### Supplementary Table 4. Clinical features and epidemiologic characteristics in non-spreaders, usual-spreaders, and super-spreaders during the 2015 Korean outbreak of MERS-CoV, after censoring healthcare workers (n = 39)

<table>
<thead>
<tr>
<th>Patient and epidemiologic characteristics</th>
<th>Non-spreader (n = 135)</th>
<th>Usual-spreader (n = 7)</th>
<th>Super-spreader (n = 5)</th>
<th>P-value Non-spreader vs. spreader</th>
<th>P-value Usual-spreader vs. super-spreader</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age, mean (± SD)</td>
<td>57.9 (± 14.4)</td>
<td>60.0 (± 16.1)</td>
<td>50.6 (± 19.3)</td>
<td>0.680</td>
<td>0.344</td>
</tr>
<tr>
<td>Male</td>
<td>86 (63.7)</td>
<td>1 (14.3)</td>
<td>1 (20.0)</td>
<td>0.188</td>
<td>0.794</td>
</tr>
<tr>
<td><strong>Underlying diseases</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM</td>
<td>30 (22.2)</td>
<td>0 (0.0)</td>
<td>1 (20.0)</td>
<td>0.282</td>
<td>1.000</td>
</tr>
<tr>
<td>Hypertension</td>
<td>45 (33.3)</td>
<td>3 (42.9)</td>
<td>1 (20.0)</td>
<td>1.000</td>
<td>0.417</td>
</tr>
<tr>
<td>Chronic kidney diseases</td>
<td>8 (5.9)</td>
<td>1 (14.3)</td>
<td>0 (0.0)</td>
<td>0.740</td>
<td>1.000</td>
</tr>
<tr>
<td>Chronic heart diseases</td>
<td>15 (11.1)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>0.999</td>
<td>0.566</td>
</tr>
<tr>
<td>Chronic lung diseases</td>
<td>16 (11.9)</td>
<td>2 (28.6)</td>
<td>0 (0.0)</td>
<td>0.628</td>
<td>0.999</td>
</tr>
<tr>
<td>Chronic liver diseases</td>
<td>9 (6.7)</td>
<td>1 (14.3)</td>
<td>0 (0.0)</td>
<td>0.826</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Clinical characteristics at presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Signs and symptoms</strong>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fever (≥ 38.5°C)</td>
<td>19 (14.3)</td>
<td>2 (28.6)</td>
<td>1 (20.0)</td>
<td>0.330</td>
<td>0.736</td>
</tr>
<tr>
<td>Systolic BP ≥ 90 mmHg</td>
<td>8 (6.0)</td>
<td>2 (28.6)</td>
<td>0 (0.0)</td>
<td>0.183</td>
<td>0.999</td>
</tr>
<tr>
<td>Diastolic BP ≥ 60 mmHg</td>
<td>24 (18.0)</td>
<td>2 (28.6)</td>
<td>1 (20.0)</td>
<td>0.556</td>
<td>0.736</td>
</tr>
<tr>
<td>Respiratory rate &gt; 24/min</td>
<td>18 (13.5)</td>
<td>4 (57.1)</td>
<td>0 (0.0)</td>
<td>0.080</td>
<td>0.999</td>
</tr>
<tr>
<td>Cough</td>
<td>76 (57.1)</td>
<td>6 (85.7)</td>
<td>4 (80.0)</td>
<td>0.096</td>
<td>0.794</td>
</tr>
<tr>
<td>Sputum</td>
<td>56 (42.1)</td>
<td>6 (85.7)</td>
<td>2 (40.0)</td>
<td>0.112</td>
<td>0.120</td>
</tr>
<tr>
<td>Dyspnea</td>
<td>30 (22.6)</td>
<td>5 (71.4)</td>
<td>3 (60.0)</td>
<td>0.003</td>
<td>0.680</td>
</tr>
<tr>
<td>Myalgia</td>
<td>58 (43.3)</td>
<td>5 (71.4)</td>
<td>3 (60.0)</td>
<td>0.130</td>
<td>0.680</td>
</tr>
<tr>
<td>Headache</td>
<td>28 (20.9)</td>
<td>1 (14.3)</td>
<td>2 (40.0)</td>
<td>0.740</td>
<td>0.327</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>28 (20.9)</td>
<td>0 (0.0)</td>
<td>2 (40.0)</td>
<td>0.729</td>
<td>0.999</td>
</tr>
<tr>
<td>Laboratory tests</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WBC &gt; 10,000/µL or &lt; 4,000/µL</td>
<td>64 (51.2)</td>
<td>3 (42.9)</td>
<td>4 (80.0)</td>
<td>0.638</td>
<td>0.216</td>
</tr>
<tr>
<td>Platelet &lt; 100,000/µL</td>
<td>28 (22.4)</td>
<td>3 (42.9)</td>
<td>2 (40.0)</td>
<td>0.146</td>
<td>0.921</td>
</tr>
<tr>
<td>CRP ≥ 3.0 mg/dL</td>
<td>60 (51.3)</td>
<td>6 (100.0)</td>
<td>4 (80.0)</td>
<td>0.035</td>
<td>1.000</td>
</tr>
<tr>
<td>BUN &gt; 20 mg/dL</td>
<td>22 (18.2)</td>
<td>4 (57.1)</td>
<td>0 (0.0)</td>
<td>0.217</td>
<td>0.999</td>
</tr>
<tr>
<td>Creatinine &gt; 1.5 mg/dL</td>
<td>8 (6.6)</td>
<td>1 (14.3)</td>
<td>0 (0.0)</td>
<td>0.821</td>
<td>1.000</td>
</tr>
<tr>
<td>CXR abnormality in more than 3 lung zones</td>
<td>16 (12.4)</td>
<td>4 (57.1)</td>
<td>2 (40.0)</td>
<td>0.002</td>
<td>0.560</td>
</tr>
<tr>
<td><strong>Symptom onset to negative conversion, day, median (IQR)</strong></td>
<td>17.0 (14.0–20.8)</td>
<td>21.0 (18.0–35.0)</td>
<td>28.3 (32.0–43.3)</td>
<td>0.001</td>
<td>0.207</td>
</tr>
<tr>
<td><strong>Clinical outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical ventilation*</td>
<td>31 (23.3)</td>
<td>6 (85.7)</td>
<td>2 (40.0)</td>
<td>0.004</td>
<td>0.120</td>
</tr>
<tr>
<td>Days from symptom onset to mechanical ventilation, median (IQR)*</td>
<td>1.0 (7.8–12.0)</td>
<td>6.0 (5.0–9.0)</td>
<td>10.5 (9.0–12.0)</td>
<td>0.252</td>
<td>0.172</td>
</tr>
<tr>
<td>Mortality</td>
<td>30 (22.2)</td>
<td>4 (57.1)</td>
<td>1 (20.0)</td>
<td>0.140</td>
<td>0.216</td>
</tr>
<tr>
<td>Days from symptom onset to death, median (IQR)</td>
<td>14.5 (11.5–21.0)</td>
<td>9.0 (3.8–9.0)</td>
<td>5.0 (5.0–5.0)</td>
<td>0.032</td>
<td>0.504</td>
</tr>
<tr>
<td><strong>Epidemiologic characteristics</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase in chain of transmission</td>
<td></td>
<td></td>
<td></td>
<td>0.002</td>
<td>0.124</td>
</tr>
<tr>
<td>Primary</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td>1 (20.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>21 (15.9)</td>
<td>2 (33.3)</td>
<td>3 (60.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>100 (75.8)</td>
<td>4 (66.7)</td>
<td>1 (20.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary</td>
<td>11 (8.3)</td>
<td>0 (0.0)</td>
<td>0 (0.0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Symptom onset after June 7**</td>
<td>29 (22.0)</td>
<td>2 (28.6)</td>
<td>0 (0.0)</td>
<td>0.670</td>
<td>0.999</td>
</tr>
<tr>
<td>Median incubation period, day, median (± SD)**</td>
<td>7.3 (± 4.5)</td>
<td>7.5 (± 2.9)</td>
<td>8.0 (± 5.0)</td>
<td>0.741</td>
<td>0.819</td>
</tr>
<tr>
<td>Symptom onset to isolation, day, median (± SD)**</td>
<td>3.9 (± 3.8)</td>
<td>4.6 (± 2.4)</td>
<td>6.8 (± 3.4)</td>
<td>0.169</td>
<td>0.211</td>
</tr>
<tr>
<td>Nonisolated in-hospital days, median (IQR)</td>
<td>1.0 (0.0–2.0)</td>
<td>1.0 (0.0–4.0)</td>
<td>7.0 (3.0–9.0)</td>
<td>0.002</td>
<td>0.061</td>
</tr>
<tr>
<td>Nonisolated in-hospital days ≥ 2 day</td>
<td>47 (34.8)</td>
<td>4 (57.1)</td>
<td>5 (100.0)</td>
<td>0.012</td>
<td>0.999</td>
</tr>
<tr>
<td>Symptom onset to diagnosis, day, median (± SD)**</td>
<td>7.0 (± 3.9)</td>
<td>7.1 (± 2.5)</td>
<td>8.8 (± 3.4)</td>
<td>0.450</td>
<td>0.325</td>
</tr>
</tbody>
</table>

Data shown are number (%) not otherwise specified.

MERS-CoV = Middle East Respiratory Syndrome Coronavirus, SD = standard deviation, DM = diabetes mellitus, BP = blood pressure, WBC = white blood cell, CRP = C-reactive protein, BUN = blood urea nitrogen, CXR = chest X-ray, IQR = interquartile range.

*Data were unavailable in 2 cases (1.4%); †Data were unavailable in 10 cases (6.8%); ††Data were unavailable in 19 cases (12.9%); ‡Data were unavailable in 14 cases (9.5%); §Data were unavailable in 6 cases (4.1%); †‡Data were unavailable in 40 cases (27.2%); **Data were unavailable in 3 cases (2.0%); †††Data were unavailable in 5 cases (3.4%).