It is only question of time; with advances in artificial intelligence/machine learning, new technology may show comparable performance with PSG in terms of sensitivity, specificity, and accuracy in all severities of OSA.[4]

(This reflects the views of the author and should not be construed to represent the Food and Drug Administration's views or policies.)

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# Assessing Candidacy for Tracheostomy in Ventilated Patients With Coronavirus Disease 2019

## Aligning Patient-Centered Care, Stakeholder Engagement, and Health-Care Worker Safety

**To the Editor:**

With their recent consensus statement in *CHEST* (October 2020), Lamb et al[1] bring much-needed clarity to the role of tracheostomy during the coronavirus disease 2019 (COVID-19) pandemic. Such guidance will be particularly impactful if implemented in a manner that engages multidisciplinary teams,[2] diverse stakeholders,[3] and delivers patient-centered care.

In the acute phase of the pandemic, clinical operations centered on minimizing the risk of infectious transmission to health-care workers and building the critical care capacity[4]; far less attention was afforded to fostering multidisciplinary engagement and shared decision-making. This dichotomy was particularly evident in the use of tracheostomy, where concerns for health-care worker safety and hospital strain overshadowed important, but less pressing, patient-focused interests (such as early restoration of speech, oral intake, or rehabilitation). Fortunately, strategies have emerged that help to address this imbalance by protecting staff and optimizing patient-centered care.

An apnea trial is one example of a simple tool that can facilitate judgments of timing and candidacy for tracheostomy while minimizing risk to health-care workers.[3] Risk of aerosolization for severe acute respiratory syndrome coronavirus 2 is likely greatest during cuff deflation or entering and manipulating the airway; such risks are exacerbated by positive pressure ventilation. Although apnea during such maneuvers is advisable,[1] many patients with COVID-19 have high oxygen and ventilator requirements; suspending ventilation leads to significant and potentially life-threatening de-recruitment and desaturation. An apnea trial that consists of preoxygenation followed by suspending ventilation can clarify the patient's physiologic reserve to tolerate apneic tracheostomy. Rapid desaturation suggests that tracheostomy is best deferred by avoiding the exposure risks to staff of unnecessary transfers to the operating room and of high-risk airway procedures complicated by rapid desaturation. It thus ensures that the timing of tracheostomy is optimized for the patient. A "failed" apnea test can identify inadequate pulmonary reserve and facilitate both critical care management and later intraoperative planning.

As we enter a more chronic phase of the pandemic, time-tested standards of care that are built on decades of data for management of ARDS will likely assume a greater role.[4] The prognosis remains guarded for patients with severe COVID-19, but tracheostomy is appropriate for those with evidence of improvement and anticipated prolonged mechanical ventilation. Multidisciplinary planning and rehabilitation towards patient-focused goals is essential. The pandemic has seen global collaboration, rapid learning, and sharing of experiences.[3] Optimal, safe, patient-centered tracheostomy care is possible and will continue to be

refined by forthcoming data.[5] Lamb et al[1] deserve praise for their contribution to tracheostomy care during the pandemic era.

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# Response

**To the Editor:**

We thank Brenner et al for their interest in our consensus statement[1] and for highlighting specific considerations relevant to performing tracheostomy during the coronavirus disease 2019 (COVID-19) pandemic. In their letter, Brenner et al cite the need to balance risk reduction of infection transmission among health-care workers during an aerosol-generating procedure, such as tracheostomy, while optimizing patient safety and readiness for the procedure. We agree that, for specific aerosol-generating procedures, the uncertainty and lack of definitive best practices regarding risk reduction early in the pandemic may have led to a preferential focus on health-care worker safety. In fact, that is one of the main reasons we decided to perform a systematic review of the available literature and follow a formal expert panel and consensus statement method, rather than simply publish a series of opinion-based recommendations.

Brenner et al discuss the benefit of a preprocedural apnea trial. They also highlight the importance of a multidisciplinary team approach in the performance of tracheostomy and aftercare. We echo these specific observations in our article because we delineate in the third recommendation and in Table 3 the importance of performing a brief apnea test prior to tracheostomy and performing coordinated apnea during key aspects of the procedure along with sedation, analgesia, and neuromuscular blockade to minimize potential aerosolization.[1] We also advocate to have the most experienced operators and the least number of personnel present during the procedure to further reduce transmission of infection. We also agree with them that our statement will be more engaging by involving all teams participating in the care of patients with COVID-19. That is the reason that, in recommendation 7, we highlight the role of the key stakeholders and that of a multidisciplinary team for procedural assessment and planning. We summarize the recommendations from several surgical and medical societies pertinent to considerations for tracheostomy aftercare. There is evidence that such teams enhance safety and also may achieve a more efficient pathway to downsizing and decannulation.[2,3] Increasing awareness on the assessment and management of such patients by a broader pool of providers is relevant, especially during the surge of the pandemic, which further reinforces the need for a multidisciplinary care plan in this setting. Best practices and therapies for patients with COVID-19 continue to evolve rapidly, and it will be important to use and continue to learn from the global experience to refine the timing, technique, and aftercare of patients with COVID-19 whose condition requires tracheostomy.

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