

Online supplementary file 1. Sensitivity analyses in which the association between systolic blood pressure categories and in-hospital mortality were adjusted for other confounders than in the main analysis in the short report. Type of hospital (tertiary care centre or urban hospital) was never a significant confounder in all the analyses shown below nor in the short report main analysis. Note that in all sensitivity analyses the association between systolic blood pressure categories and in-hospital mortality remained similar.

Sensitivity analysis 1. Multivariable logistic regression model for in-hospital mortality in ED patients older than 70 years of age.

	β	Adjusted OR (95%-CI)	P-value
SBP\geq140 mmHg	reference		
SBP 121-139 mmHg	0.793	2.2 (1.1-4.6)	<0.001
SBP 101-120 mmHg	1.125	3.1 (1.5-6.3)	0.003
SBP \leq100 mmHg	1.813	6.1 (2.9-12.8)	<0.001

Primary association of interest was adjusted for the Predisposition, Infection, Response and Organ failure (PIRO) score, as a measure of disease severity and case mix, and full bundle compliance with 9 performance measures, which was used as a measure of quality of care. See literature reference 5 and 8 in the short report.

Note: Incorporation of full compliance with all quality of care indicators rather than admission to MC / ICU in the analysis results in higher odds ratios for the systolic blood pressure categories in older patients.

With every increase in systolic blood pressure category, unadjusted mortality almost linearly decreases.

Abbreviations: ED: Emergency Department. SBP: Systolic blood pressure. OR: Odds Ratio. 95%-CI: 95% confidence interval.

Sensitivity analysis 2. Multivariable logistic regression model for in-hospital mortality in ED patients older than 70 years of age.

	β	Adjusted OR (95%-CI)	P-value
SBP\geq140 mmHg	reference		
SBP 121-139 mmHg	0.496	1.6 (0.8-3.3)	0.168
SBP 101-120 mmHg	0.995	2.7 (1.4-5.4)	0.004
SBP \leq100 mmHg	1.298	3.7 (1.7-7.7)	0.001

Primary association of interest was adjusted for the Predisposition, Infection, Response and Organ failure (PIRO) score, as a measure of disease severity and case mix, and the amount of oxygen and fluids administered in the ED.

Note: Incorporation of amount of fluid administration and supplemental oxygen instead of MC/ICU admission has no influence on the association between systolic blood pressure categories and in-hospital mortality.

With every increase in systolic blood pressure category, unadjusted mortality almost linearly decreases.

Abbreviations: ED: Emergency Department. SBP: Systolic blood pressure. OR: Odds Ratio. 95%-CI: 95% confidence interval.

Sensitivity analysis 3. Multivariable logistic regression model for in-hospital mortality in ED patients older than 70 years of age.

	β	Adjusted OR (95%-CI)	P-value
SBP\geq140 mmHg	reference		
SBP 121-139 mmHg	0.631	1.9 (0.9-3.7)	0.073
SBP 101-120 mmHg	1.100	3.0 (1.5-5.9)	0.004
SBP \leq100 mmHg	1.580	4.9 (2.4-9.8)	<0.001

Primary association of interest was adjusted for the Predisposition, Infection, Response and Organ failure (PIRO) score, as a measure of disease severity and case mix, and the use of antihypertensive medication.

Note:

With every increase in systolic blood pressure category, unadjusted mortality almost linearly decreases.

Abbreviations: ED: Emergency Department. SBP: Systolic blood pressure. OR: Odds Ratio. 95%-CI: 95% confidence interval.