



## Editorial

# A Network Management Approach to Sleep Apnea–hypopnea Syndrome: Healthcare Units<sup>☆</sup>



## Abarcando el problema del síndrome de apneas-hipopneas del sueño desde la gestión en red: unidades asistenciales

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Nobody would deny nowadays that sleep apnea–hypopnea syndrome (SAHS) is a public health problem. Indeed, it meets all the required criteria: it is a highly prevalent disease, diagnosis is definitive, and treatment is effective. Moreover, it has a heavy impact on quality of life and causes an increased accident rate among sufferers. A great deal of research has been carried out in recent years, much of it by the Spanish Sleep Network, to document its possible association with cardiovascular risk<sup>1</sup> and poor progress in cancer.<sup>2</sup> Addressing this problem requires participation and commitment from players at both healthcare and non-healthcare levels, yet sleep itself seems to have been forgotten by the health and welfare community. We should be as concerned about getting a good night's sleep as we are about following a healthy diet and doing exercise.<sup>3</sup>

For many years now, the diagnostic and therapeutic needs of this disease have created organizational problems in a wide range of healthcare departments that at times seem insurmountable. To this is added the considerable problem of managing the resources needed to tackle SAHS. Despite the major organizational and educational efforts of recent years, most centers continue to struggle with the same old problems, to wit, interminable waiting lists and pressures from all sides regarding the management of home respiratory therapy.

To address the problem of SAHS, we must act on the 3 main underlying issues: the specific care model, the particular characteristics of its diagnosis, and the intricacies of its treatment.

1. When discussing the “care model”, we must not forget that the SAHS patient will also present multiple concurrent diseases requiring simultaneous management. These often overlap with

other very common sleep disorders and with other comorbidities, all of which need attention. There is little use, then, for a conventional management model in which processes are managed linearly from start to finish by a single specialist unit in a single, generally hospital, setting. The various diagnoses presented by the SAHS patient must be viewed globally, and patient care must be integrated and comprehensive. Management of the SAHS patient must also extend beyond the walls of the hospital into the primary care center,<sup>4</sup> and even into the patient's home. If these proposals are to be realized, all healthcare levels (administration, hospital, health center, home) and all professionals (managers, physicians, nurses, technicians) must be involved in the process.

Taking into account these special characteristics, it seems that patient care would be better managed with the deployment of a “healthcare network” model. In such a model, the different healthcare levels would be administered in different clinical units, with a growing degree of complexity, depending on their place in the healthcare hierarchy (basic, respiratory, and multidisciplinary). The network system, as the name suggests, requires close communication between the various components, and each player must be familiar with the system hierarchy, areas of influence, channels of communication, common intervention regimens, and chains of referral. Basic keys to the success of the network include autonomy, information, training, and communication. This model offers optimization of existing resources, accessible to the whole network, and sets priorities according to preference and complexity.

A final requirement in this first phase is the need to invert the management pyramid of these patients. In the conventional approach, most SAHS patients are evaluated and monitored by experts in sleep medicine (the base of the pyramid) with very little intervention, if any, from the primary care physician or nurse (apex), generating an unsustainable situation. Primary care physicians and nursing staff must be involved at the entry level in the management of most of these patients; in other

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words, this level must become the base of the pyramid. Only more complex patients should be referred to the more specialized units or apex of the system. This would relieve hospitals, and hospital units, of much of the burden of managing SAHS patients.

2. In the area of diagnosis, both the problem of underdiagnosis and the problems derived from long waiting lists must be addressed. With regard to underdiagnosis, the general practitioner (GP) plays an essential role in the identification of suspected cases. The message must be clear, and patients with 2 of the 3 critical symptoms (snoring, evidence of apneas and/or excessive sleepiness/fatigue) must be referred. It is equally important that patients with at-risk jobs, debilitating sleepiness or respiratory failure are given priority referral. If all GPs used this simple rule-of-2 identification tool and avoided unnecessary delays in seeing at-risk patients, we would be well on the way to success. With regard to waiting lists, it is absolutely essential that super-simplified methods are applied. We should remember that the simpler the method, the better the prior clinical evaluation of the patient (and the greater the experience of the treating physician) must be; therefore, the role and limitations of GPs must be taken into consideration. The value of these methods resides in their capacity to identify patients with more severe SAHS than the majority of patients on the waiting list for a sleep study, so that treatment is initiated as quickly as possible in patients who need it most.
3. As for treatment, working on the assumption that it is cost-effective and reduces associated morbidity and mortality, treatment must be organized from a perspective of sustainable services and maximized efficiency. We should not forget that the SAHS patient is very often a chronic patient,<sup>5</sup> so optimization of the available resources is essential. a) Suppliers are the main player in this process, so they must be required to meet care standards that are evaluated by the healthcare personnel running the units. Thus, shared risk agreements based not only on economic considerations, but also on treatment efficacy, can be implemented; b) close collaboration with suppliers, as opposed to parallel activities, is essential to optimize available resources and c) it is essential that we take advantage of all the facilities now offered by new technologies (e-medicine, intelligent equipment,<sup>6</sup> super-simplified equipment,<sup>7</sup> etc.). This will improve continuity of care by reducing the burden of work and efficiently monitoring non-complying patients.

Finally, the results of ongoing studies on the consequences of SAHS could significantly change the diagnostic and therapeutic management of these patients. We must prepare ourselves for these changes and be ready to face new challenges that might require a complete overhaul of existing routines. We must examine the leading role of CPAP as the main protagonist in the current treatment of this disease. Perhaps we will need to take a more global view of the treatment of our patients, and avoid compartmentalizing diagnoses. We must concentrate our efforts on providing the best treatments for obesity and comorbidities, on using alternative treatments, and on addressing non-respiratory sleep diseases. We must ask if our lines of research are correctly targeted at making advances in procedures that will improve the management of our patients in the very near future.

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