



# Post-COVID-19 Condition and Its Recognition in Low- and Middle-income Countries: Working Notes from the United Kingdom Experience

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To the Editor

The post-COVID-19 condition, also known as long COVID, threatens to be a pandemic within the pandemic. Affected patients include adults, children, and adolescents who have new or ongoing symptoms  $\geq 4$  weeks after the start of acute COVID-19.<sup>1</sup> COVID-19 pneumonia at hospital admission, intensive care stay, older age, and female sex are poor prognostic markers for the post-COVID-19 condition.<sup>2</sup>

This can jeopardize global health and economic recovery and may represent an emerging public health concern. In the United Kingdom (UK) alone, 2.1% (1.3 million) of the population developed the post-COVID-19 condition so far.<sup>3</sup> In a cross-sectional observational study of 89 acute COVID-19 survivors from the UK, nearly 50% of them still had long COVID symptoms during the 9-month survey. Over 33% of our patient cohort had multiple long COVID symptoms.<sup>4</sup>

Epidemiology studies in many low- and middle-income countries (LMICs) are lacking. Since the post-COVID-19 condition is not fully understood and uncertainties are still present about its pathophysiology, many LMICs have not implemented robust strategies to deal with the negative consequences of this condition.

Several challenges are identified in delivering holistic care to post-COVID-19 condition sufferers in LMICs. One of the challenges is in identifying patients' symptoms owing to the general public and health care providers' lack of awareness of the condition.<sup>5</sup> Another stumbling block is correctly attributing the patient's symptoms to the post-COVID-19 condition, which has many mimickers.<sup>2</sup>

We urge LMICs to learn from the UK's model to deliver long COVID care and consider implementing a holistic approach to this disabling condition.

Setting up a multidisciplinary approach to establishing COVID-19 recovery programs to support, expand, and provide access to pulmonary rehabilitation is critical in tackling the physical and mental aspects of post-COVID-19 condition. Specialist medical society support is mandatory, e.g., taking a leaf out of the recommendations by the British Thoracic Society guidelines for patients experiencing persistent problems with respiratory symptoms after COVID-19 and highlighting support mechanisms and, finally, the importance of community support that occurs through peer-to-peer community and COVID-19 online support groups.

Raising awareness, identification, public health information campaign, education, research, and multidisciplinary and multipronged health department coordination may be the cornerstones in the efficient management of the long-term effects of COVID-19 in vast and resource-stretched healthcare systems found in LMICs. Covering health needs in LMICs with a large population may be an expensive exercise that can stretch the resources. However, the loss of workforce due to the debilitating post-COVID-19 condition may impede health and economic recovery, with the ramifications potentially costing more than the expenditure spent to improve the health and well-being of these individuals.

We hope that the World Health Organization will take the initiative to assess the scale of the problem, negotiate, and implement a road map for patients with long COVID in LMICs, which is a need of the hour!



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