

Appendix A: Review of the recognition process and impact in eight different countries

Country (sources)	When was SR achieved?	Why was SR achieved?	How was SR achieved?	Immediate impact of SR	Impact 5 years after SR	Current state of the workforce
USA (1-3)	1979	b	i	m	m	t; v
Romania (4-6)	1999*	a; b; f	h	l	o; p; r	t; u; w; y
Belgium (7-11)	2005	a; b	g	j; k; l	o; p	t; u; w; y
Italy (12-16)	2009	a; b; d; f	g	l	o; q	t; u
Israel (17-21)	2012**	b; c; d; f	g	m	o	u; v
Netherlands (22-26)	2023	a; d	g	l; n	m; q; s	t; x
Portugal (27-30)	2024	b; d; e	g; i	m	-	-
Spain (31-32)	2024	b;d	i	k; l	-	-

SR: specialty recognition

*1993: 3-year program; 1999: 5-year program; ** 1999: subspecialty; 2012: full specialty

Why was specialty recognition achieved? a) growing complexity of patients b) increased need for specialized/standardized/qualitative EM care and augmented efficiency c) uniqueness of work d) need for standardization of training e) derived benefits (management, research, public health, disaster medicine) f) social aspects (role, socio-political opportunity)	Impact 5 years after specialty recognition m) training opportunities o) improvement of working conditions (resources, staffing, training) p) high levels of stress q) recognition of EM professionals' contribution to patient care and increased patient satisfaction r) formal legislative recognition s) nationwide standardization of protocols and guidelines
How was specialty recognition achieved? g) concerted efforts by pioneering EM physicians, alongside government and national professional societies h) concerted efforts by pioneering physicians, alongside international support i) Collaboration and advocacy of community physicians in the setting of increasing demand for hospital-based care	Current state of the workforce t) high demand and pressure (due to patient volume and complexity, staffing shortages, increased boarding time, shortcomings of primary care, financial incentives) u) burnout v) standards of training w) ongoing need for addressing overall wellbeing of EPs x) ongoing need for interdisciplinary collaboration y) lack of research engagement
Immediate impact of specialty recognition j) job security k) professional respect l) improved quality of care and support systems m) training opportunities n) diminished workload for other specialties	

Overview of unique contributing factors and circumstances

In the USA , EM is well-established, with over 45 years of recognition, 1500 new EPs yearly and 16 different subspecialties. The rising involvement of for-profit entities in ED management creates significant conflicts in patient care.	In Israel , the 1991 Gulf war was a catalyst to the establishment of the Israeli Association of Emergency Medicine, promoting recognition. Today, the National Israeli Course of Emergency Medicine helps maintain a high standard of training.
In Romania , the 1989 fall of communism created an opportunity for EM development in both pre- and in- hospital settings.	In the Netherlands , EM development was a collaborative effort based on international models. Recognition brought standardization of protocols and guidelines and increased patients' trust in the system.
In Belgium , EM recognition was made possible through the work of pioneering EPs and brought a significant improvement in working conditions. Burnout remains a major issue	Portugal achieved EM recognition in September 2024. They plan to start training EM specialists in 2025.
In Italy , the ED plays a crucial role in filling gaps in the primary care and social support systems.	In Spain , recent recognition brought an immediate boost in physicians' sense of wellbeing.

References:

1. Suter RE. Emergency medicine in the United States: a systemic review. World J Emerg Med. 2012;3(1):5–10.
2. Merritt AK. The Rise of Emergency Medicine in the Sixties: Paving a New Entrance to the House of Medicine. J Hist Med Allied Sci. 2014 Apr 1;69(2):251–93.
3. Huecker MR, Shreffler J, Platt M, O'Brien D, Stanton R, Mulligan T, et al. Emergency Medicine History and Expansion into the Future: A Narrative Review. West J Emerg Med. 2022 May;23(3):418–23.
4. Arafat R. Evolutia si organizarea Sistemului integrat de urgenta din Romania [Internet]. 2019 [cited 2024 Nov 26]. Available from: https://media.dcnews.ro/other/202204/evolutia-si-organizarea-sistemului-integrat-de-urgenta-din-romania_nancycaroline_26218800.pdf
5. Puticiu M, Grecu MB, Rotaru LT, Butoi MA, Vancu G, Corlade-Andrei M, et al. Exploring Burnout, Work Addiction, and Stress-Related Growth among Prehospital Emergency Personnel. Behav Sci Basel Switz. 2024 Sep 22;14(9):851.
6. Mureșan EM, Golea A, Bolboacă SD, Perju-Dumbravă L. Feasibility of a pilot study on point-of-care biomarkers in spontaneous intracerebral hemorrhage in an emergency setting. Med Pharm Rep. 2021 Jul;94(3):307–17.
7. Van den Heede K, Ghesquiere A, Misplon S, Quentin W, Loon CV. Organisation and payment of emergency care services in Belgium: current situation and options for reform. 2016;
8. Stroobants J, Arafat R, Leach R, Halpern P, Golea A, Heyworth J, et al. Cooperation in emergency medicine in Europe: the bright side of the medal. Eur J Emerg Med Off J Eur Soc Emerg Med. 2018 Feb;25(1):1–2.
9. Somville F. Burnout among emergency physicians : from detection to prevention [Internet]. University of Antwerp; 2024 [cited 2024 Sep 15]. Available from: <https://hdl.handle.net/10067/2052510151162165141>
10. Somville F, Van der Mieren G, De Cauwer H, Van Bogaert P, Franck E. Burnout, stress and Type D personality amongst hospital/emergency physicians. Int Arch Occup Environ Health. 2022 Mar 1;95(2):389–98.
11. Somville F, Van Bogaert P, Wellens B, De Cauwer H, Franck E. Work stress and burnout among emergency physicians: a systematic review of last 10 years of research. Acta Clin Belg. 2024 Jan 2;79(1):52–61.
12. DECRETO DEL PRESIDENTE DELLA REPUBBLICA 10 dicembre 1997, n. 484 - Normattiva [Internet]. [cited 2024 Dec 11]. Available from: <https://www.normattiva.it/uri-res/N2Ls?urn:nir:presidente.repubblica:decreto:1997-12-10;484>

13. Ministero della Salute [Internet]. 1998 [cited 2024 Dec 11]. Available from: <https://www.quotidianosanita.it/allegati/allegato1662036999.pdf>
14. Coen D, Casagrande I, Cavazza M, Cervellin G, Ghiadoni L, Lerza R. Facing the Emergency Department crisis in Italy. *Emerg Care J* [Internet]. 2021 Dec 20 [cited 2024 Dec 11];17(4). Available from: <https://www.pagepressjournals.org/ecj/article/view/10331>
15. Piazza I, Barcella B, Cascio M, Group C. A national survey of Italian emergency medicine residents: it's time to stay and play. *Emerg Care J* [Internet]. 2024 Jun 18 [cited 2024 Dec 11];20(2). Available from: <https://www.pagepressjournals.org/ecj/article/view/12671>
16. Cascio M, Barcella B, Zaccaria G, Piazza I, Group C. Italian Emergency Medicine residents' perspectives. *Emerg Care J* [Internet]. 2022 Sep 27 [cited 2024 Dec 11];18(3). Available from: <https://www.pagepressjournals.org/ecj/article/view/10870>
17. Halpern P, Waisman Y, Steiner IP. Development of the specialty of emergency medicine in Israel: comparison with the UK and US models. *Emerg Med J EMJ*. 2004 Sep;21(5):533–6.
18. Waisman Y, Amir L, Or J. Emergency medicine in Israel: state of the art. *Ann Emerg Med*. 1995 Nov;26(5):640–2.
19. Drescher MJ, Aharonson-Daniel L, Savitsky B, Leibman J, Peleg K. A study of the workforce in Emergency Medicine in Israel: 2003. *J Emerg Med*. 2007 Nov;33(4):433–7.
20. Drescher MJ, Wimpfheimer Z, Darawsha A, Sullivan R, Goral A, Aharonson-Daniel L. A study of the workforce in emergency medicine in Israel 2012: what has changed in the last decade? *Int J Emerg Med*. 2015 Dec;8(1):47.
21. Shopen N, Tshuva R, Drescher MJ, Glatstein M, Cohen N, Coral R, et al. The Evolution of Board-Certified Emergency Physicians and Staffing of Emergency Departments in Israel. *West J Emerg Med Integrating Emerg Care Popul Health* [Internet]. 2024 Jun 14 [cited 2024 Nov 24];25(4). Available from: <https://escholarship.org/uc/item/1m5476t8>
22. Emergency medicine in the Netherlands - Holmes - 2010 - Emergency Medicine Australasia - Wiley Online Library [Internet]. [cited 2024 Oct 12]. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1742-6723.2009.01259.x>
23. Windget P. Eusem - Breaking news: Emergency Medicine Takes a New Turn in the Netherlands [Internet]. [cited 2024 Dec 11]. Available from: <https://eusem.org/news/919-breaking-news-emergency-medicine-takes-a-new-turn-in-the-netherlands>
24. Kleijne I. Spoedeisende geneeskunde alsnog erkend als specialisme [Internet]. 2023 [cited 2024 Dec 11]. Available from: <https://www.medischcontact.nl/actueel/laatste-nieuws/nieuwsartikel/spoedeisende-geneeskunde-alsnog-erkend-als-specialisme>
25. Kleijne I. SEH-arts erkend als medisch specialist – wat betekent dat? [Internet]. 2023 [cited 2024 Dec 11]. Available from: <https://www.medischcontact.nl/actueel/laatste-nieuws/artikel/seh-arts-erkend-als-medisch-specialist-wat-betekent-dat>
26. Ikkersheim DE, van de Pas H. Improving the quality of emergency medicine care by developing a quality requirement framework: a study from The Netherlands. *Int J Emerg Med*. 2012 May 23;5(1):20.
27. Torres RRG. Outcomes of having a nationwide specialty in Emergency Medicine. 2020 [cited 2024 Nov 29]; Available from: <https://repositorio-aberto.up.pt/bitstream/10216/128504/2/412107.pdf>
28. The Portuguese Medical Association approves Emergency Medicine specialty [Internet]. 2024 [cited 2024 Dec 11]. Available from: <https://www.portugalpulse.com/the-portuguese-medical-association-approves-emergency-medicine-specialty/>
29. Kaur D. Eusem - Congratulations to Portugal on the Approval of the Specialty of Emergency Medicine [Internet]. [cited 2024 Dec 11]. Available from: <https://eusem.org/news/974-congratulations-to-portugal-on-the-approval-of-the-specialty-of-emergency-medicine>
30. UHPR National Secretariat. National Report of Portugal: Universal Health and Preparedness Review (UHPR) Pilot [Internet]. Lisbon; 2022 [cited 2024 Dec 11]. Available from: https://apps.who.int/gb/MSPI/pdf_files/2023/12/Item2_19-12.pdf
31. Ministerio de la Presidencia, Justicia y Relaciones con las Cortes. Real Decreto 610/2024, de 2 de julio, por el que se establece el título de Médica/o Especialista en Medicina de Urgencias y Emergencias y se actualizan diversos aspectos en la formación del título de Médica/o Especialista en Medicina Familiar y Comunitaria [Internet]. Sect. 1, Real Decreto 610/2024 Jul 3, 2024 p. 82078–89. Available from: <https://www.boe.es/eli/es/rd/2024/07/02/610>
32. Redacción. Médicos y Pacientes - Portal informativo de la Organización Médica Colegial. 2024 [cited 2024 Nov 24]. La creación de la especialidad de Urgencias y Emergencias, un paso adelante. Available from: <https://www.medicosypacientes.com/articulo/la-creacion-de-la-especialidad-de-urgencias-y-emergencias-un-paso-adelante/>