

Emerging Research for Pulmonary Disease

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Home Administration of Omalizumab for Asthma

In response to the COVID-19 pandemic, the US Food and Drug Administration (FDA) has granted temporary approval for home administration of omalizumab for patients with moderate-to-severe asthma (although not chronic urticaria) in an effort to minimize the need for these high-risk patients to visit a health care facility, although supervised administration remains the preferred approach. In a letter to providers, the FDA outlined selection criteria for home administration [1]: No prior history of anaphylaxis, successful administration of at least three separate doses of omalizumab in the office, ability to recognize and treat symptoms of anaphylaxis, and ability to follow the prescribed dosing regimen and utilize proper injection technique for omalizumab. Patients will require new prescriptions for prefilled syringes.

COPD and COVID-19

Chronic obstructive pulmonary disease (COPD) is associated with a greater likelihood of intensive care unit admission, invasive ventilation, or death among patients with COVID-19 infection [2]. We agree with expert recommendations that individuals with COPD should make every effort to avoid COVID-19 exposure using hand hygiene and social distancing. All maintenance medications necessary to maintain control of COPD should be continued during the COVID-19 pandemic, including bronchodilators, inhaled glucocorticoids, and, when indicated, roflumilast and azithromycin [3,4]. There is no good evidence that inhaled glucocorticoids have an adverse effect on the course of COVID-19 infection. In addition, the usual guidelines for prompt initiation of systemic glucocorticoids for a COPD exacerbation should be followed, as delaying therapy can increase the risk of a life-threatening exacerbation. For patients hospitalized with COVID-19 infection, use of inhalers is preferred to nebulized medications to reduce the risk of aerosolizing and spreading the virus. For patients who use nebulizers at home, caution is advisable to avoid spread of COVID-19 to other members of the household.

Cardiopulmonary Resuscitation for Patients with COVID-19

The American Heart Association (AHA), in collaboration with several other major medical organizations, has published interim guidance, including updated algorithms for basic and advanced life support for children and adults with suspected or confirmed COVID-19 [29]. Tasks and modifications for clinicians emphasized in the guidelines include the following: don personal protective equipment according to local guidelines and availability before entering the scene or patient room; minimize the number of clinicians performing resuscitation; use a negative pressure room whenever possible; keep the door to the resuscitation room closed; if resources and expertise are available, use a mechanical device to perform chest compressions on adults and adolescents who meet minimum height and weight requirements; use a high-efficiency particulate air (HEPA) filter during bag-mask ventilation (BMV) and mechanical ventilation; emphasize early intubation performed by the provider most likely to achieve first pass success (table 1); use video laryngoscopy if resources and expertise are available; stop chest compressions while intubation is performed; if intubation is delayed, use a supraglottic airway or BMV with tight seal; in patients with a low likelihood of survival, avoid prolonged resuscitation efforts. (See “Pediatric advanced life support (PALS)”, section on ‘COVID-19 patients (suspected or confirmed)’ and “Advanced cardiac life support (ACLS) in adults”, section on ‘Resuscitation of patients with COVID-19’ and “Basic life support (BLS) in adults”, section on ‘Resuscitation of patients with COVID-19’ and “Pediatric basic life support for health care providers”, section on ‘COVID-19 patients (suspected or confirmed)’.)