



Respiratory training in Spain

Respiratory medicine is a varied specialty that encompasses a broad spectrum of diseases, specific diagnostic and treatment techniques, and both critical and chronic care patients. However, while in some countries is one of the most competitive specialties to get into, in Spain is one of the less popular options.

Access to the speciality has been *via* the competitive “internal resident doctor” exam (MIR) for the past 30 years. This takes place immediately after medical school and, in most cases, the criteria to choose one specialty over the others is only based on textbooks and some clinical practice during your time at university. Fortunately, for those who could glimpse the attraction of the specialty during our student years, respiratory medicine does not disappoint.

The Spanish National Health System offers 100 respiratory positions every year in different hospitals across Spain. The training programme lasts 4 years, during which the trainee has to rotate through all the specific respiratory departments as well as the most respiratory-related departments. Usually, the whole training programme takes place in the same hospital although external rotations are often permitted and recommended. On-call shifts are undertaken in internal medicine emergencies during the first year and, in some hospitals, the resident has specific respiratory on-call shifts during the final 2 or 3 years of training.

During the first 12 months a solid background in internal medicine is acquired. The purpose of this first year is to gain wide experience of the medical fields that are most related to respiratory diseases, such as cardiology, infectious diseases and the emergency department. This first stage also includes training in thoracic radiology and thoracic surgery.

Usually, during the second year the resident gets clinical experience in the respiratory ward. These first months working as a respiratory resident are often the hardest, but are also when the trainee is most eager to learn. In the ward, the resident learns to manage the most frequent situations, *e.g.* asthma or chronic obstructive

pulmonary disease exacerbations, cystic fibrosis, pulmonary embolism and the diagnostic process for lung cancer or interstitial lung diseases. This training provides the opportunity for in-depth exposure to patients with a diversity of pulmonary disorders under the supervision of consultants.

A few hospitals in Spain have a lung transplantation unit where the trainee can learn about lung transplant complications and rare conditions that lead to lung transplantation such as alveolar proteinosis or lymphangioleiomyomatosis. In some centres, ventilator-dependent patients are taken care of on the ward; in others there are specific semi-critical care units lead by respiratory physicians. If the on-call shifts continue to take place in the internal medicine department, this second year is the time when the trainee becomes more independent but still doesn't have sole responsibility. However, the beginning of respiratory on-call shifts brings excitement and sometimes more comfortable nights.

During the final 2 years the respiratory resident has to learn all the different specific techniques. This includes 3–4 months in the pulmonary function testing laboratory, and 4–6 months focused on bronchoscopies and other procedures essential to the practice of respiratory medicine. Finally, a rotation in sleep medicine can be undertaken. Some diagnostic techniques such as thoracic ultrasound are being implemented more and more frequently in respiratory departments, while other procedures like thoracic tube insertion or pleural biopsies are less commonly performed by pneumologists in hospitals with a thoracic surgery service.

At some point the trainee has a rotation in the intensive care unit (ICU) or a respiratory critical care unit, this is usually at the end of the residency and can be complemented with ICU on-call shifts. During this period, the resident is already a senior during the emergency room on-call shifts and has to supervise the first and second year residents.

Although there is an official respiratory training programme established by the Spanish Ministry of Health with core rotations and abilities that

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the trainee should gain, each community can adjust it. As an example, the respiratory on-call shifts are not implanted in all centres, therefore, most trainees spend their whole residency doing internal medicine and emergency department on-call shifts. These differences could partly explain why respiratory medicine is one of the less popular specialities.

In the past few years, undertaking respiratory medicine research during the residency has obtained more relevance. During the 4 years of training, the resident has to attend clinical sessions and actively participate by presenting cases or preparing teaching sessions. In addition to the clinical training, the residency should be complemented with some background in research. In most cases the trainee starts with retrospective research; however, as the resident gains knowledge, the research work gains complexity. Usually, the respiratory resident participates in national

and international congress communications and sometimes starts work on a PhD project.

Finally, unlike in the USA or some other European countries, at the end of the residency there isn't any requirement from the Spanish government to accredit the title specialist in respiratory medicine.

Over 50 institutions in Spain offer a residency in respiratory medicine so the applicant must be aware of the main programme in each hospital before making a decision. Although there are no major differences in the clinical abilities that the trainee will gain, unfortunately there may be differences in the research training; a field which we should improve. Respiratory medicine is a specialty that is constantly expanding and includes specific techniques such as bronchoscopy, sleep medicine and mechanical ventilation. It is our responsibility to transmit our enthusiasm to future doctors to encourage their interest and secure the future of our specialty.

Conflict of interest

Disclosures can be found alongside this article at breathe.ersjournals.com