

Supplemental table. ICU-, microbiological- and histopathological characteristics of COVID-19 patients in which probable or proven COVID-19 associated pulmonary aspergillosis was diagnosed during ICU-admission.

| Antifungal prophylaxis | APACHE-IV | Days between COVID onset and ICU-admission | ICU-admission day start IMV <sup>a</sup> | ICU-admission day first <i>Aspergillus</i> was cultured | ICU-admission day first BAL | BAL GM OD | <i>Aspergillus</i> RT-PCR on BAL | Tracheo-bronchial plaque(s) | Histopathological examination of a biopsy sample | <i>Aspergillus</i> RT-PCR on biopsy sample | Proven invasive CAPA | Days admitted to ICU | 90 days Outcome       |
|------------------------|-----------|--|--|---|-----------------------------|-----------|----------------------------------|-----------------------------|--|--|----------------------|----------------------|-----------------------|
| No                     | 72        | 15   | 1  | 6   | 9                           | 5.88      | .                                | Yes                         | Fungal hyphae, no tissue invasion                | Positive                                   | Yes                  | 43                   | Deceased <sup>d</sup> |
| No                     | 83        | 7  | 2  | 5   | 7                           | 4.74      | .                                | Yes                         | Fungal hyphae with tissue invasion               | .  | Yes                  | 12                   | Deceased              |
| No                     | 72        | 8  | 1  | 6   | 9                           | 7.25      | .                                | Yes                         | .  | .  | No                   | 17                   | Deceased              |
| No                     | 117       | 7  | 1  | 2   | 3                           | 5.65      | .                                | Yes                         | Fungal hyphae, no tissue invasion                | Negative <sup>c</sup>                      | No                   | 16                   | Deceased <sup>e</sup> |
| No                     | 82        | .  | 1  | 5   | 7                           | 6.82      | .                                | Yes                         | .  | .  | No                   | 25                   | Alive                 |
| No                     | 81        | 10   | 1  | 8   | 8                           | 0.14      | .                                | Yes                         | Fungal hyphae with tissue invasion               | Positive                                   | Yes                  | 18                   | Alive                 |
| No                     | 77        | 6  | 2  | 6   | 9                           | 6.01      | .                                | Yes                         | .  | .  | No                   | 22                   | Alive                 |
| No                     | 53        | 7  | 2  | 7   | 10                          | 1.50      | .                                | No                          | .  | .  | No                   | 54                   | Alive                 |
| No                     | 56        | 11   | 6  | .   | 12                          | 1.13      | Negative                         | No                          | .  | .  | No                   | 33                   | Alive                 |
| No                     | 100       | 13   | 1  | 5   | 8                           | 3.97      | Positive                         | No                          | .  | .  | No                   | 33                   | Alive                 |
| Yes                    | 69        | 13   | 1  | .   | 12                          | 5.13      | Negative                         | No                          | .  | .  | No                   | 34                   | Deceased <sup>f</sup> |
| Yes                    | 58        | 12   | 11                                       | 10 <sup>b</sup>   | 10                          | 0.33      | Positive                         | No                          | .  | .  | No                   | 28                   | Alive                 |
| Yes                    | 60        | 8  | 2  | 2 <sup>b</sup>  | 6                           | 3.76      | .                                | Yes                         | No signs of inflammation                         | Negative                                   | No                   | 50                   | Alive                 |

<sup>a</sup> = start antifungal prophylaxis in those who received antifungal prophylaxis; <sup>b</sup> = sputum cultured before or at the initiation of invasive mechanical ventilation; <sup>c</sup> = PCR performed on lung biopsy obtained at autopsy, as tissue sample of tracheobronchial plaque that was obtained earlier during bronchoscopy appeared ineligible for RT-PCR. <sup>d</sup> = autopsy revealed disseminated mucormycosis infection of kidneys, left lower pulmonary lobe and bladder <sup>e</sup> = autopsy revealed organizing pneumonia in left pulmonary lobe without fungal hyphae, two weeks after treatment with systemic antifungal therapy <sup>f</sup> = Patient died with a cryptogenic organizing pneumonia and central pulmonary embolus.

Abbreviations: APACHE = Acute Physiologic Assessment and Chronic health Evaluation; ICU = Intensive Care Unit; BAL = Broncho Alveolar Lavage; GM = Galactomannan; OD = Optical Density; RT-PCR = Real Time reverse Polymerase Chain Reaction