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## COMMENT

## Comparison of thoracic surgery training in the Iberian Peninsula: A call for European uniformity

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Dear Editor,

As final-year Thoracic Surgery residents, one trained in Spain and the other in Portugal, we aim to share a comparative reflection on our respective training programs,<sup>1,2</sup> and highlight the need for standardization at a European level.

Just for context, in Portugal, Thoracic Surgery was part of the Cardiothoracic Surgery specialty until 2011, when the training plans of thoracic and cardiac surgery were revised, and two different residencies were created. However, most thoracic surgeons are still integrated in cardiothoracic services. Conversely, in Spain, Thoracic Surgery has been recognized as an independent medical specialty since 1978.

In both countries, Thoracic Surgery residency lasts for five years, but there are significant differences regarding the focus and diversification of training. Both programs cover a broad spectrum of knowledge and skills, from diagnostic skills to different surgical techniques. Practical training is a fundamental pillar in the professional development of a resident, however, there are significant differences in the minimum number of required/recommended surgical procedures or endoscopic examinations that should be performed by the resident.

Spain:

- Major Surgeries: Must perform 20 major surgery interventions, including lung, chest wall, pleural, tracheal, mediastinal, esophageal, and diaphragmatic resections.
- Minor Surgeries: Must perform 40 minor surgery interventions, such as lung and pleural biopsies or pneumothorax treatment.
- Thoracic Endoscopic Examinations: Must perform 40 thoracic endoscopic examinations, including fibrobronchoscopy, thoracoscopy, and mediastinoscopy.

Portugal:

- Major Surgeries: Must perform 100 major surgeries (specific types of surgical interventions are not described).
- Minor Surgeries: Must perform 200 minor surgeries, including specific diagnostic explorations of the specialty.

Not only are there notable differences in the specific required/recommended procedures, but also in the evaluation criteria, the monitoring of the resident's progress, and even the training rotations during the residency program, which can directly influence the skills developed by the resident in each country.

In Spain, the training approach is more diversified with recommended rotations in multiple specialties over the five years (General Surgery, Pulmonology, Intensive Medicine, Vascular Surgery, and Cardiac Surgery) while in Portugal, the intensive training period in Cardiology and Cardiac Surgery is noteworthy (Table 1).

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**Table 1** Main differences in thoracic surgery training between Portugal and Spain<sup>1,2</sup>.

	Portugal <sup>2</sup>	Spain <sup>1</sup>																										
Formative Locations	5 hospitals with total formative suitability 1 hospital (Oncology Hospital) with partial formative suitability 1 Lung Transplant Center	41 hospitals with total formative suitability 8 Lung Transplant Centers																										
Residency Program	General Residency (1 year)	No General Residency																										
	<table><tr><td>Rotation</td><td>Duration</td></tr><tr><td>General Surgery</td><td>3 months</td></tr><tr><td>Primary Care</td><td>3 months</td></tr><tr><td>Internal Medicine</td><td>4 months</td></tr><tr><td>Paediatrics</td><td>2 months</td></tr></table>	Rotation	Duration	General Surgery	3 months	Primary Care	3 months	Internal Medicine	4 months	Paediatrics	2 months																	
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	Thoracic Surgery Residency (5 years)	Thoracic Surgery Residency (5 years)																										
	<table><tr><td>Rotation</td><td>Duration</td></tr><tr><td>General Surgery</td><td>12 months</td></tr><tr><td>Cardiac Surgery</td><td>12 months</td></tr><tr><td>Pulmonology</td><td>4 months</td></tr><tr><td>Cardiology</td><td>2 months</td></tr><tr><td>Thoracic Surgery</td><td>30 months</td></tr></table>	Rotation	Duration	General Surgery	12 months	Cardiac Surgery	12 months	Pulmonology	4 months	Cardiology	2 months	Thoracic Surgery	30 months	<table><tr><td>Rotation</td><td>Duration</td></tr><tr><td>General Surgery</td><td>3 months</td></tr><tr><td>Pulmonology</td><td>10 months</td></tr><tr><td>Intensive care</td><td>2 months</td></tr><tr><td>Peripheral Vascular Surgery</td><td>2 months</td></tr><tr><td>Cardiovascular Surgery</td><td>2 months</td></tr><tr><td>Thoracic Surgery</td><td>39 months</td></tr></table>	Rotation	Duration	General Surgery	3 months	Pulmonology	10 months	Intensive care	2 months	Peripheral Vascular Surgery	2 months	Cardiovascular Surgery	2 months	Thoracic Surgery	39 months
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Required/Recommended Procedures	— Final exam	No final exam																										
	Required procedures: — At least 100 major procedures as surgeon. — At least 200 minor procedures as surgeon.	Recommended procedures: — At least 20 major procedures as surgeon. — At least 40 minor procedures as surgeon. — At least 40 thoracic endoscopic examinations.																										

Another significantly different aspect in the residency programs is that, in Portugal, each year, at a national level, the residents that have finished residency in the previous year, undergo a final exam (theoretical and practical exams and discussion of their curriculum vitae) that confers on them the degree of Specialist in Thoracic Surgery. In contrast, in Spain, no final exam is needed to confer this degree. This issue could be addressed, for example, by the definition of a Board of Thoracic Surgery Exam, as a necessary residency final exam to confer the degree of specialist in Thoracic Surgery at European level and standardize the evaluation. At the moment, there are two Thoracic Surgery European Board Exams available, one from the European Association for Cardio-Thoracic Surgery (EACTS), entitled *European Board of Cardiothoracic Surgery* (subdivided in Thoracic and Cardiac), and other from the Union Européenne des Médecins Spécialistes (UEMS), entitled *UEMS Board of Thoracic Surgery Exam*. To the best of our knowledge, a joint effort is already being made by these two societies in order to create one single exam that will replace their own individual exams. We certainly support and encourage this initiative.

Regarding lung transplantation programs, the landscape is different between the two countries. With a population of around 10.5 million, Portugal has one center of lung transplantation, which performed 43 lung transplants in 2023. In Spain there are 8 lung transplant centers, serving a population of around 47.5 million and, in 2023, 479 lung transplants were performed. Residents of these centers are actively involved in lung harvesting and implantation, as well as peri-operative management of these patients. In order to bridge this gap and seek some lung transplant experience, residents from other hospitals may rotate in these centers. Fortunately, Portuguese residents have had the opportunity to rotate in these Spanish centers with higher volume and more experience.

This comparison, while reflecting the cultural diversity and specific features of each country's health systems, leads

us to agree on the urgent need to seek uniformity in training at European level.

This standardization in specialized training would not only ensure a high level of competence among professionals, with a minimum set of skills and knowledge common to all thoracic surgeons, regardless of their country of origin, but would also significantly contribute to improving the quality of care by promoting cohesion, and clinical and research collaboration among healthcare professionals in the European and international context.

It is important to note that, in the Iberian Peninsula, the main societies representing thoracic surgeons, the Portuguese Society of Cardiac, Thoracic, and Vascular Surgery (SPCCTV) and the Spanish Society of Thoracic Surgery (SECT), have agreed to jointly organize biennially the Iberian Congress of Thoracic Surgery. This demonstrates a willingness to work together and combine efforts to advance in the training and practice of thoracic surgery.

In summary, we firmly believe in the need to work towards a standardization of training programs in Thoracic Surgery, a measure that would benefit both the medical community and patients, marking a significant advance towards the pursuit of high-quality specialized medical care at a global level.

We appreciate your attention and hope that this constructive reflection contributes to the advancement of training in this specialty.

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