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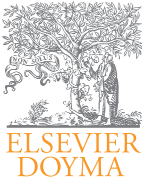

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Editorial

Accreditation for Units Treating Sleep Disorders in Respiratory Medicine

Acreditaciones en neumología. Unidades de sueño

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In recent years, respiratory sleep disorders, especially obstructive sleep apnea-hypopnea syndrome (OSAH), have generated growing interest among the medical community. Various epidemiological studies undertaken in the USA and Europe have demonstrated that OSAH is a highly prevalent disorder, which affects between 4%-6% of men and 2%-4% of women of the general adult population. In addition, studies have demonstrated its association with a deterioration in quality of life,[1,2] with the onset of high blood pressure, cardiovascular and cerebrovascular diseases, and with traffic accidents.[3,4] Despite all of these data relating to the relevance of OSAH, studies carried out across the various age sectors demonstrate that in Spain there are between 1 200 000 and 2 150 000 patients with relevant OSAH and that, despite the fact that it is a disorder which can be treated, only between 5%-9% of patients are receiving treatment. The Spanish Organisation of Respiratory Medicine and Thoracic Surgery (SEPAR) has served as a reference point for the development, in recent years, of extensive health care and research activity in Spain in the field of sleep disorders. In various documents, corresponding to the years 1994, 1997, 2003, and 2007, the health care situation of patients with sleep apnoea and the development of sleep disorder units in Spain have been reported.[5-8]

In view of this situation, in 2005 SEPAR launched a debate by means of its Sleep Section, to establish whether it is necessary to begin an accreditation process.

Recently, the "European Guidelines for the Accreditation of Sleep Medicine"[9] have been published, whose main objective is to ensure and improve the care of patients, and to examine and evaluate both the members of the sleep disorder laboratory and the minimum requirements with which a sleep medicine centre must comply. The European guidelines represent an initial course of action, which, ideally, is expected to be adhered to very closely throughout Europe. However they will certainly be subject to certain exceptions, depending on the local development in each country and the regulations in force. On this point it is important to emphasise that sleep medicine is a discipline which is highly multidisciplinary in nature. In Europe, its development has been linked with different medical specialities; in the particular case of Spain, a great contribution has been made by pulmonologists. However, it is clear that in the field of respiratory medicine there are still large gaps in training and insufficient developments in respiratory medicine departments, infrastructures, and human resources dedicated to the diagnosis and treatment of these disorders.[8] Therefore, there is a marked dissociation between the high prevalence of disorders such as sleep apnoea syndrome, the growing number of patients receiving treatment with some form of ventilatory support, the growing scientific activity being undertaken with respect to respiratory disorders during sleep and the "normalisation" of health care activity within respiratory medicine departments. In 2001, Pack,[10] in an excellent editorial published in the *American Journal of Respiratory and Critical Care Medicine*, wrote about these aspects and raised the possibility that directors of respiratory medicine departments were showing little interest in the development of this area, or that pulmonologists in general did not feel attracted to a discipline which involved the in-depth study of neuroscience. This is all despite the fact that 35%-40% of patients who currently attend a respiratory medicine consultation for the first time do so due to respiratory sleep disorders. In addition to this analysis, perhaps the scant knowledge of sleep disorders and breathing during sleep of the rest of the health care workers and the health authorities should be taken into consideration.

The American Thoracic Society, the largest professional organisation of health workers connected with respiratory diseases, and the European Respiratory Society had shown little interest in sleep and its disturbances until recently. Meanwhile, the American Academy of Sleep Medicine has facilitated the development of the National Commission on Sleep Disorders Research (Wake up America) and of the National Institute of Sleep Disorders Research, as well as establishing accreditation procedures for sleep centres, producing practical factual guides and facilitating the undertaking of multicentric studies.[11-13]

In Spain, *Grupo Español de Sueño* [Spanish Sleep Group] has led the study of respiratory disorders during sleep and, as well as contributing to the knowledge of this disorder and its implications on society, it has made relevant contributions with its scientific publications in journals in the first quartile and has launched multicentric studies which have become an international frame of reference.

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The Spanish Sleep Group believes that it is necessary to make progress in the implementation of sleep medicine in Spain, both from a purely "domestic" perspective (SEPAR) and in its relation to and agreements with other specialities involved in sleep medicine. It is, in fact, from the perspective I have named "domestic" which the development of an accreditation process of sleep disorder units is in full force in Spain. The general objective is to set, endorse, and provide a level of health care quality in terms of the diagnosis, treatment, and educational processes relating to sleep.

It is clear that a series of minimum conditions must be put in place, beginning at the existence of an adequate "critical mass", which is proven by the high level of scientific concern that has been demonstrated by the Spanish Sleep Group, and to which numerous respiratory medicine departments in a growing increase of infrastructures and equipment, a volume of relevant activity and the leadership of the pulmonologists. These aspects are the minimum requirements which, according to the SEPAR Quality Committee, must be fulfilled in order to begin a process of accreditation.

The situation of the sleep disorder units in Spain is determined by a functional framework, starting at sleep disorder units with the capacity to resolve the majority of problems related to sleep disorders, which therefore have a cross-sectional notion of sleep medicine, through to purely respiratory units; both have a different degree of complexity, depending on the place in which they are classified. It is noteworthy that, in 2007, according to data from Masa et al,[8] of the 741 Spanish centres with which contact was established, 217 usually assessed patients with OSAH. Eighty-eight per cent had respiratory polygraphy (n = 168) or polysomnography (n = 97). The average delay for consultation was 61 days; the average delay for a respiratory polygraphy to be carried out was 224 days. The average respiratory polygraphy equipment was 0.99/100 000 residents, when the recommended figure is 3/100 000; the average delay for a polysomnography to be carried out was 166 days. The average number of beds for polysomnography was 0.49/100 000 residents, when the recommended number is 1/100 000.

In view of this situation, SEPAR, and in particular, the members of the Spanish Sleep Group, began producing an accreditation guide for sleep disorder units in Spain 3 years ago. The accreditation process conceived in this way forms part of an initial process with a basic objective of registering resources and activity. This does not initially involve the accreditation of people, but is inevitably completed by a training programme, with the aim of attaining the maximum qualification in the health care, science, education, and research in sleep medicine. SEPAR recognises that we are, as in other fields of medicine, part of a clearly cross-sectional speciality. Consequently, pulmonologists must make an effort to "normalise" activity related to sleep disorders, resulting the provision of sleep medicine services playing a reinforced, more significant role than that which it has played until now. We believe that an accreditation process such as the one which is currently being implemented must contribute towards: *a)* improving the provision of health care to our patients, assuring a quality standard; *b)* implementing a map of technical resources which facilitates its management; *c)* aid the development of sleep medicine training plans in the various fields of knowledge, and, therefore, develop the "accreditation of knowledge"; *d)* promote collaboration with colleagues of other clinical disciplines, within a framework of cooperation free from tension; and *e)* promote the flux of investments in sleep medicine research.

This is an extensive, flexible, integrative guide, which is subject to modifications through time and voluntary in nature, for the accreditation of sleep disorder units. Its structuring in levels is not in any way indicative of categories of a higher or lower ranking, as all levels actively contribute and are essential to the provision of a quality health service, in close proximity of the patient. However, these levels represent the different levels of complexity at the time of dealing with the diagnosis and treatment of patients with sleep disorders. The coordination is therefore being used as a link between different levels (vertical coordination) and different disciplines (horizontal coordination).

The system of accreditation shall be developed in this initial phase by means of completing a questionnaire, whose details shall be verified by the Sleep Section, Non-Invasive Ventilation, and Intensive Care, and for these purposes a digital platform has been developed which allows its completion on the SEPAR website.

For practical purposes, 3 levels of accreditation have been established, according to the technical complexity, human resources, etc:

- *Level la.* Formed by those units who carry out their activity in centres in which the approach to sleeping disorders involves various specialities. These centres are therefore equipped to resolve the majority of problems relating to sleep, and are led or co-led by a pulmonologist. Consequently, at this level, cases of multidisciplinarity arise: *a)* units shared by various specialities related with sleep medicine and led or co-led by a pulmonologist, and *b)* units with health care protocols which cover various specialities.
  These units have a wide range of diagnostic resources and carry out health care activity which complements educational and research activity.
  At this level, SEPAR recommends coordination with other medical specialities and with sleep disorder units with a different level of health care.
- *Level lb.* These are units whose scope of work is undertaken in the field of respiratory disorders during sleep, without the regulated participation of other medical specialities different from respiratory medicine.
  There is a lower level of technical and human resources, and an educational or research activity may be carried out. At this level of complexity, SEPAR also recommends coordination with other medical specialities and with sleep disorder units with a lower level of health care.
- *Level Ic.* Formed by units with extensive health care activity, aimed at the diagnosis and treatment of patients with respiratory disorders during sleep, with a degree of technical complexity which includes respiratory polygraphy and oximetry. At this level, SEPAR considers essential the implementation of genuine coordination with other sleep disorder units of higher complexity, in order to promote sufficient quality control in terms of the health care service offered, and to promote the development of units of additional local activity.

At this level, multidisciplinary health care protocols must be established. The departments in which respiratory polygraphy is not carried out cannot be accredited, nor can those departments which outsource all diagnosis and treatment of patients with respiratory sleep disturbances, and which leave this process in the hands of external providers (oxygen therapy companies, etc).

The initial decision for accreditation at the various levels shall be made in the Sleep Section of SEPAR, in which a committee of experts has been set up for accreditation, which will be issued by SEPAR. The accreditation process will require the official certification of the centre to which the sleep unit belongs and verification of the details provided, when this is deemed convenient. The validity of the certification is 4 years, regardless of correspondence, which may modify the level of accreditation. SEPAR will, periodically, publicly announce the accredited centres, and will inform the Ministry of Health, the regional departments of health, the hospital centres, the European Respiratory Society, the consumer and user organisations, and other scientific and social organisations related with sleep disturbances of this accreditation upon request and subject to prior approval by SEPAR. It will be compulsory for the accredited centres

to send a report to the SEPAR Sleep Section detailing health care activity, education, and research, every 2 years, or when SEPAR requests this via the Sleep Section. This document is temporary until the development and implementation of a university-level training plan endorsed by SEPAR, which provides a logical pathway to a qualitatively different conception of sleep medicine.

On this basis, an accreditation process will convert sleep disorder units into providers of a total service programme for in sleep disorders, able to provide an adequate assessment of patients with a wide range of sleep disorders.[14]

In conclusion, we believe that we are at the beginning of a very important time for studies into sleep disorders; pulmonologists are consolidating their leadership in the assessment of sleep disorders and, as a result, millions of patients in Spain will benefit.

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References

1. Young T, Palta M, Dempsey J, Skatrud J, Weber S, Badr S. The occurrence of sleep-disordered breathing among middle aged results. N Engl J Med. 1993;328: 1230-5.
2. Durán J, Esnaola S, Ramón R, Iztueta A. Obstructive sleep apnea syndrome and related clinical features in a population based simple of subjects aged 30-70 years. Am J Respir Crit Care Med. 2001;163:685-9.
3. Terán-Santos J, Jiménez-Gómez A, Cordero-Guevara J, and the Cooperative Group Burgos-Santander. The association between sleep apnea and the risk of traffic accidents. N Engl J Med. 1999;340:847-51.
4. Marín JM, Carrizo SJ, Vicente E, Agustí AG. Long term cardiovascular outcomes in men with obstructive sleep apnea-hypopnea syndrome with or without treatment with continuous positive airway pressure: an observational study. Lancet. 2005;365:1046-53.
5. Durán Cantolla J, Mar J, de la Torre G, Rubio R, Guerra L. El síndrome de apneas-hipopneas durante el sueño en España. Disponibilidad de recursos para su diagnóstico y tratamiento en los hospitales del Estado español. Arch Bronconeumol. 2004;40:259-67.
6. Terán J, Fernández García C, Cordero Guevara J. Situación en España de los recursos diagnósticos y tratamiento del síndrome de apnea obstructiva del sueño en los hospitales de la red pública del Estado. Arch Bronconeumol. 2000;36:494-9.
7. Masa JF, Monserrat JM, Durán J; the Spanish Group of Breathing Sleep Disorders. Diagnostic access for sleep apnea in Spain. Am J Respir Crit Care Med. 2004;170:195.
8. Masa Jiménez JF, Barbé Illa F, Capote Gil. Recursos y demoras en el diagnóstico del síndrome de apneas-hipopneas durante el sueño (SAHS). Arch Bronconeumol. 2007;43:188-98.
9. European guidelines for the accreditation of sleep medicine centres. European Sleep Research Society, Committee Steering. J Sleep Res. 2006;15:231-8.
10. Pack AI. Rip Van Winkle: will academic pulmonary programs ever wake up to sleep? Am J Respir Crit Care Med. 2001;164:2143-4.
11. ATS/ACCP/AASM Taskforce Steering Committee. Executive summary on the systematic review and practice parameters for portable monitoring in the investigation of suspected sleep apnea in adults. Am J Respir Crit Care Med. 2004;169:1160-3.
12. Chesson AL Jr, Berry RB, Pack A. American Academy of Sleep Medicine; American Thoracic Society; American College of Chest Physicians. Practice parameters for the use of portable monitoring devices in the investigation of suspected obstructive sleep apnea in adults. Sleep. 2003;26:907-13.
13. Standards for Accreditation of a Sleep Disorders Center. Program Directors. Institutional Administrators Site Visit Committee Members. American Academy of Sleep Medicine Accreditation Committee. December, 2007
14. Wagner PD, Epstein LJ, Kvale PA. Pulmonary physicians in the practice of sleep medicine. Am J Respir Crit Care Med. 2005;172:1357-62.