



## Editorial

### SEPAR Year of the Chronic Patient and Domiciliary Respiratory Care. Points for Reflection<sup>☆</sup>



Año SEPAR 2014 del paciente crónico y las terapias respiratorias domiciliarias. Puntos para la reflexión

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The Spanish Society of Pneumology and Thoracic Surgery (SEPAR) has declared 2014 the Year of the Chronic Patient and Domiciliary Respiratory Care (DRC). The initiative could not be timelier, as DRC is the focus of important new concepts associated with advances in health technology and the design of new models of relationships between patients, professionals, administrators and service providers. Archivos de Bronconeumología joins this initiative with the inauguration of a series of reviews by expert authors addressing the major current issues in DRC.

A marked increase in the demand for DRC is expected in the coming years, in view of demographic changes, the increase in chronic and disabling disease and the widening variety of patient care settings other than hospitals (nursing homes, centers for chronic patients, home). Advances in chronic respiratory failure and the need for home oxygen therapy (HOT) led to a change in strategy in the 1980s and the creation of an infrastructure and service network capable of responding to specific needs. Following Sullivan's description of the nasal application of positive pressure (CPAP) in patients with sleep apnea-hypopnea syndrome (SAHS) and the improvement of interfaces, the use of noninvasive ventilation (NIV) became generalized.<sup>1,2</sup> There is evidence that patients with COPD survive longer on continuous oxygen therapy (COT),<sup>3</sup> and CPAP has also been shown to control the symptoms of patients with SAHS, to reduce associated traffic accidents, and to impact positively on cardiovascular comorbidity.<sup>1</sup> Although no controlled clinical trials are available, home-based mechanical ventilation (HMV) reduces the need for hospitalization and improves life expectancy in many situations of chronic respiratory failure.<sup>4</sup> Nebulized antibiotic therapy is a frontline weapon in the prevention of bronchial infections in patients with cystic fibrosis and adults with bronchiectasis.<sup>5</sup> In short, DRC methods

also reduce health costs derived from hospitalization, disability or morbidity and mortality, with a clear beneficial cost-benefit ratio.<sup>6</sup>

However, there are no recent studies on the prevalence of chronic respiratory failure. This is known to occur in the clinical course of pulmonary or extrapulmonary disease. In their final stages, COPD, with a prevalence of 10.2%, obesity-hypoventilation syndrome and others with a lower prevalence but high health and social impact, such as neuromuscular diseases or idiopathic pulmonary fibrosis, lead to chronic respiratory failure that can be managed with COT, HMV and additional necessary or complementary techniques, such as mechanical assisted cough, nebulized therapy, secretion aspirators or telemonitoring. The indication of COT for chronic respiratory failure in end-stage COPD is well established on the basis of studies conducted in the 1980s, but these have not been reproduced since then, and there is a large gap in knowledge with respect to other diseases and clinical situations.<sup>7</sup>

An estimated 800 000 patients annually receive home oxygen therapy in the United States, with costs equivalent to 2.2 billion USD in 2002, and an annual increase of 12%–13% per year. Oxygen therapy for the treatment of migraine has taken the United States by storm, and a third of migraine sufferers spend over 1000 USD per year on oxygen, while a small percentage spends more than 12 000 USD.<sup>3</sup> The number of patients currently receiving DRC in Spain exceeds 650 000, with annual growth rates of between 12% and 15%.<sup>8</sup> In 2011, Spain spent 9.3% of its GDP on health care, and was slightly below the OECD average in terms of per capita total expenditure, spending an average of 3072 USD. In a country where life expectancy is among the longest in Europe, chronic diseases, of which at least a third are respiratory, account for 75% of health expenditure.<sup>9</sup>

Against this backdrop, a scenario is emerging in which the role of each player must clearly be defined. Supplier companies are switching from a model of service provider to one of comprehensive healthcare provider. This is the result of both a shift in their philosophy and the requirements of the health agencies, which demand high cost-efficiency and impose financial models that go

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beyond mere payment for service. The clinician has direct responsibility for patient education, monitoring treatment compliance and detecting adverse effects and complications. Finally, the patient and caregivers themselves share responsibilities in improving patient progress, with involvement in the processes of self-care, knowledge of the disease and the proper use of and compliance with DRC.

The positive impact on mortality and adequate cost/benefit and cost/utility ratios of DRC may be clear, but strategies for achieving greater efficiency must be adopted. Standards must be set, not only for indications and monitoring, but also with regard to the necessary technical characteristics of the equipment and requirements.<sup>10</sup> The special features of DRC place it in a prime position for the development of innovative strategies<sup>11</sup> to guarantee that the fundamental values of our health system (accessibility, equity and universality) are maintained. A multidisciplinary approach to ensuring quality of care and sustainability of the system must be established. CPAP therapy appears more cost-effective than many of the standard treatments for some cardiovascular risk factors or biological treatments.<sup>12</sup> However, CPAP in HMV requires closer assessment, in terms of long term use,<sup>13</sup> implementation strategies<sup>14</sup> and applicability to respiratory diseases in general<sup>15</sup> or to treatment plans that include home hospitalization or telemedicine.<sup>11</sup>

The management of dependent patients is a complex process undertaken by professionals from different areas of specialization. Accordingly, the contributions of these teams must be coordinated to provide patients with the appropriate personalized treatment they need. Scientific societies have a responsibility to develop guidelines and standards bringing together criteria for intervention and referral criteria and determining the steps to be taken for facilitating the work and providing equitable care, irrespective of the type of hospital where it is delivered. The various working groups should promote studies to clarify many of the doubts regarding the prescription, monitoring and follow-up of DRC. This has always been a concern of SEPAR, as demonstrated with the commitment of SEPAR to their dedicated “Years”, in particular 2014, designated as the Year of DRC. Archivos de Bronconeumología, as the organ of the society, adds its efforts to those of the multidisciplinary teams involved in DRC by declaring its high level of involvement and

helping to increase the level of knowledge of this concept among professionals.

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