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Special Article

Tutors of Pulmonology Residents in Spain: Findings From the Annual Training Meetings

Tutores de residentes de neumología en España: resultados de las reuniones formativas anuales

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Introduction

Training of specialist physicians in the internal medical residents (MIR) system began in 1978. Since then, to work properly, the system has required the collaboration of different organizations working together to ensure that residents have been receiving the best possible training over the last 30 years. These organizations include, first of all, the Ministries of Health and Consumer Affairs and of Education and Science (currently the Ministries of Health and Social Policy and of Education, respectively); second, the National Council for Medical Specialties—currently the National Council for Health Science Specialties (CNECS)—and the different national specialty commissions; and, third, the teaching commissions of the accredited teaching centers. Teaching units are represented on the teaching commissions. The tutors of the residents in training—who are essential for the whole system to work—are, in turn, incorporated into these units. The responsibility of these tutors includes, among other things, setting up the training program drawn up by the corresponding national specialty commission in their respective hospitals, as well as laying out the training path that each of the residents in their charge must complete.[1] Despite the enormous importance of these functions, for the most part, tutors do not have the necessary resources to perform their work adequately. Likewise, they rarely receive specific instructions on how to proceed and often tend not to assign free time specifically for these tasks. Moreover, very rarely is the importance of their activity recognized.

The National Pulmonology Commission (CNN) is a consultive body of the Ministries of Health and Social Policy and of Education and forms part of the CNECS. Among its many functions is that of ensuring the quality of training of Spanish pulmonologists.[2] Aware of this mission and the need to establish both the theoretical basis for the teaching function of the tutors and their roles in the new training challenges, the CNN decided some years back to organize, in collaboration with the Spanish Society of Pulmonology and Thoracic Surgery (SEPAR), regular meetings of a mainly practical and interactive nature with all Spanish pulmonology tutors.

In 2006, the first meeting was held, with the main aim of setting up a useful forum for exchanging ideas and debating everything related to postgraduate teaching of the specialty. This forum was intended to be long lasting and become a channel for expression of projects and ideas which, in the field of the teaching of the specialty, might be realized in the future by the Spanish pulmonology community. This aim was achieved in 2007 and 2008 when the second and third meetings were held and new ideas and interesting

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proposals developed. This article presents some of the results and conclusions of the 3 meetings held to date.

Format of the Meetings and Attendance

For 3 consecutive years (2006, 2007, 2008), the CNN and SEPAR held a specific meeting for the tutors of pulmonology residents of all units accredited for postgraduate teaching of the specialty. All resident tutors were invited personally and directly and the meeting was held in April or May of each year, on the morning and afternoon of a single day. The most recent meeting was held in the headquarters of the Ministry of Health and Social Policy. The format of the meetings consisted of short conferences given by selected experts, followed by a long debate with the public, and in parallel workshops in small groups (10 people) repeated as often as necessary so that all tutors could attend all of the organized workshops. The topics included in the agendas of the meetings were related to affairs and problems pertaining specifically to tutoring physicians in specialist training (Table 1).

The first meeting was attended by 50 tutors out of a total of 58 invited tutors throughout Spain, the second by 58 out of 70, and the third by 56 out of 74. All tutors anonymously filled out 2 types of survey; in the first, a generic one requested demographic and professional data and in the second specific one, tutors were canvassed for their opinion and personal standpoint on issues to be discussed and possible solutions. The percentage of completed questionnaires collected in the 3 meetings held was, for both types of survey performed in each meeting, 92%, 82.7%, and 78.4%, respectively.

Profile of the Tutors and Their Role in the New Training Model

From the generic or demographic-professional survey of the tutors, a profile could be constructed of the current tutors of pulmonology residents in Spain. Thus, the tutor is a staff physician (83.8%), usually male (62.6%), of middle age (mean [SD] age, 47.2 [5.9] years) with a few years experience as a tutor (mean, 5.3 [5.3] years).

Until recently, clear criteria for selecting a tutor were not available. In fact, the charge usually fell on a physician of the unit who showed willingness and motivation and who had sufficient general knowledge of the specialty. Sometimes, it would be the heads of department themselves, in the early years even by obligation, who took on this role.[1,3] In any case, the model was a "paternalistic" one in which the resident became integrated into a department and acquired knowledge and skills until reaching an acceptable level of competence after 4 years of training.

In recent years, the training of pulmonology specialists has changed substantially. First, the past difficulty of obtaining a sufficiently good score in the MIR examination to be high enough on the list to enter postgraduate specialization has almost disappeared. Thus, this examination, which was used for selection and was passed by only 6% of those who took it, has now become merely a means for assigning places. There has also been a progressive decline in the preference of physicians for choosing the pulmonology specialty, such that the median score to be allocated a position in recent examinations has been greater than 3000.[4] At the same time, substantial social changes and changes in the workplace have occurred, giving rise to an increased "jobsworth" attitude of the residents. Residents now strive to complete the number of working hours in the hospital, without dedicating additional time to other tasks such as study or research. All these changes are taking place at a time in which the pulmonology specialty is facing new challenges derived from current technological progress and the introduction of new care modalities which are forcing new teaching models to be adopted.[4-6] It is thus particularly important to develop a structured training program adapted to the new learning methods of the resident. In addition, the need to provide the tutors with a better preparation to carry out their functions should be considered.

Functions and Appointment of Tutors

Recently, from a legal and administrative standpoint, the situation of the tutors has been regulated, with their functions and method of appointment defined.[7] "The tutor is a practicing specialist professional who, accredited as such, is charged with planning and actively collaborating in knowledge and skill acquisition, and development of attitudes required of a resident, in order to guarantee compliance with the training program of the specialty." The professional profile of the pulmonology tutor should fit, therefore, with that stipulated in the training program of the specialty.[8] The tutors thus must have solid training in internal medicine and respiratory disease and be master of diagnostic techniques. They should also be able to apply the most appropriate treatment in each case, have extensive clinical experience, be aware of and know how to apply the most appropriate aspects of preventative medicine, public health, health management, and research associated with the respiratory tract, consult for or lead relevant research projects, and participate in the teaching activities of their specialty. In addition to being good specialists, the tutors should be good teachers, given that their attitude to teaching, their specific preparation, their capacity for transmitting knowledge, and their handling of interpersonal relationships might influence the training of the residents.[9]

The tutors are the first in the chain of responsibility for the process of teaching and learning of the residents, and so they should maintain continuous and structured contact with their students. They should also hold regular meetings with other tutors and with the professionals who participate in the training of the residents to analyze the learning process and draw up the corresponding assessment reports for the different rotations. The ultimate aim is to train good pulmonologists so that, by the end of their residency training, they are sufficiently competent to practice independently as specialist and are able to keep themselves up to date through continuing professional development.

The main functions of the tutor should be to plan, manage, supervise, and evaluate the residents' training process, implementing when necessary improvements to the program and encouraging self-learning, progressive increase in responsibility, and assimilation of

Table 1
List of Topics Covered in the 3 Annual Meetings of Resident Pulmonology Tutors Held to Date (2006, 2007, and 2008)

1st Tutor Meeting (2006)
Description of the tutors' situation: Initiatives and reforms
Advances in teaching methodology in specialized training
Expectations, needs, and problems facing pulmonology tutors
Development of a training assessment strategy: Catalan experience
A guide for pulmonology tutors and a quick guide for pulmonology residents
2nd Tutor Meeting (2007)
Key points of the new Royal Decree on training aspects of the resident
Handling difficult situations relating to residents
Feedback on medical education: Structured learning-focused meetings
Resident statute: Problems and opportunities according to the resident in training
Resident statute: Problems and opportunities according to the staff pulmonologist
3rd Tutor Meeting (2008)
Royal Decree for Resident Training: What has changed?
Resident tutors: Recognition, functions, and current situation
New resident book: Its importance and possible models
Accreditation of pulmonology teaching units
The HERMES Project: A common European certificate for pulmonology?

the acquired knowledge.[10] When tutors who attended the meetings were asked about this point, the great majority of those who responded to the survey (97.5%) were of the opinion that the main function of the tutor was to facilitate residents' learning, whereas the remaining respondents considered that evaluation was their principal task. No participant chose other possible functions, such as teaching or preventing negligent care practices.

The tutors should also propose a guide or training schedule for the future specialist, without interfering in the individualized training plan established for each resident. Both the general schedule and the particular plan, in accordance with the training program, should be drawn up by the tutor in collaboration with those responsible for the training courses and other tutors of residents in training in the center or teaching unit.[11] This point is perhaps where there is greatest compliance so far. In fact, 77.8% of the tutors have adapted the official specialty training program in accordance with the characteristics of their hospital and department, 71.5% have organized regular meetings with their residents to supervise their level of learning, and 70.3% have set out specific objectives to be achieved in each of the programmed rotations.

Each tutor should have assigned a maximum of 5 residents, a figure that is in line with the mean number of residents per pulmonology teaching unit according to our survey (mean number of residents per teaching unit, 4.7 [2.5]; mean number of residents under each tutor, 4.1 [2.5]). In fact, this was established in the recent ministerial order that sets the general criteria concerning the teaching commissions, heads of studies, and resident tutors.[12] As for the appointment of the tutor, the current legislation makes it clear that this should be determined by the procedure laid down in each autonomous community. Nevertheless, tutors should be selected from among previously accredited professionals who work on one of the teams in the hospital or teaching unit and who also have the appropriate specialist qualification. In addition, the tutor should by appointed by the managing body of the organization of the teaching unit, as proposed by the teaching commission and according to the prior report of the head of the care unit of the corresponding specialty,[12] in this case, pulmonology.

Tutor Training

The lack of specific training for tutors of pulmonology residents when they were appointed as such is a noteworthy finding of the survey. Overall, 78.8% of the tutors who responded to the survey indicated that, prior to their appointment, they had not received any information about the functions or tasks they were required to carry out. Furthermore, 65.8% indicated that they also were not given any subsequent training and 59.6% considered that the level of preparation for the role of resident tutor was limited or nonexistent (Table 2). Similarly, most tutors agreed that training for them was absolutely necessary; that it was essential that their efforts were recognized and that sufficient time in the schedule had to be assigned to carry out their tasks; that training programs were required to facilitate the learning of the residents; and that new assessment tools would be very useful (Tables 3 and 4).

It seems clear, therefore, that the health authorities should provide plans for improving the continued training of tutors. This would involve training activities on aspects such as those related to the knowledge and learning of educational methods that pulmonology tutors are not particularly aware of, as clearly reflected in the survey. It would also involve training in communication techniques, research methodology, quality management, personal motivation, professional ethics, and other questions related to the content of the specialist program. Some autonomous communities do seem to be developing some training activities for tutors, with the aim of perfecting the teaching activity of these professionals through technical-scientific development and refinement of teaching methodology. For example, the Agencia Laín Entralgo, of the Autonomous Community of Madrid, has drawn up a training plan for tutors of residents and currently offers more than a dozen courses on the topic each year.

Accreditation and Reaccreditation of the Tutors

To become accredited as a resident tutor, in accordance with that described above, the following requirements should be met: being a specialist in the topic (in this case, in pulmonology), interest in teaching, appropriate knowledge of teaching techniques, prior experience (particularly if this is as resident tutor), current knowledge of diagnostic and therapeutic advances in the specialty (by participating, for example, in continuous training activities), research activity, position in an accredited center, and approval from a professional committee. Reaccreditation is also essential and the criteria should be similar to those of accreditation, although the reports from the residents themselves could be added as an important factor. This would allow subjective aspects to be assessed, such as those derived from the good or bad relationship between tutor and residents. Accreditation and reaccreditation should be considered as necessary elements to ensure that postgraduate training is optimal. For tutors, accreditation should also be a merit to assess in professional development, and this would probably be an added incentive.[13]

For accreditation and regular reaccreditation of the tutors, each autonomous community should regulate the necessary assessment procedures.[14] For such an assessment, as mentioned earlier, different factors should be taken into account, such as continued professional experience as a specialist, teaching experience, continuous training activities undertaken, research work and quality improvements implemented, and specific training in teaching methodology

Table 2
Responses Given by the Pulmonology Resident Tutors About their Knowledge of the Different Training Assessment Tools for the Residents in Their Charge

Training Evaluation Tool	Not Aware of This Method , %	Know Something, But Would Not Know How To Apply It, %	Would Know How to Apply It, But Do Not Have the Means, %	Have Experience in Its Use, %
Computerized cases	17.9	23.8	44.6	13.7
Simulated video recording of a patient	19.7	41.9	33.0	5.4
Real video recording of a patient	23.4	40.1	34.2	2.3
Test of skills on a dummy	12.8	25.3	45.1	16.8
OSAC	38.7	42.6	15.6	3.1
Mini training OSAC	47.3	38.2	12.7	1.8
Portfolio	21.1	51.2	21.5	6.2
Audit of medical records	18.3	34.4	28.2	19.1
Self-audit	32.5	35.6	21.0	10.9
Mini-CEX: real observation of consultations+feedback	43.4	24.2	21.3	11.1
360° evaluation	56.8	29.0	11.0	3.2

Abbreviations: CEX, Clinical Evaluation Examination; OSAC, Objective Structured Assessment of Competence.

Table 3
Responses Given by the Pulmonology Resident Tutors to Questions on Tutor Training, Elaboration of the Pulmonology Program, and Figure of the Tutor in the Institution

	SA, %	A, %	NA, %	SD, %	DK/NC, %
Tutor Training					
Need for specific tutor training	77.2	22.8	0	0	0
Need for tutor accreditation and reaccreditation	59.5	37.7	0	0	2.8
Pulmonology Training Program					
The objectives of rotations should be defined	66.2	31.7	0.5	0.5	1.1
Objectives should be set to facilitate evaluation	63.9	34.5	0.3	0.3	1.0
Lists of minimum compliance should be established	52.0	41.4	1.6	0.2	4.8
Specialty should be extended to 5 years	52.3	22.5	8.7	0.4	16.1
Choice of tutor					
It is recommendable that he/she is not department head	56.9	26.4	8.7	5.1	10.9
Choice should be made by the departmental members and the residents	36.4	46.8	6.9	4.5	5.4
Each tutor should take charge of a maximum of 6 residents	48.3	34.6	6.2	3.3	7.6
Tutor Recognition					
Should have power of decision	53.7	42.8	0.7	0	2.7
Should have 1 hour each week assigned for each resident in his/her charge	62.6	30.4	1.7	0	5.3
Should have professional recognition	78.9	19.6	0	0	1.5
Should receive financial rewards	52.1	31.5	1.4	1.7	13.3

Abbreviations: A, agree; DK/NC, don't know or no comment; NA, not in agreement; SA, strongly agree; SD, strongly disagree.

Table 4
Responses Given by the Pulmonology Resident Tutors to Questions on Aspects Related to Assessment of the Resident

	SA, %	A, %	NA, %	SD, %	DK/NC, %
The current assessment is subjective and not valid	41.8	45.6	8.3	0.7	3.6
New assessment tools should be developed					
Proposals for improving the current assessment system:					
—All staff should participate jointly in the assessment of the resident	23.9	43.3	15.8	0.9	16.1
—The evaluation should be done using a scale of 0 to 10 (not 0 to 3 as has been the case until now)	12.0	45.8	10.5	2.3	29.4
—Self-assessment should be promoted	14.1	56.9	11.6	1.0	16.4
—The assessment procedure should be made known to the rest of the staff	23.1	58.3	9.0	0.2	9.4
The training assessment of the resident should pay attention to the following criteria:					
—Program objectives met	44.3	54.0	0	0	1.7
—List of minimum compliance	33.8	56.5	0.7	0	9.0
—Periodic structured meetings with the resident	49.5	45.0	2.4	0	3.1

Abbreviations: A, agree; DK/NC, don't know or no comment; NA, not in agreement; SA, strongly agree; SD, strongly disagree.

undertaken, as well as the results of the surveys of satisfaction. The aim is to maintain and improve the quality of the specialty and health care for the general population in the scope appropriate for each specialty. An additional aim is to ensure the appropriate training of pulmonologists who finish their training in accredited teaching units, with the final aim of stimulating the competence and progress of the pulmonology specialists, both as professionals and in terms of curriculum vitae.

Recognition of Tutoring

The Figure reflects the opinions of tutors surveyed concerning the recognition of the efforts of the tutor. When questioned as to how their effort should be recognized, the following responses were given: specific dedicated time allocated (89%), consideration in professional career (89%), merely bureaucratic recognition (66%), and financial reward (55%). The survey also clearly shows that most of the tutors still do not have specific time assigned to carrying out their tasks. For example, most (97.2%) indicated that they did not have a specifically scheduled time to carry out their tutorial function even though the mean time employed per week in this respect was 2.4 (3.2) hours.

The specific systems of recognition of the tutorial action on the part of the autonomous communities are now regulated,[14] although they have yet to be set up in most cases, as clearly reflected in the survey. In the procedures for evaluating the tutor mentioned earlier, the tutor functions carried out in units and centers accredited for training specialists should no doubt be recognized. While this is clearly essential, it is not in itself sufficient. The recognition should go much deeper and consider other possibilities, such as inclusion in professional assessment or financial reward, even if it is little more than symbolic. This is the case, for example, for academic positions in Spanish universities and for teachers associated with health sciences.

Conclusions

In conclusion, the figure of the tutor is increasingly important in the training program of any medical specialty. Thus, the health managers should ensure tutors have the means available to carry out their work and that they have the right profile in line with the new teaching demands, can accredit their activity, have sufficient time to do their job, and receive proper recognition of their work. Currently, however, this is largely not the case, as clearly reflected in the survey. New legislative means may be required to open up new perspectives, with real and practical solutions for this type of training, which now goes back more than 30 years.

In the meantime, the meetings of pulmonology resident tutors, such as those held to date, may help spread awareness and improve

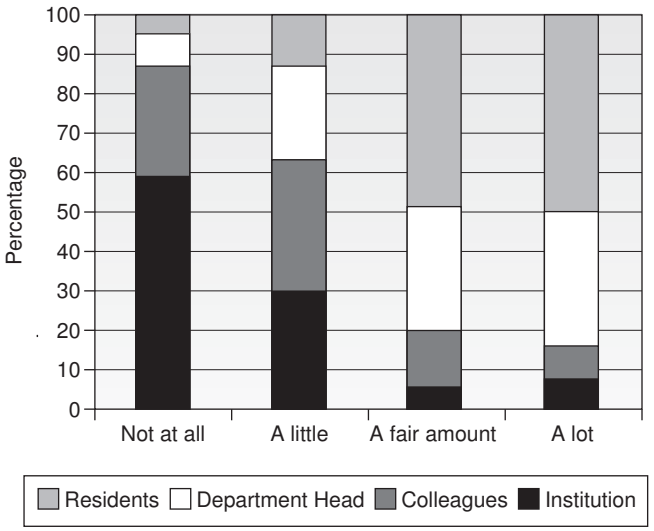

Figure 1. Responses given by the pulmonology resident tutors to the question: "Do you believe your work as a tutor is recognized in your center by …?"

the current situation of tutors in our specialty. In this regard, the results of the survey seem conclusive. In any case, the CNN and SEPAR would sincerely like to thank those tutors for their enormous, selfless, and, to a certain extent, anonymous effort made for the good of the training of more than 30 successive generations of pulmonology residents.

Conflicts of Interest

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