

**Supplementary Table 1 Multidrug-resistant organism colonization episodes stratified by decompensation phenotype (acute decompensation *vs* acute-on-chronic liver failure), *n* (%)**

| MDRO species                                   | Total ( <i>n</i> ) | AD       | ACLF      | <i>P</i> value <sup>1</sup> |
|------------------------------------------------|--------------------|----------|-----------|-----------------------------|
| MDR <i>A. baumannii</i>                        | 8                  | 1 (12.5) | 7 (87.5)  | 0.508                       |
| <i>Klebsiella oxytoca</i> , OXA-48             | 1                  | 0 (0.0)  | 1 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , ESBL            | 1                  | 0 (0.0)  | 1 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , ESBL and OXA-48 | 4                  | 0 (0.0)  | 4 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , KPC             | 1                  | 0 (0.0)  | 1 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , OXA-48          | 8                  | 1 (12.5) | 7 (87.5)  | 0.508                       |
| MDR <i>Pseudomonas spp.</i>                    | 2                  | 0 (0.0)  | 2 (100.0) | 1                           |
| VRE                                            | 4                  | 0 (0.0)  | 4 (100.0) | 1                           |
| MRSA                                           | 10                 | 1 (10.0) | 9 (90.0)  | 1                           |

<sup>1</sup>*P* values were calculated using Fisher's exact test.

MDRO: Multidrug-resistant organism; OXA-48: Oxacillinase-48; ESBL: Extended-spectrum beta-lactamase; KPC: *Klebsiella pneumoniae* carbapenemase; MDR: Multidrug-resistant; VRE: Vancomycin-resistant *Enterococcus spp.*; MRSA: Methicillin-resistant *Staphylococcus aureus*.

**Supplementary Table 2 Multidrug-resistant organism infection episodes stratified by decompensation phenotype (acute decompensation *vs* acute-on-chronic liver failure), *n* (%)**

| MDRO species                                   | Total ( <i>n</i> ) | AD       | ACLF      | <i>P</i> value <sup>1</sup> |
|------------------------------------------------|--------------------|----------|-----------|-----------------------------|
| MDR <i>A. baumannii</i>                        | 21                 | 5 (23.8) | 16 (76.2) | 0.13                        |
| <i>Escherichia coli</i> , ESBL                 | 2                  | 0 (0.0)  | 2 (100.0) | 1                           |
| <i>Escherichia coli</i> , ESBL- and OXA-48     | 1                  | 0 (0.0)  | 1 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , ESBL            | 2                  | 0 (0.0)  | 2 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , ESBL and OXA-48 | 3                  | 0 (0.0)  | 3 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , KPC             | 2                  | 0 (0.0)  | 2 (100.0) | 1                           |
| <i>Klebsiella pneumoniae</i> , OXA-48          | 11                 | 1 (9.1)  | 10 (90.9) | 1                           |
| VRE                                            | 6                  | 1 (16.7) | 5 (83.3)  | 1                           |
| MRSA                                           | 9                  | 1 (11.1) | 8 (88.9)  | 1                           |

<sup>1</sup>*P* values were calculated using Fisher's exact test.

MDRO: Multidrug-resistant organism; *A. baumannii*: *Acinetobacter baumannii*; ESBL: Extended-spectrum beta-lactamase; OXA-48: Oxacillinase-48; KPC: *Klebsiella pneumoniae* carbapenemase; MDR: Multidrug-resistant; VRE: Vancomycin-resistant *Enterococcus spp.*; MRSA: Methicillin-resistant *Staphylococcus aureus*.

**Supplementary Table 3 Types of clinical infections stratified by decompensation phenotype, *n* (%)**

| <b>Infection type</b>           | <b>Total (<i>n</i>)</b> | <b>AD</b> | <b>ACLF</b> | <b><i>P</i> value</b> |
|---------------------------------|-------------------------|-----------|-------------|-----------------------|
| UTI                             | 26                      | 6 (30.0)  | 20 (23.0)   | 0.711                 |
| Pneumonia                       | 75                      | 12 (60.0) | 63 (72.4)   | 0.411                 |
| Hepatic/Intraabdominal abscess  | 1                       | 0 (0.0)   | 1 (1.1)     | 1                     |
| SSTI                            | 13                      | 0 (0.0)   | 13 (14.9)   | 0.121                 |
| Bacteremia                      | 26                      | 4 (20.0)  | 22 (25.3)   | 0.776                 |
| Cholangitis                     | 1                       | 0 (0.0)   | 1 (1.1)     | 1                     |
| Clostridium difficile infection | 5                       | 1 (5.0)   | 4 (4.6)     | 1                     |
| SBP                             | 1                       | 0 (0.0)   | 1 (1.1)     | 1                     |
| Unproven bacterial infection    | 4                       | 0 (0.0)   | 4 (4.6)     | 1                     |

UTI: Urinary tract infection; SSTI: Skin and soft tissue infection; SBP: Spontaneous bacterial peritonitis; AD: Acute decompensation; ACLF: Acute-on-chronic liver failure.