Risk factors of mortality among patients hospitalised with COVID-19 in a critical care or hospital care unit: Analysis of the French national medico-administrative database

SUPPLEMENTS

List of tables

For all the tables below, the reference groups were: 18-45 for age and <30 kg/m² for body mass index (BMI)

Table S1. ICD-10 codes used to specify acute and chronic underlying conditions

Table S2. Factors associated with in-hospital mortality in a cohort of patients hospitalised with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty multivariable initial and final models (n= 98 366)

Table S3. Factors associated with in-hospital mortality in a cohort of patients hospitalised with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Logistic regression multivariable initial and final models (n= 98 366)

Table S4. Factors associated with in-hospital mortality in patients hospitalized with COVID-19 for less than 60 days length of stay to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty initial and final models (n= 96 466)

Table S5. Factors associated with in-hospital mortality in patients hospitalized with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty including age in continuous variable, initial and final models (n= 98 366)

List of figures

Figure 1: Data extraction process

Ouattara E, *et al. BMJ Open Resp Res* 2021; 8:e001002. doi: 10.1136/bmjresp-2021-001002

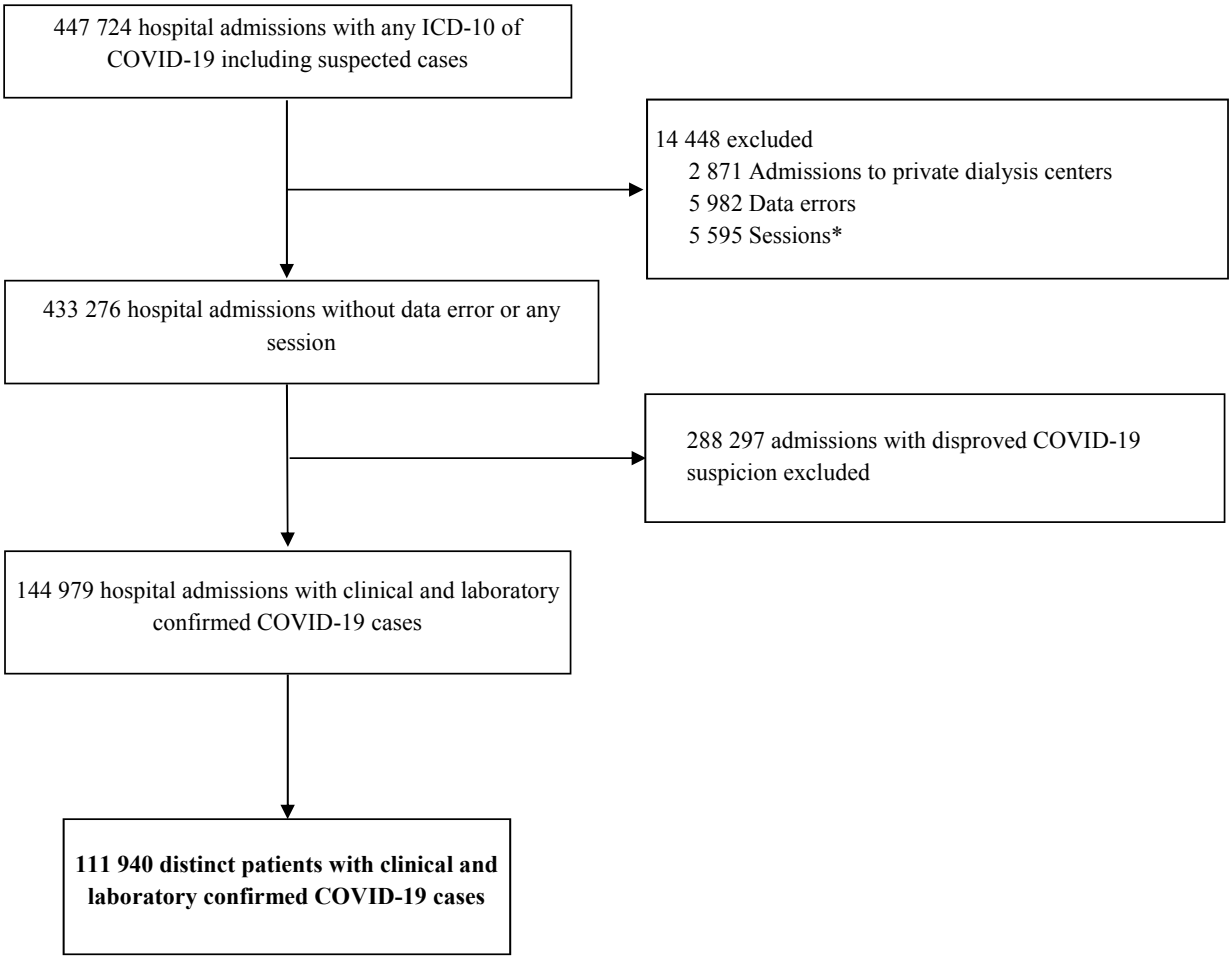

Figure 1: Data extraction process

**Sessions were admissions for repeated treatment procedures such as chemotherapy*

Table S1: ICD-10 codes used to specify acute and chronic underlying conditions

Acute and chronic underlying conditions	ICD-10 code
Chronic underlying conditions	
Asthma	J45, J46
Chronic cardiac disease	I50, I110, I130, I132
Chronic kidney disease [(1)]	N18, I120, I131, I132, Z992
Chronic pulmonary disease	J44, J961, J43, J47, J84
Cirrhosis without transplant [(2)]	K700, K702, K703, K717, K74
Coronary artery disease [(3)]	I20, I21, I22, I23, I24, I25, Z8671, Z955
Dementia	F00, F01, F02, F03, F1073, F1173, F1273, F1373, F1473, F1573, F1673, F1773, F1873, F1973
Diabetes (type 1 and 2)	E10, E11, E12, E13, E14, O24
Dyslipidemia	E780, E781, E782, E783, E784, E785
History of stroke	I69, I60, I61, I62, I63, I64
HIV / AIDS	B20, B21, B22, B23, B24, Z21
Hypertension	I10, I11, I12, I13, I15
Malignant neoplasm	C00-C97, D00-D09
Obesity, Body Mass Index, kg/m² [(4)]	
≥ 30 and < 40	E6604, E6605, E6614, E6615, E6624, E6625, E6684, E6685, E6694, E6695
≥ 40	E6606, E6607, E6616, E6617, E6626, E6627, E6686, E6687, E6696, E6697
Unspecified	E6609, E6619, E6629, E6689, E6699
Solid organ transplant	Z94, T86
Acute underlying conditions	
Acute kidney injury	N17, R392
Acute liver failure	K720, K711, K712, K761, K762
Acute pulmonary embolism	I26
Acute pulmonary failure	J960, J969
Acute pulmonary infection (excluding viral infections)	J13, J14, J15, J16, J170, J172, J173, J178, J18, J690, J698
Acute respiratory distress syndrome	J80
Myocardial infarction [(3)]	I20, I21, I22, I23, I24
Shocks	R57
Thrombophlebitis	I80

[(1)] Information not retained if renal transplant code (Z940) during the hospital stays or during a previous hospitalization of at most 2 years·

[(2)] Information not retained if liver transplant code (Z944) during the hospital stays or during a previous hospitalization of at most 2 years·

[(3)] If one of the codes for "Coronary artery disease" was present in a previous hospitalisation of at most 2 years or one of I25, Z8671, Z955 was present during the hospital stay then the patient was considered with "Coronary artery disease" and without "Myocardial infarction" · Otherwise if one of I20, I21, I22, I23, I24 was only present during the hospital stay then the patient was considered with "Myocardial infarction" and without "Coronary artery disease"·

[(4)] This information was specified either by a code present in the hospital stay or by a code present in a stay 2 years before otherwise reclassified in "Obesity (BMI> = 30 and <40) ·

Table S2. Factors associated with in-hospital mortality in a cohort of patients hospitalised with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty multivariable initial and final models (n= 98 366)

	Patients admitted to a critical care unit (CCU), (n= 25 765)		Patients admitted to a hospital care unit (HCU), (n= 72 601)	
	Initial model aHR (CI95%)	Final model aHR (CI95%)	Initial model aHR (CI95%)	Final model aHR (CI95%)
Age, years				
< 18 *vs* 18 - 45	0·55 (0·31 - 0·99)	0·55 (0·30 - 0·99)	0·23 (0·03 - 1·61)	0·22 (0·03 - 1·60)
46 – 65 *vs* 18 - 45	1·59 (1·35 - 1·88)	1·60 (1·35 - 1·88)	3·29 (2·48 - 4·37)	3·29 (2·48 - 4·37)
66 – 70 *vs* 18 - 45	2·47 (2·10 - 2·91)	2·47 (2·10 - 2·91)	6·79 (5·16 - 8·95)	6·80 (5·16 - 8·95)
71 – 84 *vs* 18 – 45	4·08 (3·47 - 4·80)	4·09 (3·48 - 4·81)	12·50 (9·54 - 16·38)	12·49 (9·54 - 16·37)
≥ 85 *vs* 18 - 45	8·09 (6·80 - 9·63)	8·17 (6·86 - 9·72)	18·23 (13·91 - 23·89)	18·21 (13·90 - 23·86)
Gender, Male	1·03 (0·98 - 1·09)*	1·03 (0·98 - 1·09)*	1·28 (1·23 - 1·33)	1·28 (1·23 - 1·33)
Body Mass Index, kg/m²				
30 – 39 *vs* < 30	0·72 (0·66 - 0·78)	0·71 (0·66 - 0·77)	0·66 (0·60 - 0·73)	0·66 (0·60 - 0·73)
≥40 *vs* < 30	1·16 (1·01 - 1·33)	1·15 (1·01 - 1·32)	1·07 (0·90 - 1·26)	1·07 (0·91 - 1·26)
Hypertension	0·81 (0·77 - 0·86)	0·81 (0·76 - 0·85)	0·85 (0·81 - 0·88)	0·84 (0·81 - 0·88)
Chronic cardiac disease	1·05 (0·98 - 1·12)*	1·06 (0·99 - 1·13)*	1·03 (0·99 - 1·07)*	1·03 (0·99 - 1·08)*
Coronary artery disease	1·11 (1·04 - 1·19)	1·10 (1·03 - 1·17)	1·01 (0·96 - 1·06)*	--
Diabetes (type 1 and 2)	1·11 (1·05 - 1·17)	1·11 (1·05 - 1·17)	1·02 (0·98 - 1·06)*	--
Chronic kidney disease	1·04 (0·97 - 1·12)*	--	1·07 (1·02 - 1·12)	1·07 (1·03 - 1·12)
Asthma	0·95 (0·83 - 1·08)*	--	0·76 (0·68 - 0·85)	0·76 (0·68 - 0·85)
Chronic pulmonary disease	1·08 (1·00 - 1·17)	1·08 (1·00 - 1·16)*	1·01 (0·96 - 1·06)*	--
Malignant neoplasm	1·34 (1·25 - 1·43)	1·34 (1·25 - 1·43)	1·41 (1·35 - 1·47)	1·41 (1·35 - 1·47)
Dementia	1·30 (1·16 - 1·45)	1·30 (1·16 - 1·46)	1·07 (1·03 - 1·12)	1·07 (1·03 - 1·12)
Solid organ transplant	1·13 (0·96 - 1·33)*	1·14 (0·98 - 1·34)*	1·11 (0·90 - 1·36)*	--
Dyslipidaemia	0·94 (0·87 - 1·01)*	--	0·95 (0·90 - 1·00)	--
Cirrhosis without transplant	1·41 (1·21 - 1·64)	1·41 (1·21 - 1·64)	1·27 (1·11 - 1·44)	1·27 (1·12 - 1·45)
History of stroke	1·13 (1·03 - 1·24)	1·13 (1·03 - 1·24)	1·11 (1·05 - 1·18)	1·11 (1·05 - 1·17)
Acute pulmonary failure	1·21 (1·15 - 1·28)	1·21 (1·15 - 1·28)	3·16 (3·05 - 3·28)	3·16 (3·05 - 3·28)
Acute respiratory distress syndrome	1·60 (1·50 - 1·70)	1·60 (1·50 - 1·70)	3·96 (3·74 - 4·19)	3·95 (3·73 - 4·18)
Acute pulmonary infection	0·54 (0·51 - 0·57)	0·54 (0·50 - 0·57)	0·81 (0·76 - 0·85)	0·81 (0·76 - 0·85)
Shock	1·64 (1·54 - 1·74)	1·64 (1·54 - 1·74)	2·92 (2·63 - 3·23)	2·91 (2·63 - 3·23)
Myocardial infarction	1·16 (0·96 - 1·39)*	--	1·06 (0·85 - 1·33)*	--
Acute pulmonary embolism	0·99 (0·91 - 1·08)*	--	0·67 (0·60 - 0·76)	0·67 (0·60 - 0·76)
Thrombophlebitis	0·46 (0·40 - 0·52)	0·46 (0·40 - 0·52)	0·43 (0·35 - 0·52)	0·43 (0·35 - 0·52)
Acute liver failure	1·55 (1·37 - 1·75)	1·54 (1·37 - 1·74)	1·10 (0·88 - 1·39)*	1·10 (0·87 - 1·38)*
Acute kidney injury	1·33 (1·26 - 1·41)	1·34 (1·26 - 1·42)	0·98 (0·93 - 1·03)	0·98 (0·93 - 1·03)

aHR: adjusted hazard ratio, CI: Confidence interval

* p-value > 0·05

Table S3. Factors associated with in-hospital mortality in a cohort of patients hospitalised with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Logistic regression multivariable initial and final models (n= 98 366)

	Patients admitted to a critical care unit (CCU), (n= 25 765)		Patients admitted to a hospital care unit (HCU), (n= 72 601)	
	Initial model aOR (CI95%)	Final model aOR (CI95%)	Initial model aOR (CI95%)	Final model aOR (CI95%)
Age, years				
< 18 *vs* 18 - 45	0.45 (0.24 - 0.83)	0.44 (0.24 - 0.82)	0.20 (0.03 - 1.44)	0.20 (0.03 - 1.44)
46 – 65 *vs* 18 - 45	1.79 (1.49 - 2.15)	1.79 (1.49 - 2.16)	3.85 (2.89 - 5.14)	3.85 (2.89 - 5.14)
66 – 70 *vs* 18 - 45	3.34 (2.78 - 4.01)	3.36 (2.79 - 4.03)	9.31 (7.02 - 12.33)	9.31 (7.03 - 12.34)
71 – 84 *vs* 18 – 45	7.16 (5.97 - 8.59)	7.20 (6.00 - 8.63)	22.85 (17.35 - 30.10)	22.84 (17.35 - 30.08)
≥ 85 *vs* 18 - 45	15.61 (12.75 - 19.09)	15.76 (12.88 - 19.27)	43.40 (32.93 - 57.19)	43.36 (32.91 - 57.13)
Gender, Male	1.07 (0.99 - 1.15)	1.07 (1.00 - 1.15)	1.41 (1.34 - 1.48)	1.41 (1.34 - 1.48)
Body Mass Index, kg/m²				
30 – 39 *vs* < 30	0.64 (0.57 - 0.71)	0.63 (0.57 - 0.70)	0.61 (0.54 - 0.68)	0.61 (0.54 - 0.68)
≥40 *vs* < 30	1.22 (1.02 - 1.46)	1.21 (1.02 - 1.45)	1.11 (0.90 - 1.37)	1.10 (0.90 - 1.36)
Hypertension	0.78 (0.72 - 0.84)	0.77 (0.71 - 0.83)	0.82 (0.78 - 0.86)	0.82 (0.78 - 0.86)
Chronic cardiac disease	1.18 (1.08 - 1.29)	1.18 (1.08 - 1.29)	1.16 (1.09 - 1.23)	1.16 (1.10 - 1.23)
Coronary artery disease	1.13 (1.03 - 1.24)	1.11 (1.02 - 1.22)	1.03 (0.97 - 1.10)	--
Diabetes (type 1 and 2)	1.15 (1.06 - 1.24)	1.14 (1.06 - 1.23)	1.08 (1.02 - 1.14)	1.08 (1.02 - 1.14)
Chronic kidney disease	1.12 (1.02 - 1.24)	1.12 (1.02 - 1.23)	1.24 (1.16 - 1.32)	1.25 (1.17 - 1.32)
Asthma	0.90 (0.76 - 1.06)	--	0.68 (0.59 - 0.78)	0.68 (0.59 - 0.78)
Chronic pulmonary disease	1.21 (1.10 - 1.34)	1.21 (1.09 - 1.33)	1.07 (1.00 - 1.15)	1.08 (1.00 - 1.16)
Malignant neoplasm	1.97 (1.80 - 2.17)	1.97 (1.79 - 2.16)	2.32 (2.19 - 2.46)	2.33 (2.19 - 2.47)
Dementia	1.40 (1.20 - 1.63)	1.40 (1.20 - 1.63)	1.30 (1.23 - 1.38)	1.30 (1.23 - 1.38)
Solid organ transplant	1.48 (1.19 - 1.85)	1.49 (1.19 - 1.85)	1.19 (0.91 - 1.54)	--
Dyslipidaemia	0.94 (0.85 - 1.03)	--	0.90 (0.84 - 0.97)	0.91 (0.84 - 0.98)
Cirrhosis without transplant	2.14 (1.72 - 2.67)	2.14 (1.72 - 2.66)	1.71 (1.44 - 2.04)	1.72 (1.44 - 2.04)
History of stroke	1.47 (1.30 - 1.66)	1.47 (1.29 - 1.66)	1.39 (1.29 - 1.51)	1.39 (1.29 - 1.51)
Acute pulmonary failure	1.57 (1.46 - 1.69)	1.57 (1.46 - 1.68)	6.04 (5.75 - 6.35)	6.04 (5.75 - 6.34)
Acute respiratory distress syndrome	2.87 (2.65 - 3.11)	2.87 (2.65 - 3.11)	16.59 (14.76 - 18.66)	16.59 (14.76 - 18.65)
Acute pulmonary infection	0.73 (0.67 - 0.79)	0.73 (0.67 - 0.78)	1.00 (0.93 - 1.07)	--
Shock	2.80 (2.58 - 3.04)	2.81 (2.58 - 3.05)	10.90 (8.68 - 13.69)	10.94 (8.71 - 13.73)
Myocardial infarction	1.24 (0.95 - 1.61)	--	1.15 (0.83 - 1.59)	--
Acute pulmonary embolism	1.18 (1.05 - 1.33)	1.18 (1.05 - 1.33)	0.84 (0.72 - 0.97)	0.83 (0.72 - 0.97)
Thrombophlebitis	0.46 (0.39 - 0.54)	0.46 (0.39 - 0.54)	0.49 (0.39 - 0.62)	0.49 (0.39 - 0.62)
Acute liver failure	2.18 (1.79 - 2.65)	2.18 (1.79 - 2.65)	1.83 (1.31 - 2.56)	1.83 (1.31 - 2.56)
Acute kidney injury	1.91 (1.77 - 2.06)	1.91 (1.77 - 2.07)	1.24 (1.16 - 1.33)	1.24 (1.16 - 1.33)

aOR: adjusted odd ratio, CI: Confidence interval

Table S4. Factors associated with in-hospital mortality in patients hospitalized with COVID-19 for less than 60 days length of stay to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty initial and final models (n= 96 466)

	Patients admitted to a critical care unit (CCU), (n= 24 267)		Patients admitted to a hospital care unit (HCU), (n= 72 199)	
	Initial model aHR (CI95%)	Final model aHR (CI95%)	Initial model aHR (CI95%)	Final model aHR (CI95%)
Age, years				
< 18 *vs* 18 - 45	0.52 (0.28 - 0.96)	0.52 (0.28 - 0.96)	0.27 (0.04 - 1.91)	0.27 (0.04 - 1.90)
46 – 65 *vs* 18 - 45	1.57 (1.32 - 1.86)	1.57 (1.33 - 1.87)	3.56 (2.65 - 4.79)	3.57 (2.65 - 4.79)
66 – 70 *vs* 18 - 45	2.52 (2.13 - 2.98)	2.53 (2.14 - 2.99)	7.39 (5.54 - 9.86)	7.40 (5.55 - 9.87)
71 – 84 *vs* 18 – 45	4.13 (3.49 - 4.87)	4.16 (3.52 - 4.91)	13.64 (10.28 - 18.11)	13.66 (10.29 - 18.13)
≥ 85 *vs* 18 - 45	8.00 (6.69 - 9.56)	8.12 (6.79 - 9.70)	19.66 (14.81 - 26.11)	19.67 (14.81 - 26.11)
Gender, Male	1.05 (0.99 - 1.11)	1.05 (0.99 - 1.11)	1.29 (1.24 - 1.34)	1.29 (1.24 - 1.34)
Body Mass Index, kg/m²				
30 – 39 *vs* < 30	0.71 (0.65 - 0.77)	0.71 (0.65 - 0.77)	0.66 (0.60 - 0.73)	0.66 (0.60 - 0.73)
≥40 *vs* < 30	1.23 (1.07 - 1.41)	1.22 (1.06 - 1.40)	1.06 (0.90 - 1.25)	1.06 (0.90 - 1.25)
Hypertension	0.78 (0.74 - 0.83)	0.78 (0.74 - 0.83)	0.84 (0.81 - 0.88)	0.84 (0.81 - 0.87)
Chronic cardiac disease	1.07 (1.00 - 1.14)	1.08 (1.01 - 1.16)	1.02 (0.98 - 1.07)	1.03 (0.98 - 1.07)
Coronary artery disease	1.14 (1.06 - 1.22)	1.13 (1.05 - 1.20)	1.02 (0.97 - 1.07)	--
Diabetes (type 1 and 2)	1.12 (1.05 - 1.18)	1.12 (1.06 - 1.19)	1.02 (0.98 - 1.07)	--
Chronic kidney disease	1.08 (1.00 - 1.16)	--	1.09 (1.04 - 1.14)	1.09 (1.04 - 1.14)
Asthma	0.91 (0.80 - 1.04)	--	0.77 (0.69 - 0.86)	0.77 (0.68 - 0.86)
Chronic pulmonary disease	1.12 (1.04 - 1.21)	1.12 (1.04 - 1.21)	1.00 (0.95 - 1.05)	--
Malignant neoplasm	1.38 (1.29 - 1.47)	1.38 (1.29 - 1.48)	1.42 (1.36 - 1.49)	1.42 (1.36 - 1.49)
Dementia	1.28 (1.14 - 1.44)	1.29 (1.15 - 1.44)	1.08 (1.04 - 1.13)	1.08 (1.04 - 1.13)
Solid organ transplant	1.26 (1.07 - 1.48)	1.29 (1.09 - 1.51)	1.10 (0.89 - 1.36)	--
Dyslipidaemia	0.94 (0.88 - 1.01)	--	0.95 (0.90 - 1.01)	--
Cirrhosis without transplant	1.44 (1.24 - 1.68)	1.44 (1.23 - 1.68)	1.26 (1.11 - 1.44)	1.27 (1.11 - 1.44)
History of stroke	1.15 (1.05 - 1.27)	1.15 (1.05 - 1.27)	1.13 (1.07 - 1.20)	1.13 (1.07 - 1.20)
Acute pulmonary failure	1.23 (1.16 - 1.30)	1.22 (1.16 - 1.29)	3.16 (3.05 - 3.28)	3.16 (3.05 - 3.28)
Acute respiratory distress syndrome	1.67 (1.57 - 1.78)	1.66 (1.56 - 1.77)	3.95 (3.73 - 4.18)	3.94 (3.73 - 4.18)
Acute pulmonary infection	0.62 (0.58 - 0.66)	0.62 (0.58 - 0.66)	0.82 (0.78 - 0.86)	0.82 (0.77 - 0.86)
Shock	1.81 (1.70 - 1.92)	1.81 (1.71 - 1.93)	2.98 (2.68 - 3.30)	2.97 (2.68 - 3.30)
Myocardial infarction	1.18 (0.97 - 1.43)	--	1.06 (0.84 - 1.33)	--
Acute pulmonary embolism	1.04 (0.95 - 1.13)	--	0.69 (0.61 - 0.77)	0.68 (0.61 - 0.77)
Thrombophlebitis	0.45 (0.39 - 0.52)	0.45 (0.39 - 0.52)	0.41 (0.33 - 0.50)	0.41 (0.33 - 0.50)
Acute liver failure	1.63 (1.44 - 1.85)	1.63 (1.43 - 1.84)	1.07 (0.84 - 1.35)	1.06 (0.84 - 1.34)
Acute kidney injury	1.35 (1.28 - 1.43)	1.37 (1.29 - 1.45)	0.99 (0.94 - 1.04)	0.99 (0.94 - 1.04)

aHR: adjusted hazard ratio, CI: Confidence interval

Table S5. Factors associated with in-hospital mortality in patients hospitalized with COVID-19 admitted to critical care unit (CCU) or hospital a care unit (HCU): Multivariable Cox frailty including age in continuous variable, initial and final models (n= 98 366)

	Patients admitted to a critical care unit (CCU), (n= 25 765)		Patients admitted to a hospital care unit (HCU), (n= 72 601)	
	Initial model aHR (CI95%)	Final model aHR (CI95%)	Initial model aHR (CI95%)	Final model aHR (CI95%)
Age, years (*Increase for 1year*)	1.05 (1.05 - 1.05)	1.05 (1.05 - 1.05)	1.05 (1.04 - 1.05)	1.05 (1.04 - 1.05)
Gender, Male	1.04 (0.98 - 1.10)	1.04 (0.98 - 1.10)	1.32 (1.27 - 1.37)	1.33 (1.28 - 1.38)
Body Mass Index, kg/m²				
30 – 39 *vs* < 30	0.74 (0.68 - 0.80)	0.73 (0.67 - 0.80)	0.69 (0.62 - 0.76)	0.69 (0.63 - 0.76)
≥40 *vs* < 30	1.22 (1.06 - 1.39)	1.21 (1.06 - 1.38)	1.14 (0.96 - 1.34)	1.16 (0.98 - 1.37)
Hypertension	0.79 (0.75 - 0.84)	0.79 (0.74 - 0.83)	0.84 (0.81 - 0.88)	0.85 (0.82 - 0.89)
Chronic cardiac disease	1.04 (0.97 - 1.11)	1.05 (0.98 - 1.11)	0.99 (0.95 - 1.03)	1.00 (0.96 - 1.04)
Coronary artery disease	1.10 (1.03 - 1.17)	1.08 (1.01 - 1.16)	1.01 (0.97 - 1.06)	--
Diabetes (type 1 and 2)	1.11 (1.04 - 1.17)	1.10 (1.04 - 1.17)	1.07 (1.03 - 1.12)	--
Chronic kidney disease	1.04 (0.97 - 1.11)	--	1.04 (0.99 - 1.09)	1.05 (1.01 - 1.10)
Asthma	0.97 (0.85 - 1.11)	--	0.76 (0.68 - 0.85)	0.77 (0.68 - 0.86)
Chronic pulmonary disease	1.06 (0.98 - 1.14)	1.06 (0.98 - 1.14)	1.04 (0.99 - 1.10)	--
Malignant neoplasm	1.33 (1.24 - 1.42)	1.33 (1.24 - 1.42)	1.45 (1.39 - 1.51)	1.45 (1.38 - 1.51)
Dementia	1.26 (1.12 - 1.41)	1.26 (1.12 - 1.41)	1.06 (1.01 - 1.10)	1.05 (1.01 - 1.10)
Solid organ transplant	1.18 (1.00 - 1.38)	1.19 (1.01 - 1.39)	1.13 (0.92 - 1.40)	--
Dyslipidaemia	0.93 (0.87 - 1.00)	--	0.98 (0.92 - 1.03)	--
Cirrhosis without transplant	1.43 (1.23 - 1.66)	1.43 (1.23 - 1.66)	1.33 (1.17 - 1.51)	1.35 (1.19 - 1.53)
History of stroke	1.12 (1.02 - 1.22)	1.11 (1.02 - 1.22)	1.12 (1.05 - 1.18)	1.12 (1.06 - 1.19)
Acute pulmonary failure	1.21 (1.14 - 1.28)	1.20 (1.14 - 1.27)	3.18 (3.06 - 3.29)	3.18 (3.07 - 3.30)
Acute respiratory distress syndrome	1.60 (1.50 - 1.70)	1.60 (1.50 - 1.70)	3.90 (3.69 - 4.13)	3.90 (3.68 - 4.13)
Acute pulmonary infection	0.54 (0.51 - 0.57)	0.54 (0.51 - 0.57)	0.80 (0.76 - 0.84)	0.80 (0.76 - 0.84)
Shock	1.64 (1.54 - 1.74)	1.64 (1.54 - 1.74)	2.92 (2.64 - 3.24)	2.92 (2.63 - 3.23)
Myocardial infarction	1.15 (0.95 - 1.38)	--	1.05 (0.84 - 1.32)	--
Acute pulmonary embolism	0.99 (0.91 - 1.08)	--	0.68 (0.60 - 0.77)	0.68 (0.60 - 0.76)
Thrombophlebitis	0.46 (0.40 - 0.53)	0.46 (0.40 - 0.53)	0.44 (0.36 - 0.53)	0.44 (0.36 - 0.53)
Acute liver failure	1.57 (1.39 - 1.77)	1.56 (1.38 - 1.76)	1.08 (0.85 - 1.36)	1.07 (0.85 - 1.35)
Acute kidney injury	1.32 (1.25 - 1.40)	1.33 (1.25 - 1.40)	0.97 (0.92 - 1.02)	0.97 (0.92 - 1.02)

aHR: adjusted hazard ratio, CI: Confidence interval