

## In Reply: Rongeurs, Neurosurgeons, and COVID-19: How Do We Protect Health Care Personnel During Neurosurgical Operations in the Midst of Aerosol-Generation From High-Speed Drills?

To the Editor:

We appreciated the manuscript by Chan et al,<sup>1</sup> “Rongeurs, Neurosurgeons, and COVID-19: How Do We Protect Health Care Personnel During Neurosurgical Operations in the Midst of Aerosol-Generation From High-Speed Drills?” published April 2020 in *Neurosurgery*.

We are grateful to the authors of the letter<sup>1</sup> for their precise analysis and useful recommendations to fellow neurosurgeons and trainees to uphold the traditional craft of using hand drills and rongeurs in order to minimize aerosol generation from the neurosurgical-powered instruments during the COVID-19 pandemic.

Nevertheless, we write in reply to present our surgical experience during the COVID-19 pandemic.

We test all emergency patients coming to the hospital with the nasopharyngeal tampon for COVID-19 directly at the Emergencies, where we have special isolated rooms for suspected COVID-19 patients, or we ask to make the test in the peripheral hospitals. If we can, we wait the results, which usually arrive in around 4 to 6 h. In the meantime, the patient is hospitalized in an isolated room.

If the patient needs an emergency operation, we perform the operation without waiting for the test results, but treating the patient as COVID-19 positive, with full protection measures and equipment for surgeons, nurses, and anesthesiologists.

In the operating room, we try to use hand-drill and rongeurs when it is feasible, for example, for burr-hole or external ventricular drain (EVD); if we need the high-speed drill, for example, in the case of an anterior clinoidectomy, we will use it. After the operation, the patient will not be extubated and will transfer to the neurosurgical intensive care unit (ICU), in an isolated room for suspected COVID-19 patients. In this room, a trained nurse stays, waiting for the test results.

If the results are positive, the patient will be transferred to the “Covid-House,” an isolated department only for COVID-19-positive patients. In this case, all the medical and paramedical staff, who were in contact with the patient, should go to quarantine for 14 d. In the case of negative results, the patient will

transfer to the normal ICU or normal ward. Using this scheme, so far, our neurosurgical department has been COVID-19 free. We are glad to share our experience with the other colleagues and we hope that it could be useful to increase daily practice’s safety.

### Disclosures

The authors have no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

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### REFERENCE

1. Chan DYC, Chan DTM, Mak WK, Wong GKC, Poon WS. Letter: rongeurs, neurosurgeons, and COVID-19: how do we protect health care personnel during neurosurgical operations in the midst of aerosol-generation from high-speed drills? *Neurosurgery*. published online: April 17, 2020 (doi:10.1093/neuros/nyaa139).

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