

## Supplementary Materials

Supplementary table 1. Connection between metformin use and 90-day mortality using an extended approach.

	<b>N</b>	<b>Hazard ratio of metformin use</b>	<b>95% confidence interval</b>	<b><i>P</i> value</b>
<b>Model 1</b>	182	0.18	0.09~0.33	<0.001
<b>Model 2</b>	182	0.19	0.1~0.35	<0.001
<b>Model 3</b>	182	0.22	0.12~0.42	<0.001
<b>Model 4</b>	182	0.29	0.16~0.55	<0.001
<b>Model 5</b>	182	0.29	0.15~0.54	<0.001

Adjusted covariates:

Model 1: age + gender + ethnicity

Model 2: Model 1+ insurance + marital status + body mass index + heart rate + MAP + respiratory rate + temperature

Model 3: Model 2 + glucose level + platelet count + hemoglobin + blood urea nitrogen level + white blood cell count

Model 4: Model 3 + comorbidity diseases + sequential organ failure assessment score + simplified acute physiology score

Model 5: Model 4 + Ventilation

Supplementary table 2. Connection between metformin use and 90-day mortality using an extended approach.

	<b>N</b>	<b>Hazard ratio of metformin use</b>	<b>95% confidence interval</b>	<b><i>P</i> value</b>
<b>Model 1</b>	182	0.15	0.08-0.29	<0.001
<b>Model 2</b>	182	0.14	0.07-0.24	<0.001
<b>Model 3</b>	182	0.15	0.05-0.5	0.002
<b>Model 4</b>	182	0.16	0.05-0.58	0.005
<b>Model 5</b>	182	0.16	0.05-0.58	0.005

Adjusted covariates:

Model 1: age + gender + ethnicity

Model 2: Model 1+ insurance + marital status + body mass index + heart rate + MAP + respiratory rate + temperature

Model 3: Model 2 + glucose level + platelet count + hemoglobin + blood urea nitrogen level + white blood cell count

Model 4: Model 3 + comorbidity diseases + sequential organ failure assessment score + simplified acute physiology score

Model 5: Model 4 + Ventilation