

These conditions contribute to burnout. A recent European review reported high burnout rates among emergency medicine physicians with night-shift burden, emergency department crowding, and work lack of control as key risk factors.[39] Strong specialty recognition and clear, structured training pathways may support professional identity and resilience.[40,39] The EUSEM workforce reports further underline that workload, staffing shortages, and insufficient protected training time are major threats to trainee wellbeing and training programme sustainability.[22,41]

4. International Frameworks: European Society for Emergency Medicine, Union Européenne des Médecins Spécialistes, International Federation for Emergency Medicine and Global Emergency Medicine

4.1 EUROPEAN SOCIETY FOR EMERGENCY MEDICINE (EUSEM) AND NATIONAL SOCIETIES

EUSEM, founded in the mid-1990s, unites emerging national EM societies and individual clinicians under a common European umbrella.[5,24,34] Early work focused on advocacy for specialty recognition and producing the first European Core Curriculum for emergency medicine (2002, substantially expanded in 2009), articulating common competencies and rotations long before widespread primary specialty recognition.[7,8,29]

Over time, the EUSEM's role has broadened from curriculum development to congresses, research networks, workforce reports, and collaborative projects on working conditions.[41,24,34,35] National 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.[38,41,24,34,35] This evolution from an advocacy group to pan-European scientific and educational organisation, underpins the harmonisation agenda described herein.[3,5,41,24,34]

4.2 UNION EUROPÉENNE DES MÉDECINS SPÉCIALISTES SECTION AND BOARD OF EMERGENCY MEDICINE (UEMS)

Within UEMS, EM was initially represented only 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 it as a distinct specialty at European level and providing a dedicated platform for postgraduate training standards.[3,11,32]

The first UEMS ETRs for emergency medicine (2018) translated earlier EUSEM's curriculum work into a regulatory document defining minimum duration, content, supervision, and assessment.[11,32,16] The 2024 revision introduced clearer competency descriptors, strengthened expectations for paediatric emergency medicine exposure, interprofessional practice and non-technical skills, and updated guidance on final examinations and workplace-based assessment.[12,32,16]

In parallel, the UEMS EM Section and Board, collaborating with EUSEM, developed and refined the EBEEM, moving from initial blueprint to "assessment of excellence" explicitly mapped to the ETR and contemporary high-stakes assessment principles.[12,13,19,32]

4.3 INTERNATIONAL FEDERATION FOR EMERGENCY MEDICINE (IFEM): FROM MODEL CURRICULUM TO GRADUATE MEDICL EDUCATION 2025 AND ACCREDITATION

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.[42,35] These curricula were explicitly framed as adaptable templates for countries at different development stages.[42,35]

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.[43,44] IFEM has developed a model accreditation framework for training sites and continuing professional development resources, setting standards for case-mix, supervision, educational governance, and quality assurance.[43,44,45]

These developments illustrate progression from single, static curricula to an integrated global framework spanning undergraduate education, residency training, continuing professional development, and institutional accreditation, providing a reference against which European initiatives like the ETR and EBEEM can be compared.[11,32,34-40,46]

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.[47]

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.[48] Rybarczyk et al. systematically reviewed EM training programmes in low- and middle-income countries 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.[49] These findings reinforce a key proposition: competency-based frameworks such as IFEM's Graduate Medical Education curriculum and the ETR can be powerful tools but must be adapted thoughtfully to local context rather than transplanted entirely.[11,32,34-40,49,50]

European EM both shapes and learns from this global movement. European experts have been central to developing IFEM's model curricula, Graduate Medical Education 2025 recommendations, and accreditation frameworks.[34-39] 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 emergency departments, supporting the argument that European harmonisation efforts should remain outward-looking and aligned with global emergency medicine standards.[34-40,47-49]

5. Advances and Disparities in Emergency Medicine 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.[2,32,16] However, supra-specialty and hybrid models persist in several countries, with implications for specific dedicated emergency department experience versus base specialties, EM-specific curriculum depth and breadth, and cross-border mobility and ease of mutual recognition.[2,3,11,20,24,25] A recent multi-country analysis reported that incomplete emergency medicine 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.[40,51] These findings support the ETR's role as an educational framework and a vehicle for professional recognition and safe mobility within the EU/EEA.[11,32,16,52]

5.2 PAEDIATRIC EMERGENCY MEDICINE TRAINING

There remains a gap in training in paediatric emergency medicine 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.[23,32,16] A Europe-wide paediatric emergency medicine training survey reported that paediatric emergency medicine time ranged from only one to 11 months in most countries, with wide variation in paediatric resuscitation and critical care exposure.[23] 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 paediatric emergency medicine training access.[35,53]

Simulation-based medical training is widely valued but unevenly available, particularly for high-acuity emergency scenarios.[35] Structured, simulation-based paediatric emergency medicine curricula can address gaps but require protected time, faculty expertise, and institutional support to be sustainable.[35,53] The ETR's explicit paediatric requirement is a major harmonising mechanism, likely driving increased paediatric emergency medicine rotations, dedicated paediatric emergency department placements, and expanded simulation use across Europe.[23,32,16]

5.3 EDUCATIONAL METHODS AND ASSESSMENT

Competency-based education, workplace-based assessment, and simulation adoption is heterogeneous across European 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.[20,24-26,24,25,53] Some supra-specialty or hybrid systems continue relying predominantly on time-based training and end-of-rotation reports, with limited Entrustable Professional Activity formalisation, feedback structures, or simulation-based assessment.[2,3,20,24,36]

The 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, objective structured clinical examinations, simulation, and portfolio-based systems.[11,32,16]

Across Europe, assessment approaches range from comprehensive national systems (e.g. FRCEM) to

locally defined portfolios and institutional exit exams.[20,24-28] 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 the EBEEM.[38,19,32,24,51]

5.4 WORKFORCE AND WELLBEING

Workforce constraints remain central. Eurostat and World Health Organization 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.[54,55] These disparities, combined with population ageing and rising unscheduled care demand, contribute to chronic emergency department crowding and staffing pressures.[41,22,52,54]

Burnout and psychological distress among emergency medicine 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.[51] 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.[41,22,56]

Harmonised, robust training standards cannot alone solve workforce shortages but can strengthen emergency medicine's professional status, support recruitment and retention, and provide frameworks for safer staffing, supervision, and educational governance.[11,41,32,40,34,52]

6. The European Training Requirements (ETR) as a Harmonisation Framework

The ETR, developed by the UEMS Section and Board in collaboration with EUSEM, now function as the central European emergency medicine training framework.[11,32,16,56] 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 emergency medicine and professional roles.[11,12,32,16,57,58]

Conceptually, the ETR describes the EM clinician's development from novice requiring direct supervision to fully entrusted specialist capable of independent practice.[32,57,59] It explicitly links competency-based medical education to progressive entrustment, using Entrustable Professional Activities and CanMEDS-style professional roles (communicator, collaborator, leader, scholar) to frame clinical and non-clinical capabilities.[32,57-59] Importantly, the document addresses the whole training system defining expectations not only for trainees but also for training sites, trainers, supervision structures, and governance.[32,16,57]

The ETR describes key elements: at least five years of emergency medicine-relevant training after internship; broad curriculum content covering resuscitation, acute medical and surgical emergencies, major trauma, paediatric emergency medicine, critical care, toxicology, pre-hospital care, and non-clinical domains; mandatory paediatric exposure (minimum 20% of training time); competency-based progression with Entrustable Professional Activities; structured supervision and feedback; and comprehensive assessment including final summative examinations.[11,32,16,23,57]

It's endorsement by all EUSEM's national societies and UEMS specialties underscores its legitimacy as a harmonising tool.[13,60]

7. The European Board Examination in Emergency Medicine (EBEEM)

The European Board Examination in Emergency Medicine (EBEEM), jointly administered by the EUSEM and UEMS Section and Board of Emergency Medicine, assesses whether candidates have attained ETR-level competencies for independent specialist practice.[19,51,32,61-63]

Part A is a multiple-choice question examination testing knowledge across the ETR curriculum; Part B

is a practical assessment using objective structured clinical examinations and simulation scenarios evaluating clinical reasoning, procedural skills, communication, and non-technical competencies.[19, 62,63] Successful completion of both parts awards the Fellowship of the European Board of Emergency Medicine (FEBEM). As pan-European specialist-level competence certification aligns directly with the ETR.[51,61-63]

The examination is increasingly delivered in remote or hybrid formats, improving access across Europe and international.[62-63] From a professional perspective, it serves multiple roles. For individual clinicians, it provides an externally validated European credential signalling European Curriculum and Training standards-level specialist competence attainment and enhancing competitiveness for consultant posts and academic positions.[19,51,62-63] It offers structured self-assessment and benchmarking, enabling candidates to gauge progress against a Europe-wide standard and to identify further development areas.[19,62-63]

At a systems level, EBEEM offers regulators, national societies, and employers a shared quality reference point, particularly in settings lacking robust national exit examinations.[12,19,51,32,62]

In Malta, it uses full EBEEM (Parts A and B) as the official emergency medicine specialty training exit exam, and Flanders (Belgium) uses Part A as the emergency medicine and emergency medicine supra-specialty exit exam theoretical component.[19,62,64] In most other countries, the examination is recognised as postgraduate assessment and quality mark, but not directly linked to licensure or specialist registration.[62-63]

7.1 RELATIONSHIP WITH NATIONAL EXAMINATIONS

The EBEEM is explicitly designed to complement, not replace, national examinations required for training completion or specialist register entry.[19,51, 62-63] In Ireland, for example, the IAEM and Irish Committee for Emergency Medicine Training specify that National Emergency Medicine Training Programme completion requires the RCEM Membership of the Royal College of Emergency Medicine (MRCEM) and Fellowship of the Royal College of Emergency Medicine (FRCEM) examinations. The FRCEM is mandatory for Irish Medical Council specialist register entry in emergency medicine, while the EBEEM is a valued European credential rather than regulatory equivalent.[65,24,62]

In countries with developing training programs; those that lack national exit exams or transitioning from supra-specialty models, the 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.[12,19,51,32,24,62]

This diversity of use reflects both harmonisation strengths and political realities: the European Board Examination therefore 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.[3,11,20,24,25,62]

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' responsibility.[51,32,62-63] Uptake across Europe is heterogeneous, with only a small number of countries making the European examination compulsory as exit exam, and variable awareness and engagement among trainees, trainers, and programme directors.[41,24,51,63,66]

EBEEM has been developed in line with Council of European Specialist Medical Assessments (CESMA) recommendations but has not yet undergone full Council of European Specialist Medical Assessments inspection and formal recognition.[51,32,62,67] Securing formal CESMA recognition would substantially enhance credibility and represent a vital milestone

in consolidating it's role as a benchmark examination for European EM training.[51,32,62,67]

For EBEEM to fulfil its harmonisation potential, broader engagement is needed: national authorities and training bodies must consider how the examination or -aligned models can integrate with local curricula, exit examinations, and accreditation processes, and trainees must see it as relevant to their career trajectories.[11,41,32,40,24,51,62] Involvement by all national competent authorities in the examination'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 the Emergency Medicine Examination Reference Group for Europe (EMERGE) and Young Emergency Medicine Doctors Section, recently synthesised young emergency medicine 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 emergency medicine's discipline credibility.[68,69] Importantly, they note that standardised frameworks and examinations explicitly including EBEEM can facilitate professional mobility and mutual recognition within the EU.[19,32,62,68]

The earlier EUSEM's Young Emergency Medicine Doctors Section-European Junior Doctors survey emphasised substantial variation in training conditions, supervision, access to teaching, and formal final examination presence or absence.[38] 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.[38,41,20]

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.[38,19,32,62,68]

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, emergency medicine is not yet recognised as a primary specialty but remains embedded within other disciplines, leading to fragmented training pathways and variable emergency medicine specialist identity.[2,3,20,24,25,51,68]
- Procedural and paediatric exposure: Previous European surveys showed paediatric emergency medicine exposure ranging from only one to 11 months in many programmes; the 2024 ETR responded by mandating at least 20% of minimum emergency medicine training time in paediatric emergencies.[23,32,16,68]
- Assessment inconsistency: While the 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.[38,19,20,32,24,62,68]
- Training centre accreditation and capacity: The ETR and IFEMs 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.[11,32,34,43,44,68]
- Mobility and recognition: 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.[11,20,32,40,24,51,62,68]

- 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.[38,41,22,39,51,68]

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.[38,19,32,40,44,62,68]

9. Europe, Low- and Middle-Income Countries and Mutual Learning

Global emergency medicine literature indicates that developing emergency care systems in low- and middle-income countries can yield substantial health gains at relatively modest cost, as a large share of deaths arises from time-sensitive, amenable emergency interventions.[47,48] Training programmes in low- and middle-income countries 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.[49]

Recent research-priority setting for low- and middle-income countries emergency care emphasises interdisciplinary collaboration, context-specific training, and pragmatic quality improvement rather than simple high-income model transfer.[50] IFEMs 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.[43,70]

European EM sits within and contributes to this global movement. The emergency medicine ETR and European curriculum, aligned with IFEM model curricula and emerging IFEM's Entrustable Professional Activities (EPAs), can inform low- and middle-income countries curriculum development while being adapted to local health-system realities.[11,34-36,44,50] 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 intensive care unit beds, and chronic staff shortages—challenges shared by many European emergency departments.[70,49,50]

10. Future Directions and Recommendations

10.1 COMPETENCY-BASED AND ENTRUSTABLE PROFESSIONAL ACTIVITY-INFORMED TRAINING

The updated ETR emphasis on roles and progressive entrustment aligns with the broader shift towards competency-based medical education.[32,57,59] IFEM's work on EPAs provides a complementary international framework, defining core EPA's required for safe independent practice.[43,44]

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-clinical evaluation exercise, direct observation of procedural skills) which are aligned with those EPAs; and offering faculty-development programmes on competency-based medical education, feedback, and EPA implementation through EUSEM/Young Emergency Medicine Doctors Section courses.[32,34,43,59,68]

10.2 OPERATIONALISING THE PAEDIATRIC EMERGENCY MEDICINE 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 emergency departments, integrated mixed emergency departments, or regional training hubs, combined with structured paediatric emergency medicine curricula and simulation-based training.[23,32,35,53]

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.[35,53,71] Countries with developed paediatric emergency medicine services (Ireland, UK) can support others through regional fellowships, shared teaching resources, and collaborative EUSEM section courses.[23,24-26,53]

10.3 INTEGRATING EUROPEAN BOARD EXAMINATION IN EMERGENCY MEDICINE INTO NATIONAL TRAINING FRAMEWORKS

EBEEM's harmonising potential will be maximised if more deliberately integrated into national training systems while respecting local regulation.[12,19,51,32,24,62] Practical options include recognising it as an additional completion-of-training quality marker; aligning national end-of-training examinations more closely with the ETR and EBEEM blueprints so preparation is synergistic; and using anonymised, the aggregated examination performance data for programme evaluation and curriculum review.[20,32,24-28,62-63]

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 the EBEEM functions as a complementary European credential.[65,24,44,62] Specialists 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 the examination this implies maintaining remote or regional examination formats, considering bursaries for lower-resource setting candidates, and ensuring transparent cost and eligibility communication.[62-63,68]

EUSEM and national societies can support equity by expanding open-access educational resources (e.g., European Society for Emergency Medicine Academy, podcasts, online courses) explicitly aligned with ETR and EBEEM blueprints, reducing commercial preparation tool dependence.[41,34,44,63] 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.[41,20,24,34,43,49,68]

To visually illustrate the diversity in training durations across selected European countries, Figure 1 presents a bar chart based on data from Table 1.

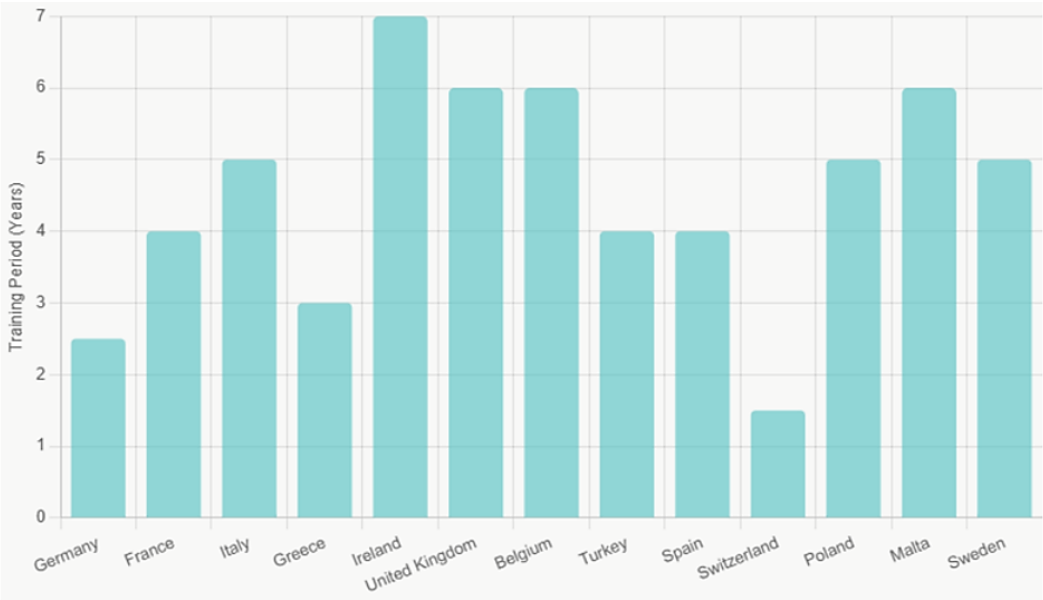

Figure 1

11. Discussion

Europe is closer than ever to meaningful EM training harmonisation, but the picture remains uneven.[2,3,11,41,20,32,24,25,22] Most countries recognise EM as a specialty and many operate robust, outcome-based programmes delivering broad acute-care exposure, structured assessment, and strong professional identity, exemplified by the IAEM/ RCSI NEMTP and the RCEM curriculum models.[2,3,11,41,20,32,24-28,57] Yet significant disparities persist, particularly in recognition status, paediatric emergency medicine exposure, assessment structures, and working conditions, especially in supra-specialty or emerging systems.[2,3,11,41,20,23,40,34,53]

The unanimous adoption of the EM ETR by other UEMS specialities provides a unifying, authoritative framework for duration, scope, and outcomes, while the European Board Examination (EBEEM) offers a pan-European, ETR-aligned benchmark for exit-level competence.[11,12,19,29-32,57,62-63] Trainee networks such as Young Emergency Medicine Doctors Section/ Emergency Medicine Examination Reference Group for Europe and national surveys document variability and call for more transparent, comparable standards, showing harmonisation is a shared priority for leaders and learners.[38,41,40,34,39,51,68]

Several strategic harmonisation pathways are apparent. Progressive European Training Requirements 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.[2,3,11,20,32,24,25,57] Aligning national exit examinations more closely with ETR and the Board Examination blueprints can enhance qualification portability and mutual recognition without displacing national regulatory authority.[20,32, 24-28,62-63]

Training centre accreditation, with minimum expectations for case-mix, supervision ratios, paediatric emergency medicine exposure, and simulation capacity, is essential to translate paper standards into consistent training quality.[11,23,32,34,43,44,53] Strengthening trainee voice through structured feedback and EUSEM/UEMS representation responds to evidence that young emergency medicine doctors want fair, transparent, workload and wellbeing-attentive harmonisation, not top-down imposition.[38,41,40,34,39,51,68]

Long standing national programmes like those described earlier curriculum illustrate how these systems which already embody many ETR principles and can provide practical exemplars for countries developing emergency medicine de novo or transitioning from supra-specialty models.[20,24-28,57] They can themselves benefit from more engagement in the European programme by explicitly mapping curricula to the updated European Training Requirements; contributing as examiners, developing questions, and providing standard-setting expertise to the EBEEM; and drawing on innovations from other systems (Nordic competency-based medical education and supervision models, French simulation-rich curricula, Turkish high-volume resuscitation exposure) to refine their own practice.[20,32,24,25,44,25,33,35,62,68]

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 (Fellowship of the European Board of Emergency Medicine), offers programmes and regulators a shared external benchmark, and, in a few countries, already functions as an official or partial exit examination.[12,19,51,32,24,62-63] Important barriers though remain. In some countries, emergency medicine is still not recognised as a full specialty.[2,3,11,41,20,32,24,25]

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.[41,20,24,34,43,35,49,68] Workforce pressures and limited protected educational time threaten competency-based and Entrustable Professional

Activity-based curricula feasibility, while uneven EBEEM uptake and lack of formal Council of European Specialist Medical Assessments (CESMA) recognition currently limit full acceptance as a "gold-standard" European exam.[41,40,34,39,51,62,67]

National societies remain the key constructive change agents. They are best placed to lead ETR-aligned curriculum revision, the European Board Examination, advocate for specialty recognition and resources, build simulation, leadership, and research capacity, and ensure trainee participation.[41, 41,20,24,34,35,68] They also need visible presence in ongoing European instrument evolution through the ETR's revision group representation, IFEM and EUSEM's education committee participation, and active EBEEM examiner and question writer involvement so that the European Curriculum, Training Requirements and Board Examination in Emergency Medicine remain ambitious, credible, and truly representative of European EM practice diversity.[11,12,32,24,34,43,44,57,62,68]

Beyond these internal mechanisms, the authors' perspective emphasises that true harmonisation must address broader systemic factors, such as integrating global lessons from low- and middle-income countries to innovate in resource-constrained European settings,[47-50] and leveraging data from surveys like those in Figure 1 to advocate for policy changes at the EU level. This not only bridges disparities but also positions European emergency medicine as a leader in global standards, ultimately improving patient outcomes through consistent, high-quality care.

12. Conclusion

Emergency medicine in Europe has matured from its early, fragmented state to a robust independent essential frontline speciality. Most countries now recognise emergency medicine as a specialty, and many operate robust, European Training Requirements-aligned programmes delivering broad acute-care exposure, structured assessment, and strong professional identity, exemplified by some longstanding programmes. [2,3,11,41,20,32,24-28,57]

Yet significant disparities persist, particularly in recognition status, paediatric emergency medicine exposure, assessment structures, and working conditions, especially in supra-specialty or emerging emergency medicine systems.[2,3,11,41,20,23,40,34,53]

The emergency medicine European Training Requirements and European Board Examination in Emergency Medicine 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.[11,12,19,29-32,57,62-63]

Trainee perspectives from Young Emergency Medicine Doctors Section, EMERGE, and national surveys show clear support for standardised training and examinations enhancing fairness, mobility, and emergency medicine's perceived legitimacy, while emphasising that implementation must account for workload, supervision, and resource constraints.[38,41, 40,34,39,51,62,68]

If European EM leaders, national societies, trainees, and global partners can use these tools constructively supporting programmes' countries and those still developing emergency medicine, engage as contributors and examiners in the curriculum development, enhance Training Requirements, contribute actively to the quality, assurance and review of European Board Examination in Emergency Medicine processes, and remain open to mutual learning from Nordic, French, Turkish, low- and middle-income countries, and other experiences; patients across Europe should increasingly be cared for by emergency physicians trained to common, high standards.[11,41,20,32,40,24,34,34,44,57,62,68]

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.[41,20,23,34,39,43,44,47-50,70]

Conflicts of interest:

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

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