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strategy in a variety of surgery specialties, among both inpatients and outpatients.

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Surgical Novelty During Pandemic: Keep It Safe and Simple



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We read with great interest Foster and colleagues¹ description of a modified method for open tracheostomy to mitigate procedural aerosolization and the risk of nosocomial infection in a patient with SARS-CoV-2. However, based on our experience with more than 70 tracheostomies performed over 5 weeks inclusive of the pandemic peak, we had little to no difficulty in executing historically standard tracheostomy techniques coupled with high-level barrier precautions recently advocated by both national and international advisory groups.^{2,3}

At our institution, which is one of several New York City tertiary care academic medical centers posting a high census of mechanically ventilated COVID-19 patients (>180 during the surge), we adopted a specialized 2-team approach for timely tracheostomy, which balanced both patient and operator safety concerns with responsible use of available personal protective equipment (PPE). Briefly, bedside percutaneous tracheostomies were performed in the intensive care units, preferably in negative-pressure rooms, and using bronchoscopic guidance. Open tracheostomies were performed in dedicated negative-pressure operating rooms, without patient bed exchange, in order to minimize the shared risk of contamination, including ventilator circuit disruption. Regardless of technique, the number of at-risk participating staff was minimized, and all surgeons and anesthesiologists were

outfitted with standard PPE as well as a personal air purifying respirator (PAPR) when appropriate, as per CDC guidelines.⁴ In each circumstance, standard surgical site preparation was performed, routine instrumentation was used, and full paralysis was provided for every patient. Intraoperatively, vacuum-suctioning was used sparingly. Entry into the trachea was announced by the surgeon to allow for less essential personnel to briefly exit the room at the time of near-coincidental oral extubation and tracheostomy tube placement. To date, there have been no reported COVID-19 infections in our team staff using this protocol.

Historical open and percutaneous airway techniques and existing safeguards remain practical and relevant, even under the current duress of the pandemic crisis. Minimizing procedure personnel, using paralytic agents, economizing suction evacuation, and above all, communicating with anesthesia and nursing staff appear to be the key drivers in limiting COVID-19 transmission at our center. There is no surgical protocol that completely eliminates the risk of infection from aerosolized SARS-CoV-2 during tracheostomy. Preservation of essential hospital resources, including human, is a priority for the foreseeable future. To that end, we acknowledge the important contribution of surgical improvisation by well-intentioned operators, and advocate the usual caution in adopting any novel, but unvalidated, technique.

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Surgical Precautions and Algorithmic Decision-Making for Surgical Procedures During the COVID-19 Pandemic



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The article “Precautions for operating room team members during the COVID-19 pandemic” by Forrester and colleagues¹ is very interesting and well written. However, it does provoke some controversy, which I would like to highlight. Forrester and associates¹ reported an institutional algorithm to protect operating room team members during the COVID-19 pandemic and rationally conserve personal protective equipment (PPE).

In COVID-19, there may be abnormalities in objective tests, even if patients are asymptomatic. For example; in a study of patients with 24 asymptomatic COVID-19 infections, thorax CT was performed on all patients, with typical ground-glass opacities or irregular shadows in 50% of patients and atypical imaging findings in 20%.^{2,3} Five of these patients had mild fever within a few days of diagnosis.² Another study conducted on 55 patients with asymptomatic infection detected by contact history showed that 67% had initial signs of pneumonia in CT initially, only 2 patients developed hypoxia, and all healed. In a study conducted with 1,014 patients in Wuhan, China, the sensitivity of the reverse transcriptase-polymerase chain reaction (RT-PCR) test and thorax CT in the diagnosis of COVID-19 was compared.⁴ Considering the positivity rates of thorax CT with reference to the RT-PCR test (evaluated by 2 different radiologists); the sensitivity of thorax CT was 97% and its specificity was 25%.⁵ Low specificity has been associated with other etiologic factors causing similar CT findings.

We have developed a comprehensive decision-making tree algorithm that includes precautions and guidelines for operating room team members to be used in emergency, urgent, and elective surgical procedures (Figs. 1 and 2). The RT-PCR test for COVID-19 has 60% sensitivity when a nasal swab is taken, and 31% lower