

**Additional file 1:** Univariable analysis. Variables associated with hospital mortality

Variable	OR	95% CI	P	Missing data
Age > 60 years	1.48	(1.15 to 1.91)	0.003	0
Male gender	1.22	(0.94 to 1.58)	0.16	0
Underlying malignancy			0.41	0
Acute leukemia	1			
Chronic malignancy (CLL, CML, MDS)	0.95	(0.63 to 1.41)		
Lymphoma	0.96	(0.70 to 1.30)		
Myeloma	0.68	(0.44 to 1.04)		
Other	1.20	(0.66 to 2.17)		
Disease status			0.005	54
Complete or partial remission or newly diagnosed	1			
Other	1.48	(1.12 to 1.94)		
Days since diagnosis	1.00/day	(0.99 to 1.01)	0.99	97
Allogeneic BMT/HSCT recipient	1.86	(1.30 to 2.65)	0.0007	3
Long course corticosteroids	1.28	(0.99 to 1.66)	0.07	5
Charlson comorbidity index	1.10/point	(1.04 to 1.15)	0.0001	1
Poor PS (>2)	2.50	(1.83 to 3.44)	<0.00001	6
Reason for ICU admission			0.06	55
Sepsis or septic shock	1			
Acute respiratory failure	1.54	(1.11 to 2.14)		
Coma	1.27	(0.73 to 2.19)		
Metabolic disorder or acute kidney injury	0.97	(0.60 to 1.55)		
Other	1.09	(0.71 to 1.66)		
SOFA score	1.22/point	(1.18 to 1.26)	<0.00001	1
Days between hospitalization and first call to intensivist	1.01/day	(1.01 to 1.02)	<0.00001	44
Days between first call to intensivist and ICU admission	1.00/day	(0.93 to 1.07)	0.31	5
ICU admission requested by emergency physician	0.65	(0.47 to 0.90)	0.01	12
Experience of the physician requesting ICU			0.25	25
Senior physician	1			
Fellow	0.76	(0.53 to 1.08)		
Resident/intern	0.84	(0.59 to 1.20)		
Number of calls before ICU admission $\geq$ 2	1.33	(0.88 to 2.01)	0.21	151
Direct admission from the ED to the ICU	0.64	(0.47 to 0.86)	0.004	0

*BMT* bone marrow transplantation, *CLL* chronic lymphocytic leukemia, *CML* chronic myeloid leukemia, *ED* emergency department, *HSCT* hematopoietic stem-cell transplantation, *ICU* intensive care unit, *MDS* myelodysplastic syndrome, *PS* performance status, *SOFA* Sequential Related Organ Failure Assessment