

# THE LANCET

## Infectious Diseases

### Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed.  
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Supplement to: Koehler P, Bassetti M, Chakrabarti A, et al. Defining and managing COVID-19-associated pulmonary aspergillosis: the 2020 ECMM/ISHAM consensus criteria for research and clinical guidance. *Lancet Infect Dis* 2020; published online Dec 14. [https://doi.org/10.1016/S1473-3099\(20\)30847-1](https://doi.org/10.1016/S1473-3099(20)30847-1).

Supplemental Material to manuscript entitled

**Defining and Managing COVID-19 Associated Pulmonary Aspergillosis: The 2020 ECMM/ISHAM  
Consensus Criteria for Research and Clinical Guidance**

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## **Mandatory Supportive Measures**

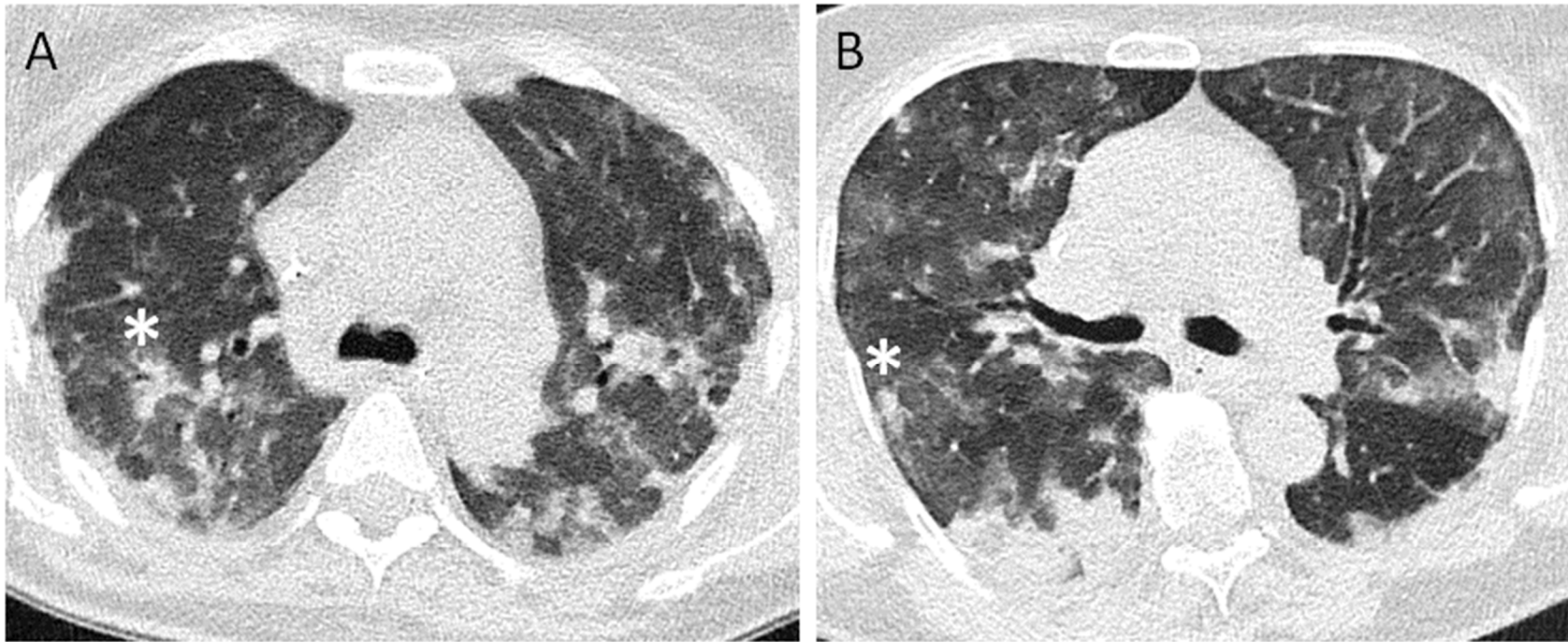
Observational studies suggest that CAPA develops through the disease course predominantly in patients in the ICU and with ARDS, in whom optimal respiratory management often determines patient outcome.<sup>1,2</sup> Guidance on the management of COVID-19 associated ARDS is in development or has been issued by several societies, organizations and experts.<sup>3-5</sup> Importantly, these guidelines are largely based on experiences in the management of ARDS caused by other pathogens, in particular influenza and only limited data and case series of patients with COVID-19 are available to date.<sup>6-8</sup> In brief, early prone positioning, including self-proning in non-intubated patients and the use of non-invasive techniques as high flow oxygen delivered via nasal cannulas (HFNC) or non-invasive ventilation (NIV) have proven useful in COVID-19 patients with mild ARDS and can safely be applied with appropriate barrier precautions and close monitoring.<sup>9-11</sup>

Upon respiratory deterioration, early intubation and lung protective ventilation is warranted. Prone positioning during mechanical ventilation in patients with severe ARDS ( $\geq 16$  hours per day) is effective and might be beneficial even in some patients with only mild to moderate ARDS.<sup>12,13</sup> Veno-venous ECMO may be considered as rescue strategy in patients with refractory respiratory failure. However, whether ECMO is beneficial during COVID-19 triggered cytokine storm or hypercoagulability is yet unclear.

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**Supplemental figure**



**Figure S1 CT Imaging**

Low-dose CT from COVID-19 patients with A) confirmed aspergillosis and B) without fungal infection. In both patients, focal nodular consolidations with adjacent ground glass opacities (\*) as one frequent finding in pulmonary aspergillosis are present, underlining low specificity in peak and late COVID-19 stages.