

# Managing COPD with technology during COVID-19

By Brett McLaren

*The author is currently a senior clinical marketing manager at ResMed. The contents of this article are reflective of the author's views. This article is written to raise the awareness of the paradigm shift in COPD management by exploiting exploring the potential of telemedicine. It is not meant to promote any brands or devices.*

COPD is a major respiratory illness in Malaysia with a 4.7% prevalence of moderate to severe cases reported in 2018, which translates to 448,000 cases.<sup>1,2,3</sup> The result is largely due to poor disease awareness and COPD often being mislabeled as asthma by both health care workers and patients. Research has also been lacking in chronic respiratory diseases in Malaysia, particularly in primary care settings where the majority of patients are seen.<sup>4</sup>

While primary care providers play a vital role in screening the population at risk, in Malaysia, COPD is significantly underdiagnosed or diagnosed when the disease is already advanced.<sup>1</sup> Experts believe that this situation will likely be exacerbated by the pandemic.<sup>5</sup>

To cope with the number of patients initially requiring beds for COVID-19 response, most hospitals have shifted resources away from non-intensive ICU treatments. As health systems move towards recovery, the first reality is overburdened hospitals with backlogged cases where spirometry cannot be performed.<sup>6</sup> Even now, despite some non-elective respiratory services reopening, patient volumes remain low. For example, South Korea and Thailand hospitals were conducting as low as 40 percent volume of elective/semi-elective procedures in the past few months.<sup>7</sup> In Malaysia, a recent survey study found that many general practitioners and family physicians are only getting a quarter of their usual patient load since the pandemic hit.<sup>8</sup>

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<sup>1</sup> Malaysian Family Physician. Holistic Management of Chronic Obstructive Pulmonary Disease in Primary Care. [https://www.e-mfp.org/old/2010v5n3/chronic\\_obstructive\\_pulmonary\\_disease.html](https://www.e-mfp.org/old/2010v5n3/chronic_obstructive_pulmonary_disease.html)

<sup>2</sup> Biomedcentral, Asia Pacific Family Medicine. Impact of chronic obstructive pulmonary disease (COPD) in the Asia-Pacific region: the EPIC Asia population-based survey. <https://apfmj.biomedcentral.com/articles/10.1186/s12930-015-0020-9/tables/1>

<sup>3</sup> Ministry of Health Malaysia. Health Facts 2019: Reference Data for 2018. [https://www.moh.gov.my/moh/resources/Penerbitan/Penerbitan%20Utama/HEALTH%20FACTS/Health%20Facts%202019\\_Booklet.pdf](https://www.moh.gov.my/moh/resources/Penerbitan/Penerbitan%20Utama/HEALTH%20FACTS/Health%20Facts%202019_Booklet.pdf)

<sup>4</sup> National Center for Biotechnology Information, Chronic respiratory diseases are neglected by Malaysian Family Physician, 2018. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6382082/#ref5>

<sup>5</sup> Ibid

<sup>6</sup> Oliver Wyman. COVID-19: Responses & Implications to Healthcare in Asia. <https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2020/apr/covid-asia-implications/COVID-19-Responses-and-Implications-To-Healthcare-In-Asia.pdf>

<sup>7</sup> <https://www.healthcareitnews.com/news/asia-pacific/impact-COVID-19-apac-hospitals>

<sup>8</sup> CodeBlue: Pandemic Hits Malaysian Private Health Sector Hard, 2020. <https://codeblue.galencentre.org/2020/04/20/pandemic-hits-malaysian-private-health-sector-hard/>

This is in part due to patient avoidance of healthcare settings, especially private clinics and hospitals<sup>9</sup>. Given the devastating impact that COVID-19 can have on the lung, it is natural for patients with underlying COPD to be cautious of exposure during this time. However, this creates long-term challenges to continued patient care. According to a recent article in the European Respiratory Journal, we have not yet quantified how many COPD patients around the world may have chosen, or were unable to, visit hospitals during this pandemic.<sup>10</sup> Drawing on learnings from the previous SARS epidemic, where wide-spread avoidance of hospital systems was common, particularly among those with chronic conditions, researchers hypothesize that this number is high.

Early detection and COPD education are critical to improve survival rate among patients with COPD in Malaysia. Fortunately, the smart use of technology is helping patients and healthcare workers bridge the gap. Health decision makers and administrators are paying attention to the shift that is happening nationwide in adopting technologies to empower patients to take charge of their own health in the clinical setting and beyond.

“The ripple effects of COVID-19 are spread far and wide globally. However, not all the impacts are negative. During this interval, we have witnessed a significant change of perspectives by the sleep medicine providers, patients and policymakers toward telemedicine.

While the technology and platform supporting telemedicine still require further optimisation to make the full uptake a reality, the pandemic has certainly expedited this process which I believe will not be reversed in the post-pandemic era.

It is a game-changer for sleep medicine, indeed!,” Associate Professor Yong Kek Pang, Department of Medicine, University Malaya.

Across the Asian region, hospitals are now considering several technologies to support in their management of non-dependent patients with obstructive or restrictive respiratory conditions. For example, there are noninvasive ventilator systems that are designed to continuously monitor and support both the upper airway and alveolar ventilation from the comfort and safety of a patient’s home. Healthcare providers serving respiratory patients with reservations about visiting clinics may find such technology to be a viable alternative to ensure continued care while minimizing infection risks. Such systems are used in a hybrid model with face-to-face care leveraging functions that enable doctors to download patients’ therapy data, change ventilator settings, and gain insights into their therapy progress across a number of metrics (including Apnea Hypopnea Index (AHI), leak and pressure).

In addition, it is important that healthcare professionals understand that mid- or long-term isolation or quarantine may be associated with increased levels of depression, stress and anxiety, and worsened symptom control and decreased quality of life in people with asthma and COPD.<sup>11</sup> We can continue to leverage the digital tools at our disposal for continued communication and advocacy for patients.

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<sup>9</sup> Free Malaysia Today. MMA says private clinics and hospitals struggling, calls for govt aid, November 2020. <https://www.freemalaysiatoday.com/category/nation/2020/11/20/private-healthcare-facilities-not-fully-utilised-in-covid-19-war-mma-tells-govt/>

<sup>10</sup> To, Teresa. Viegi, Giovanna. Cruz, Alvaro, et al. A Global Respiratory Perspective on the COVID-19 Pandemic: Commentary and Action Proposals. European Respiratory Journal 2020. <https://erj.ersjournals.com/content/early/2020/06/08/13993003.01704-2020>

<sup>3</sup> Ibid

Integration of primary and secondary care for the management of respiratory disease is a long-held ambition. For respiratory specialists as well as general practitioners, continued best practice sharing is key.