## Post-COVID-19 syndrome

Physical, cognitive and psychological consequences seem to be realistic expectations for COVID-19 patients who have survived the acute phase of the disease. However, residual symptoms and signs in patients who have returned to microbiological normalisation after the acute phase are not clearly delineated.[1] It is now known that COVID-19-related acute respiratory distress syndrome (ARDS) causes diffuse alveolar damage in the lung, with the long-term outcome being lung fibrosis caused by scar tissue.[2] In addition, pulmonary thrombosis is also common in sepsis-induced ARDS, detected by elevated D-dimer levels, in fatal cases evidenced by diffuse microvascular thrombosis, suggesting a thrombotic microangiopathy.<sup>[3]</sup> After the acute phase, in the post-exacerbation period, survivors are at increased risk of myocardial infarction, stroke and pulmonary embolism, all causing cardiovascular mortality.<sup>[4]</sup> Even if patients recover physically, they could be at particular risk of suffering from long-term mental health problems, or perceive a reduced quality of life as well as post-infection fatigue.[1] Therefore, during the 30 days following the acute phase of the event, patients, especially survivors of COVID-19 pneumonia, require close monitoring, with prompt recognition of cardiovascular complications. In addition, there is a need to follow up these patients for at least 6 months after the initial diagnosis. Clinical management of these patients requires a whole-patient perspective, as post-COVID-19 seems to be a multisystem disease.<sup>[5,6]</sup> From the limited current evidence, it is anticipated that the majority of patients with prolonged COVID-19 illness will recover without specialist input, through a holistic and paced approach provided by a team of family medicine and preventive medicine physicians. [6] However, some patients will require a multidisciplinary post-acute care team involving several specialties (such as cardiology, infectious diseases, pulmonology, neurology, rheumatology, geriatrics, gastroenterology, psychiatry, ophthalmology, otorhinolaryngology and dietetics).<sup>[5]</sup> The majority of health services across the world

are overwhelmed by the strategies to reduce transmission and death, and only a handful have some plan to provide post-COVID-19 care to the patients who are out of the acute phase of the disorder. The health services have to consider provision of care to these patients through interprofessional, community-facing rehabilitation services, which embrace patient self-management and peer support, and harness the potential of telemedicine and other remote technologies. This will assist in identification of patients who require specialist care in tertiary institutions. Lastly, management of post-acute COVID-19 must occur in conjunction with management of pre-existing or new comorbidities.

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