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Management of non-COVID respiratory illnesses during the COVID-19 pandemic — a pulmonologist's perspective

To the Editor

The novel coronavirus disease 2019 (COVID-19) caused by the SARS-CoV-2 virus continues to wreak havoc all over the world with approximately 57,714,184 infections and 1,373,065 deaths reported to date [1]. No definite therapy is available yet and vaccines are still under development. As the entire health-care system is entangled in tackling the pandemic, interim guidelines were formulated in order to organize optimal prioritization of health resources to avoid the compromise of non-COVID care. However, these guidelines were directed at generalized management of all non-COVID-19 related illness. Our letter focuses on the management of the common non-COVID respiratory illnesses, thereby aiming to provide clarity to treating physicians. Further, chronic lung disease is an independent risk factor for severe COVID-19 and mortality [2].

Bronchial asthma, defined by a history of variable respiratory symptoms (wheezing, shortness of breath, chest tightness, and cough) and variable expiratory airflow limitation, affects nearly 300 million people worldwide and leads to increased mortality in middle and low-income countries. The Global Initiative for Asthma (GINA) recommends continuation of asthma medications (particularly inhaled corticosteroids, oral corticosteroids, and biological therapy) as sudden discontinuation may lead to poor asthma control. Apart from pharmacotherapy, a written asthma plan aimed at recognizing exacerbations is advised. The main change in asthma care includes

the avoidance of nebulizers and the preferential use of pressurised metered-dose inhalers (pMDI) with a spacer to avoid aerosol generation. The use of spirometry and peak-flow meters should be avoided unless compelling indications influencing clinical management arises. In the case of aerosol-generating procedures, strict infection control measures need to be adopted and personal protective equipment (PPE) should be used [3]. Until further evidence is available, it is safe to incorporate these measures into asthma management during the COVID-19 pandemic. Chronic obstructive pulmonary disease (COPD) is the third leading cause of death in the world and is a significant risk factor for poor patient outcome (ICU admission, invasive ventilation, or death) in COVID-19 [4]. The global initiative for obstructive lung disease (GOLD) interim guidelines advise for the continuation of maintenance therapy and adherence to the advice of local health teams in order to minimise the chance of disease spread [5]. Pulmonary rehabilitation (PR) is a key component of stable COPD management and can be performed via programs conducted online or by telephone [6]. In suspected COPD exacerbations, it is advised to rule out COVID-19 while effectively managing the exacerbation.

Pulmonary tuberculosis (PTB) continues to be one the leading cause of morbidity and mortality, especially in high-TB burden countries. Data regarding COVID-19 infection in PTB is limited and the World Health Organization (WHO) has issued an urgent message highlighting the need to maintain continuity of essential services for people affected with TB during the

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COVID-19 pandemic as it threatens to reverse the gains made in TB prevention and care. Patients with PTB and COVID-19 are expected to have poorer outcomes if anti-tuberculous therapy is interrupted. Early diagnosis, appropriate treatment, and preventive measures such as cough etiquette, personal hygiene, and social distancing need to be adopted as they help in reducing the transmission of TB and COVID-19. TB patients should be in constant communication with health care facilities to aid in the management of adverse drug reactions, comorbidities, nutritional and mental health support, and restocking of medical supplies. Steps have to be taken to ensure the timely availability of TB medicines and collection of sputum samples for follow-up testing. Until the pandemic subsides, a decentralized home-based treatment approach should be initiated for all TB patients. However, it is important to note that this may lead to an increased risk of household transmission of TB [7].

Lung cancer is the most common malignancy worldwide resulting in 2.09 million deaths in 2018. Lung cancer patients also have an increased probability of contracting SARS-CoV-2 infection due to immunosuppression from the malignancy, chemoradiation, advanced age, chronic lung disease, and other comorbidities. Diagnostic delay may occur in COVID-19 suspected/positive patients as elective/emergent bronchoscopy is postponed until 28-30 days after resolution of symptoms and viral shedding. Enrolment of new patients for chemotherapy has also been put on hold temporarily at various cancer centres. Diagnosis of lung cancer should be aimed at obtaining tissue with the least invasive method and to perform urgent bronchoscopies in a safe and timely manner after taking into consideration local availability of resources [8]. Apart from diagnosis and medical management, surgery in resectable lung cancer is also affected as elective surgeries are currently rescheduled. Enrolment in chemotherapy and radiotherapy should be initiated in a systemic manner after effectively ruling out SARS-CoV-2 infection. The decision for timing of surgery should be individualized on a case by case basis. In case of urgent surgeries, they should be preferentially done in negative pressure isolation rooms with full PPE [9].

Community acquired pneumonia (CAP) can be due to bacterial or viral pathogens. The most common organisms include streptococci, moraxella catarrhalis, haemophilus influenza B, chlamydia, and staph aureus. Viruses contribute to one-third of CAP. According to Medley *et al.*

[10], empirical antibiotics are recommended against the most common CAP pathogens but are not routinely indicated in COVID-19 pneumonia. Cultures are not routinely advised and should be obtained only when multidrug resistant organisms are suspected. Measuring serum procalcitonin can help to prevent antibiotic overuse. Use of steroids or any immunomodulating agents are not indicated in bacterial CAP.

Apart from the above respiratory diseases, there are several other chronic lung diseases for which no definitive guidance is available yet and are beyond the scope of this article. The optimal management of these major non-COVID respiratory illnesses is paramount in reducing the burden of overwhelmed health care systems tackling the COVID-19 pandemic. Timely testing, ensuring adherence and compliance to therapy through social networking systems, telemedicine consultations, access to medication and hospital care in case of worsening symptoms, PR, and counselling counseling, and education social stigmas are the way forward in the new normal of learning to live with COVID-19 and will help recover lost ground on non-COVID respiratory care. As the saying goes, “the battle may have been lost, but the war is still there to be won”.

Conflict of interest

None declared.

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