Supplementary Material. Calculation equations of g(x) for predicting mortality.

g(x) in Model 1 for in-hopital mortality

$$
\begin{aligned}
g(x) = {} & -4.258 + (-0.142) \times Sex_2 + 0.012 \times Age\,group_2 + 0.259 \times Age\,group_3 + 0.438 \times Age\,group_4 \\
& + 0.490 \times Age\,group_5 + 0.878 \times Age\,group_6 + 1.327 \times Age\,group_7 + 1.948 \times Age\,group_8 \\
& + 0.065 \times CCIgroup_2 + 0.26 \times CCIgroup_3 + 0.464 \times CCIgroup_4 + 1.081 \times Respirator_2 \\
& + 0.982 \times CRRT,Dialysis_2 + 1.335 \times Drugs_2
\end{aligned}
$$

g(x) in Model 1 for ICU mortality

$$
\begin{aligned}
g(x) = {} & -4.336 + (-0.085) \times Sex_2 + (-0.224) \times Age\,group_2 + 0.101 \times Age\,group_3 + 0.251 \times Age\,group_4 \\
& + 0.275 \times Age\,group_5 + 0.514 \times Age\,group_6 + 0.948 \times Age\,group_7 + 1.449 \times Age\,group_8 \\
& + 0.029 \times CCIgroup_2 + 0.19 \times CCIgroup_3 + 0.221 \times CCIgroup_4 + 1.22 \times Respirator_2 \\
& + 1 \times CRRT,Dialysis_2 + 1.368 \times Drugs_2
\end{aligned}
$$

g(x) in Model 2 for in-hopital mortality

$$
\begin{aligned}
g(x) = {} & -4.644 + (-0.141) \times Sex_2 + (-0.022) \times Age\,group_2 + 0.214 \times Age\,group_3 + 0.391 \times Age\,group_4 \\
& + 0.436 \times Age\,group_5 + 0.799 \times Age\,group_6 + 1.163 \times Age\,group_7 + 1.689 \times Age\,group_8 \\
& + 0.087 \times CCIgroup_2 + 0.287 \times CCIgroup_3 + 0.459 \times CCIgroup_4 + 1.282 \times Respirator_2 \\
& + 1.088 \times CRRT,Dialysis_2 + 1.453 \times Drugs_2 + 0.154 \times Nrse\,grade_2 + 0.422 \times Nrse\,grade_3 \\
& + 0.955 \times Nrse\,grade_4 + 0.506 \times Nrse\,grade_5 + 1.111 \times Nrse\,grade_6 + 1.111 \times Nrse\,grade_7 \\
& + 0.97 \times Nrse\,grade_8 + 0.944 \times Nrse\,grade_9 + (-0.098) \times Special\,doctor_2
\end{aligned}
$$

g(x) in Model 2 for ICU mortality

$$
\begin{aligned}
g(x) = {} & -4.8 + (-0.08) \times Sex_2 + (-0.265) \times Age\,group_2 + 0.043 \times Age\,group_3 + 0.194 \times Age\,group_4 \\
& + 0.208 \times Age\,group_5 + 0.412 \times Age\,group_6 + 0.746 \times Age\,group_7 + 1.14 \times Age\,group_8 \\
& + 0.051 \times CCIgroup_2 + 0.215 \times CCIgroup_3 + 0.201 \times CCIgroup_4 + 1.471 \times Respirator_2 \\
& + 1.132 \times CRRT,Dialysis_2 + 1.51 \times Drugs_2 + 0.263 \times Nrse\,grade_2 + 0.554 \times Nrse\,grade_3 \\
& + 0.988 \times Nrse\,grade_4 + 0.634 \times Nrse\,grade_5 + 1.265 \times Nrse\,grade_6 + 1.299 \times Nrse\,grade_7 \\
& + 1.228 \times Nrse\,grade_8 + 1.08 \times Nrse\,grade_9 + (-0.186) \times Special\,doctor_2
\end{aligned}
$$