

# Adaptation Allowing for Bronchial Blocker Proximal Port Filtration during Lung Isolation for Patients with Airborne Precautions

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Fig. 1.

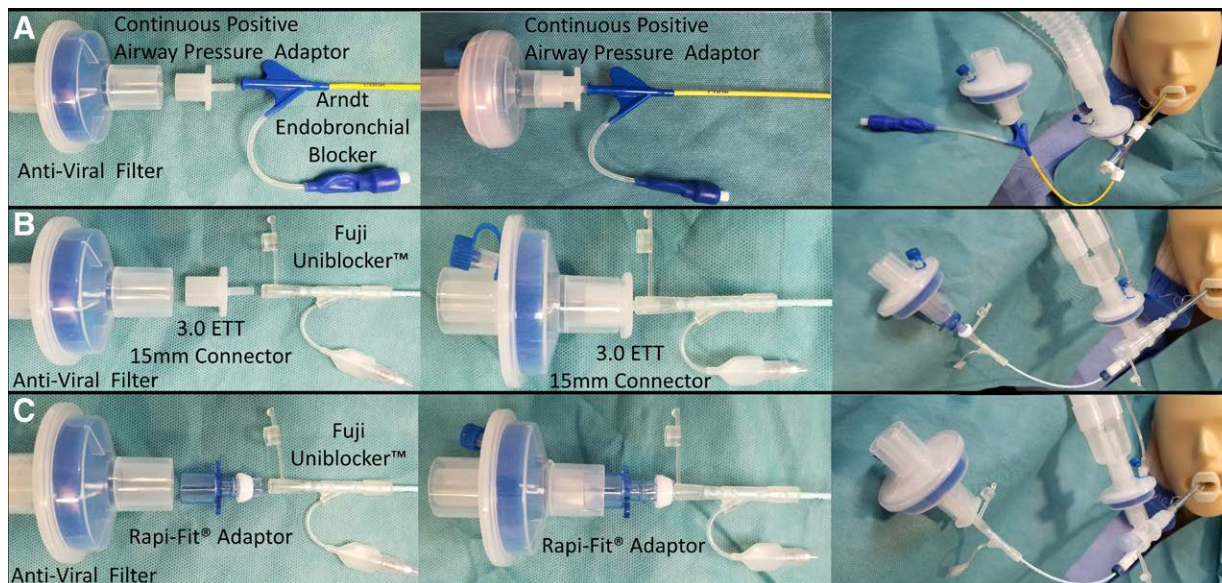


Fig. 2.

**A**IRBORNE precautions are recommended in patients with bacterial and viral infections transferred *via* aerosolization (including *Mycobacterium tuberculosis*, rubeola, varicella,

influenza and coronavirus disease 2019 [COVID-19]). Surgical procedures requiring lung isolation during airborne precautions require adaptations to limit environmental contamination.<sup>1</sup>

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A double lumen tube or bronchial blocker may be used for lung isolation.<sup>2</sup> An unfiltered, open airway is problematic during airborne precautions. Previously described, an antiviral filter should be placed on the surgical lung lumen of a double lumen tube (fig. 1).<sup>1,3</sup>

After positioning, opening of the bronchial blocker proximal port to the atmosphere allows for surgical lung deflation. The Arndt Endobronchial Blocker Set (Cook Medical, USA) contains a continuous positive airway pressure 15-mm adaptor, which when inserted into the proximal port facilitates antiviral filter application (fig. 2A). The Fuji Uniblocker (Ambu Inc., USA) lacks a continuous positive airway pressure adaptor. The 15-mm connector from a 3.0 endotracheal tube fits within the proximal end of a 9.0 Fr Fuji Uniblocker (fig. 2B). Also, the Rapi-Fit Adaptor (Cook Medical) within the 19 Fr Aintree Intubation Catheter Set (Cook Medical) attaches around the proximal end of a bronchial blocker, providing a 15-mm connection (fig. 2C).

Using these adaptive measures in six airborne precaution patients, lung isolation has been successful. Clinically, the low-resistance antiviral filter did not impede lung deflation using a double lumen tube or bronchial blocker. Although bronchial blocker proximal port aspiration may facilitate deflation, this may unnecessarily increase aerosolization risk. Supporting the antiviral filter prevents dislodgment of the double lumen tube or bronchial blocker. Using the techniques described, lung isolation in patients requiring airborne precautions has been successful.

### Competing Interests

The authors declare no competing interests.

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