



## EDITORIAL

## Tele-consultation: A new promised land?



## KEYWORDS

Chronic respiratory disease;  
Tele-medicine;  
Tele-consultation;  
Position paper

The Covid19 pandemic has been responsible for an unprecedented pause in the out-patient respiratory practice due to the clinical emergency. Therefore, the respiratory community has been forced to find alternative but equally effective ways to continue monitoring individuals with respiratory diseases.<sup>1,2</sup> A focus on tele-medicine was already present before the pandemic.<sup>3</sup> However, the pandemic has given the right incentive to overcome some logistic and practical issues and to rapidly implement the available technology to support this emergent field.<sup>4</sup> Tele-medicine represents the ‘*Distribution of health services in conditions where distance is a critical factor, by health care providers that use information and communication technologies (ICT) to exchange information useful for diagnosis where doctor is able to perform diagnosis at distance*’.<sup>5</sup>

In this issue of Pulmonology, the position paper of the Portuguese Pulmonology Society on the basis of available literature provides guidance on tele-consultation practices for Pulmonologists.<sup>6</sup> Tele-consultation programs provide consultation from remote distance when a respiratory assessment or support is already in place. Many studies focused on the feasibility of remote monitoring in several respiratory conditions indicating that it is effective, safe, cost efficient, and well tolerated by patients.<sup>7</sup> Indeed, among the several advantages encountered in using tele-consultation, the most important are the facilitated access to specialist consultation, the improved comfort in particular for people with physical disabilities, the reduced infection risks, and travelling expenses.<sup>8</sup>

There are still some legal and organizational issues that need to be clarified and detailed.<sup>9</sup> First, tele-consultation should be provided through hospital software which are set up in place to guarantee security, data privacy and

confidentiality of all the information gathered.<sup>9</sup> Second, there are many barriers to teleconsultation such as low education, demographics (e.g., older individuals), modest socio-economic conditions with no access or confidence with technology, unavailable high speed internet connection, cognitive, motor, visual, phonation and speech abilities, hospital and patient costs to ensure the dedicated personnel and right equipment.<sup>10,11</sup> Lastly, many countries have not yet provided any dedicated rule or law to regulate privacy, data security, legal and economic issues related to telemedicine.<sup>9</sup>

In order to set up an effective respiratory tele-consultation lab, first, hospital dedicated rooms, PC and software for tele-consultation have to be set up to record and monitor all remote consultation provided. Second, all respiratory questionnaires usually used in clinical practice to check disease status and quality of life, as well as adherence to therapy or devices use, need to be available in the tele-consultation environment.<sup>12,13</sup> Third, all sensors used with miniaturised processors, body area networks, and wireless data transmission technologies allowing the assessment of physical, and physiological parameters have to be easily accessible via software connection in dedicated computers so to add these gathered information and to implement the effectiveness of teleconsultation.<sup>4</sup>

In the literature, the use of tele-consultation has been reported as useful in the management of chronic obstructive pulmonary disease, asthma, interstitial lung diseases, chronic respiratory failure, and home mechanical ventilation, among other clinical situations.<sup>14</sup>

In the position paper by Morais et al.,<sup>6</sup> the Portuguese respiratory physicians’ college of experts once again highlights the importance of the tele-consultation and provides a checklist based on the specifics of each respiratory disease to better tailor tele-consultation. The authors advise that first there should be some general guidance on providing the best possible experience in not only technical effectiveness but also the correct suitability and patient selection. Before starting, the most important issues are: first, to guarantee the use of a secure platform provided by the hospital which complies with legal data protection requirements, privacy and a suitable physical, acoustic, and visual environment in

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dedicated rooms. Second, to ensure that the connection is working correctly to allow a two ways communication without technical problems. Third, to obtain verbal or written consent for the virtual consultation. Following these first steps, it appears clear that the referral needs to be appropriate. All respiratory tele-consultations need to follow a first de visu consultation either by the same or other respiratory units or out-patients' facilities. This is needed to rule out any current clinical exacerbation or clinical instability together with any physical or cognitive impairment. The authors suggest that the only exception to first visit in remote tele-consultations may be considered for smoking cessation and sleep disordered breathing. Once all the general steps are in place, scrutinizing each respiratory condition becomes easy and feasible ensuring an appropriate clinical assessment as if in a face to face clinical out-patient visit. Thus, the authors clearly list all the steps and tools needed during each tele consultation based on a specific respiratory disease. These lists come in handy when setting up a tele-consultation lab from the beginning, allowing an appropriate flow and time schedule for each dedicated respiratory condition.

In conclusion, the Covid19 pandemic brought new opportunities to continue quality of care for individuals with respiratory diseases via remote monitoring and tele-consultation.<sup>15</sup> Potentially, in the future these new aids will continue to be implemented and will become an essential part of the clinical daily practice of care. The manuscript by Morais and colleagues<sup>5</sup> offers practical, easy to follow recommendations to help standardising this setting.

Tele-medicine, artificial intelligence, virtual reality, robotics are increasingly helping (invading?) the medical activities.<sup>1,4,16</sup> However, as physicians we need to be aware that technology has never been able to substitute the empathy of the in-person doctor-patient relationship. Therefore, as health care providers, we will always be asked to balance the advances of present and future available technologies and the direct empathic approach with our most severely affected respiratory patients.

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## Conflicts of interest

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