## A practical guide for physical therapy treatment of patients with Chronic Obstructive Pulmonary Disease (COPD): combining scientific evidence and clinical practice

Guia prático sobre o tratamento fisioterápico em pacientes com Doença Pulmonar Obstrutiva Crônica (DPOC): unindo evidências científicas e prática clínica

Within the context of international cooperation for the development of practical guidelines, the Royal Dutch Society for Physical Therapy (Koninklijk Nederlands Genootschap voor Fysiotherapie, KNGF) has proposed over the last few years to develop Guidelines for the Clinical Practice of Physical Therapy in patients with Chronic Obstructive Pulmonary Disease (COPD). The KNGF has also encouraged the translation of the guidelines into other languages to make them accessible to a wider population. International access to guidelines for clinical practice in physical therapy allows physical therapists around the world to use these instruments as reference while treating patients. Moreover, it motivates international cooperation to develop and update these practical guidelines. On a national level, each country may endorse, advertise, and adjust them to their local situations, if necessary.

Given this scenario, and taking into account that there are two Brazilian authors who are in the group of international specialists involved in the development and/or translation of the guidelines (Vanessa S. Probst and Fábio Pitta), we would like to introduce the Portuguese version of the Guidelines for the Clinical Practice of Physical Therapy in patients with COPD (www.scielo.br/rbfis). These guidelines were originally launched in 2008 in Dutch, and the English version has recently been published in the journal *Clinical Rehabilitation*; also, the French and German versions are currently being translated. The original version of the guidelines in Dutch was substantially more detailed than the version published here and available at http://www.fysionet.Nl/dossier\_files/uploadFiles/RL\_COPD\_PRL\_281108.pdf. Due to space constraints, the translated versions are summaries of the most relevant clinical recommendations, which is also the case of the present version.

COPD is a disease mainly linked to smoking and characterized by airflow limitation that is not totally reversible. This limitation is usually progressive and leads to increased shortness of breath or dyspnea. Other symptoms, such as coughing, wheezing, bronchial hypersecretion, and recurrent respiratory infections are also typical of this clinical condition as are systemic consequences, such as lack of physical conditioning, muscle fatigue, extreme physical inactivity, weight loss, and malnutrition. Emotional problems such as depression, anxiety, and social isolation are also commonly observed. The prevalence of this disease and its mortality has risen over the last decades and is expected to continue growing due to population aging combined with the alarming proliferation of smoking among women and adolescents. All of these factors contributed to the great concern for the best treatment for COPD patients and motivated the development of these guidelines since the disease includes changes which can be improved through physical therapy.

These practical guidelines provide directions to physical therapists regarding the treatment of patients with COPD. They are an updated version of the initial 1998 guidelines, published in Dutch by the KNGF. Over the last

decade, a number of scientific advances were added to the body of knowledge concerning COPD treatment, justifying the update of these recommendations. For instance, there is now a better understanding of training with aerobic and interval exercises, strength training, respiratory muscle training, respiratory exercises, non-invasive mechanical ventilation, and neuromuscular electrical stimulation. Additionally, a greater emphasis is now given to the evaluation and treatment of physical inactivity in daily life because it is not only a prominent characteristic in the advanced stages of the disease, particularly after an acute exacerbation, but has also been identified in its earlier stages. Also, it has become evident that changes in the patients' lifestyle (physical inactivity, smoking) require behavior change strategies from the onset of the disease to attain long-term improvements in quality of life.

The guidelines emphasize the specific role of the physical therapists, but also invite them to interact more with other health professionals in both primary and secondary care. Interdisciplinary care plays an important role in the treatment of patients with COPD and has been encouraged in international guidelines because an effective rehabilitation of this population is essentially the result of teamwork. A multidisciplinary team ideally involves physical therapists, physicians, nurses, nutritionists, psychologists, social workers and occupational therapists with qualifications in the respiratory and rehabilitation fields. These teams are usually based at secondary or tertiary care institutions, but smaller teams can be based in the primary care system. There is an urgent need for greater development and organization of care networks for patients with COPD, especially in primary care.

The KNGF guidelines contain information on patient referral, their diagnosis, and assessment. However, the main focus of the guidelines is to provide therapeutic recommendations which might help the physical therapist to offer the best possible treatment for patients with COPD, taking into account the available scientific evidence. Due to space constraints, only the bibliographical references that are directly linked to the therapeutic recommendations are included, and a more detailed list of references on other topics from these guidelines can be found in the original archive of the KNGF document on the abovementioned website.

It is important to highlight that practical clinical guidelines are not regulatory statutes, but only offer recommendations based on the latest scientific results. Health professionals are encouraged to implement guidelines to provide quality treatment. Nevertheless, considering that the recommendations are primarily based on the "average" or "standard patient", professionals are also advised to use their own judgment to select procedures which may differ from those suggested, if the situation so requires, as long as they are motivated and supported by scientific evidence. As prescribed in the professional education of all physical therapists, the responsibility for any intervention falls on the professional individually. We hope that these guidelines will be useful in daily practice by encouraging physical therapists to offer the best possible care to patients with COPD.

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