

Table 1. Comparison Between the Rate of SARS-CoV-2 Infection in Workers Involved and Not Involved in Tracheotomy Procedures

Characteristic	Frequency/ Total (%)	P Value ^a
Exposed to tracheotomy with any role	7/91 (7.7)	.55
Not exposed to tracheotomy procedure	6/52 (11.5)	
Subgroups		
Exposed to tracheotomy as first operator	0/6 (0)	1
Not exposed to tracheotomy as first operator	13/137 (9.5)	
Exposed to tracheotomy as fiberopticist	0/35 (0)	.04
Not exposed to tracheotomy as fiberopticist	13/108 (12)	
Exposed to tracheotomy as instrumental nurse	4/24 (16.7)	.23
Not exposed to tracheotomy as instrumental nurse	9/119 (7.6)	
Exposed to tracheotomy as anesthesia nurse	5/44 (11.4)	.54
Not exposed to tracheotomy as anesthesia nurse	8/99 (8.1)	

^aP ≤ .05 was considered statistically significant.

CoV-2 infection. Doctors in the cohort of those exposed to tracheotomy had a higher frequency of involvement in tracheal intubation procedures in COVID-19 patients, but the infection rate for this cohort did not increase.

Tracheotomy is defined as early if it is performed within 10 days of tracheal intubation.¹ Percutaneous tracheotomies were performed within the first 10 days in 98% of our patients, while the latest procedure was performed after 12 days. Early percutaneous tracheotomy can offer an organizational advantage compared to the surgical one because procedures can be performed at the bedside.⁸ This can be particularly useful in conditions of high demand,

when almost all of the operating rooms are being used as ICU stations.

In conclusion, early percutaneous tracheotomy, even when performed in COVID-19 patients, appears to be safe for healthcare workers when personal protective equipment is used.

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References

- Hosokawa K, Nishimura M, Egi M, Vincent J-L. Timing of tracheotomy in ICU patients: a systematic review of randomized controlled trials. *Crit Care* 2015;19:424.
- Mechem JC, Thomas OJ, Pargousis P, Janus JR. Utility of tracheostomy in patients with COVID-19 and other special considerations. *Laryngoscope* 2020;130:2546–2549.
- McGrath BA, Ashby N, Birchall M, *et al*. Multidisciplinary guidance for safe tracheostomy care during the COVID-19 pandemic: the NHS National Patient Safety Improvement Programme (NatPatSIP). *Anaesthesia* 2020; 75:1659–1670.
- Sommer DD, Engels PT, Weitzel EK, *et al*. Recommendations from the CSO-HNS task force on performance of tracheotomy during the COVID-19 pandemic. *J Otolaryngol Head Neck Surg* 2020;49:23.
- Tran K, Cimon K, Severn M, Pessoa-Silva CL, Conly J. Aerosol-Generating procedures and risk of transmission of acute respiratory infections to healthcare workers: a systematic review. *PLoS One* 2012;7:e35797.
- Rosano A, Martinelli E, Fusina F, *et al*. Early percutaneous tracheostomy in coronavirus disease 2019. *Crit Care Med* 2020. doi: 10.1097/CCM.0000000000004752.
- Mattioli F, Fermi M, Ghirelli M, *et al*. Tracheostomy in the COVID-19 pandemic. *Eur Arch Otorhinolaryngol* 2020;277:2133–5.
- Higgins KM, Punthakee X. Meta-analysis comparison of open versus percutaneous tracheostomy. *Laryngoscope* 2007;117:447–454.

Do we put frontline healthcare workers at more risk with the current CDC and WHO recommendations for ending isolation and precautions?

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To the Editor—Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has been a global health threat for nearly a year.¹ In China,

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~4% of confirmed cases in the first month of the COVID-19 outbreak occurred among healthcare workers, with even higher rates in Europe.² With the current surge of COVID-19 cases, we are seeing an increasing number of inpatients with COVID-19. The mean hospitalization period (HP) revealed in one meta-analysis can be 14.88 days, and some studies indicate a mean HP >20 days.³

In our hospital, we also have patients who have been hospitalized for >20 days or remain hospitalized beyond 20 days of

symptom onset. Recently, isolation and precautions of an ICU patient hospitalized beyond 20 days of symptom onset were removed by infection control advisers based on Centers for Disease Control and Prevention (CDC) recommendations that patients with more severe to critical illness or severe immunocompromise likely remain infectious no longer than 20 days after symptom onset, and extending duration of isolation and precautions for up to 20 days after symptom onset for severe cases is warranted.⁴ A 46-year-old female patient with a past medical history of essential hypertension initially presented with fever, shortness of breath, diarrhea, and cough. She tested positive for SARS-CoV-2 and required medical ICU care for multi-organ failure secondary to COVID-19. Isolation precautions were removed on day 21 of her symptom onset. Examination, medication administration, and procedures including terminal extubation were performed without precaution until her death 25 days after onset of symptoms. Notably, a repeated SARS-CoV-2 PCR test on day 23 of her symptoms was positive. After ending the isolation precautions, 1 ICU resident developed fever, cough, and shortness of breath within 2 days after exposure and tested positive for SARS-CoV-2. She is currently hospitalized for severe COVID-19. In addition, 3 ICU nurses also tested positive for SARS-CoV-2, with symptoms of cough, fever, anosmia, and dysgeusia. Furthermore, 3 of 5 other ICU residents developed transient mild symptoms, including diarrhea, cough, and myalgia within 2–7 days after exposure, but they were not tested for SARS-CoV-2. These staff members did not have any other known exposure to SARS-CoV-2. Universal masking, eye protection, gowning, gloves, hair cover, and shoe covers were implemented for all patient encounters, and appropriate personal protective equipment was used for patients with suspected or confirmed COVID-19.



COVID-19 patients who have been infectious for >20 days have been reported in a peer-reviewed journal,⁵ and severe COVID-19 infection has been associated with prolonged viral shedding.⁶ WHO recommendations on isolation cited the range of viral shedding as 0–20 days from a personal communication published on a preprint website instead of in a peer-reviewed journal,^{7,8} or from a study of asymptomatic patients⁹ or animal

models.¹⁰ In the setting of an unprecedented global pandemic, this reckless recommendation on ending isolation and precautions may put frontline healthcare workers at an unnecessary higher risk of being infected and thus may exacerbate critical staff shortages. Using an abundance of caution, we should rethink the recommended criteria for releasing COVID-19 patients from isolation.

References

- Guddati A. Protection of healthcare professionals during an epidemic: medical, ethical, and legal ramifications. *Interact J Med Res* 2020; 9:e19144.
- Rhee C, Baker MA, Klompas M. The COVID-19 infection control arms race. *Infect Control Hosp Epidemiol* 2020. doi: [10.1017/ice.2020.211](https://doi.org/10.1017/ice.2020.211).
- Sarmadi M, Kakhki S, Foroughi M, et al. Hospitalization period of COVID-19 for future plans in hospital. *Br J Surg* 2020. doi: [10.1002/bjs.11871](https://doi.org/10.1002/bjs.11871).
- Duration of isolation and precautions for adults with COVID-19. Centers for Disease Control and Prevention website. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>. Accessed November 30, 2020.
- Avanzato VA, Matson MJ, Seifert SN, et al. Case study: prolonged infectious SARS-CoV-2 shedding from an asymptomatic immunocompromised individual with cancer. *Cell* 2020. doi: [10.1016/j.cell.2020.10.049](https://doi.org/10.1016/j.cell.2020.10.049).
- Lu Y, Li Y, Deng W, et al. Symptomatic infection is associated with prolonged duration of viral shedding in mild coronavirus disease 2019: a retrospective study of 110 children in Wuhan. *Pediatr Infect Dis J* 2020;39:e95–e99.
- Criteria for releasing COVID-19 patients from isolation. World Health Organization website. <https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation>. Published 2020. Accessed November 30, 2020.
- Lu J, Peng J, Xiong Q, et al. Clinical, immunological and virological characterization of COVID-19 patients that test re-positive for SARS-CoV-2 by RT-PCR. *Medrxiv* 2020. doi: [10.1101/2020.06.15.20131748](https://doi.org/10.1101/2020.06.15.20131748). (Preprint.)
- Zhou R, Li F, Chen F, et al. Viral dynamics in asymptomatic patients with COVID-19. *Int J Infect Dis* 2020;96:288–290.
- Sia SF, Yan LM, Chin AWH, et al. Pathogenesis and transmission of SARS-CoV-2 in golden hamsters. *Nature* 2020;583:834–838.

Assessing the infection risk of a vertical garden in a hospital setting

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To the Editor—Although being exposed to nature may accelerate healing and enhance patients' well-being,¹ organic material and

water sources in healthcare institutions can be harmful.² There is little evidence on the impact of indoor gardens in healthcare settings; thus, we evaluated the potential for environmental contamination of an indoor plant wall from the time of its construction on to assess its risk for patient safety.

In 2016, an addition to our hospital was planned that included a windowless, 11-m² (118 ft²) waiting area next to the physical therapy rooms. Together with an interior designer and the infection prevention

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PREVIOUS PRESENTATION. These results were presented at the annual meeting of the Swiss Society for Hospital Hygiene in Lausanne, Switzerland, September 2019.

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