

ARTIGO DE PERSPETIVA

Anaesthesiology in Spain: State of the Art

Anestesiologia em Espanha: Estado da Arte

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Afilição

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Palavras-chave

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Anaesthesiology is a medical specialty defined in Spain since 1984 to protect the patient from surgical aggression. Its scope was extended and expanded by the authorities within the National Specialty Commission and the State Secretariat for Universities and Research of the Ministry of Education and Science in 1996,¹ establishing the following objectives: the study, teaching, research and clinical application of the various methods and techniques for making the patients insensitive to pain and protecting them from surgical, obstetric or invasive tests of all kinds, maintain vital functions or treat them in critical situations and manage both acute and chronic pain. This definition of competences was revised in 2021 by the Spanish Society of Anaesthesiology and Resuscitation (SEDAR) updating it as: "Medical specialty responsible for perioperative medicine, competent in the knowledge and performance of all anaesthetic, analgesic and sedation techniques for diagnostic and therapeutic procedures, emergencies, resuscitation, patient care with critical pathology of any etiology and treatment of acute and chronic pain".² Access to the specialty is done through a general national exam which is offered annually. Spanish medical graduate students and other nationalities covered by international agreements with countries of the European Union and Latin America can register for the exam.

With the exam grade and the previous academic record, a final grade is obtained that will determine the position of each doctor to choose between the different specialities offered in the country. The total number of training places depends on the offer of each accredited training centre. Depending on the characteristics and dimensions of these hospitals, 1 to 15 residents can be formed per year. This offer has been growing exponentially in recent years due to the huge demand for care in the surgical field in our country, going from 70 places in

1988 to 427 in the last call of 2024 (Fig. 1). Training of residents is currently designed to be completed in 4 years, although the possibility of extending it to 5 years is being studied given the growth of responsibilities. During these years of training, a series of competences that are established in the national regulatory framework must be acquired progressively but these can be adapted to the teaching program of each hospital, adjusting the training periods in each case.

Competences are described in the following points:

1. Pre-operative assessment and premedication: At this visit, the patient's medical history is reviewed and an examination aimed at ruling out possible anesthetic problems (especially intubation) must be done. The chosen anesthetic plan is discussed with the patient and the possible complications arising from the anesthesia should be explained, as well as the stay in the critical care unit. Residents must learn to optimize the patients for surgery;
2. Intraoperative care: includes the period from the patient's arrival to the pre-operative holding area to the transfer to the recovery unit. The residents must check that all preoperative recommendations have been followed and plan an anaesthetic plan which should be discussed with the consultant. All surgical and anesthetic actions during surgery should remain reflected in the anesthesia graph;
3. Post-operative care: Once the patient arrives at the recovery unit (post-anaesthetic or critical care unit), the patient condition, the intervention, current state and possible complications and future plan must be discussed with the doctor and nurses in charge.

The training itinerary refers to the set of basic rotations, structured by year, to be fulfilled by every resident. An example of the training path is detailed in Table 1.

In addition to the mandatory rotations, different training courses are recommended as for example: advanced life support, mechanical ventilation, ultrasound regional anaesthesia, echocardiography, focus ultrasound or chronic pain management. Resident must attend and participate in the clinical sessions of the department and hospital. They must

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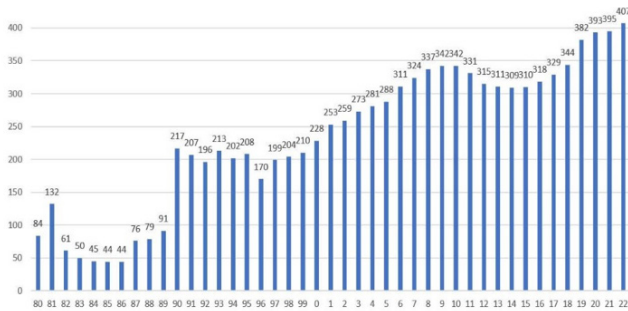


Figure 1. Number of training positions offered from 1980 to 2022

present at least one clinical session each year of residency. Residents are also encouraged to participate in the creation of protocols, publications and the completion of PhD. The assessment of the residents is carried out by the tutors. Each tutor guides and supervises 2-3 residentes during the training period. In Spain, there are no exams during the specialization period or at the end, the evaluation consists of two parts:

- Formative evaluation: consists of 4 interviews with the tutor a year;
- Summative evaluation including: evaluation sheets, external rotation reports, annual reports and satisfaction survey;

The future of the specialty is marked by several challenges:

- Optimize chronic and acute pain management in order to achieve a pain free hospital;
- Standardize attention outside the operating room, with the generalization and expansion of procedures under sedation;
- Implement perioperative medicine to improve perioperative optimization;
- Promote anaesthesia free of pollutants with reduced carbon footprint;
- Extension of residence to 5 years as in most European countries and establish a more objective assessment by carrying out examinations which can be compared with those which are mandatory in the rest of Europe.

CONTRIBUTORSHIP STATEMENT / DECLARAÇÃO DE CONTRIBUIÇÃO

MP, AV: Conception, design, writing, supervision and critical revision of the manuscript

All the authors contributed equally to the design and writing of the manuscript. All approved the final version to be published

MP, AV: *Conceção, desenho, redação, supervisão e revisão crítica do manuscrito*

Todos os autores contribuíram de igual forma para o desenho e escrita do manuscrito. Todos aprovaram a versão final a ser publicada

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Table 1. Training itinerary

First year	Number of months
Cardiology	2
Pneumology	1
Nephrology	2
Radiology	1
Gynaecological surgery	2
General surgery	2
Traumatology and Orthopedic surgery	2
Second year	Number of months
Maxillary surgery	1
Otolaryngologic surgery	2
Plastic and repair surgery	1
Pre-operative assessment	1
Post-anaesthetic Unit	1
Acute pain management	1
Obstetric anaesthesia	3
Chronic pain management	2
Third year	Number of months
Maxillary surgery	5
Otolaryngologic surgery	1
Plastic and repair surgery	4
Pre-operative assessment	2
Third year	Number of months
Cardiac surgery	2
Vascular surgery	1
Out of operating room anaesthesia	2
Major ambulatory surgery	1
General surgery	1
Eye surgery	1
Traumatology and Orthopedic surgery	1
Free rotation	3

Responsabilidades Éticas

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