

Table S1. The ICD-10 codes used to identify specific comorbidities

	Charlson comorbidity index ICD-10 codes	Elixhauser comorbidity index ICD-10 codes
Arterial hypertension		Hypertension, uncomplicated: I10.x Hypertension, complicated: I11.x - I13.x, I15.x
Heart disease	Myocardial infarction: I21.x, I22.x, I25.2 Congestive heart failure: I09.9, I11.0, I13.0, I13.2, I25.5, I42.0, I42.5 - I42.9, I43.x, I50.x, P29.0	Congestive heart failure: I09.9, I11.0, I13.0, I13.2, I25.5, I42.0, I42.5 - I42.9, I43.x, I50.x, P29.0 Cardiac arrhythmias: I44.1 - I44.3, I45.6, I45.9, I47.x - I49.x, R00.0, R00.1, R00.8, T82.1, Z45.0, Z95.0 Valvular disease: A52.0, I05.x - I08.x, I09.1, I09.8, I34.x - I39.x, Q23.0 - Q23.3, Z95.2 - Z95.4
Chronic pulmonary disease	Chronic pulmonary disease: I27.8, I27.9, J40.x - J47.x, J60.x - J67.x, J68.4, J70.1, J70.3	Chronic pulmonary disease: I27.8, I27.9, J40.x - J47.x, J60.x - J67.x, J68.4, J70.1, J70.3
Renal disease	Renal disease: I12.0, I13.1, N03.2 - N03.7, N05.2 - N05.7, N18.x, N19.x, N25.0, Z49.0 - Z49.2, Z94.0, Z99.2	Renal failure: I12.0, I13.1, N18.x, N19.x, N25.0, Z49.0 - Z49.2, Z94.0, Z99.2
Liver disease	Mild liver disease: B18.x, K70.0 - K70.3, K70.9, K71.3 - K71.5, K71.7, K73.x, K74.x, K76.0, K76.2 - K76.4, K76.8, K76.9, Z94.4 Moderate or severe liver disease: I85.0, I85.9, I86.4, I98.2, K70.4, K71.1, K72.1, K72.9, K76.5, K76.6, K76.7	Liver disease: B18.x, I85.x, I86.4, I98.2, K70.x, K71.1, K71.3 - K71.5, K71.7, K72.x - K74.x, K76.0, K76.2 - K76.9, Z94.4
Diabetes mellitus	Diabetes without chronic complication: E10.0, E10.1, E10.6, E10.8, E10.9, E11.0, E11.1, E11.6, E11.8, E11.9, E12.0, E12.1, E12.6, E12.8, E12.9, E13.0, E13.1, E13.6, E13.8, E13.9, E14.0, E14.1, E14.6, E14.8, E14.9 Diabetes with chronic complication: E10.2 - E10.5, E10.7, E11.2 - E11.5, E11.7, E12.2 - E12.5, E12.7, E13.2 - E13.5, E13.7, E14.2 - E14.5, E14.7	Diabetes, uncomplicated: E10.0, E10.1, E10.9, E11.0, E11.1, E11.9, E12.0, E12.1, E12.9, E13.0, E13.1, E13.9, E14.0, E14.1, E14.9 Diabetes, complicated: E10.2 - E10.8, E11.2 - E11.8, E12.2 - E12.8, E13.2 - E13.8, E14.2 - E14.8
Obesity		Obesity: E66.x
Peripheral vascular disease	Peripheral vascular disease: I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9	Peripheral vascular disorders: I70.x, I71.x, I73.1, I73.8, I73.9, I77.1, I79.0, I79.2, K55.1, K55.8, K55.9, Z95.8, Z95.9
Cerebrovascular disease	Cerebrovascular disease: G45.x, G46.x, H34.0, I60.x - I69.x	
Rheumatic disease	Rheumatic disease: M05.x, M06.x, M31.5, M32.x - M34.x, M35.1, M35.3, M36.0	Rheumatoid arthritis/collagen vascular diseases: L94.0, L94.1, L94.3, M05.x, M06.x, M08.x, M12.0, M12.3, M30.x, M31.0 - M31.3, M32.x - M35.x, M45.x, M46.1, M46.8, M46.9

Table S2. Association of comorbidities of Charlson Comorbidity Index and hospital mortality in acute pancreatitis.

	Total	Survivors	Non-survivors	P value	OR (95% CI)
Myocardial infarction, N (%)	3,095 (2.8)	2,920 (2.8)	175 (4.2)	<0.001	1.55 (1.32-1.81)
Congestive heart failure, N (%)	4,648 (4.2)	4,043 (3.8)	605 (14.5)	<0.001	4.29 (3.92-4.71)
Peripheral vascular disease, N (%)	3,361 (3.1)	3,091 (2.9)	270 (6.5)	<0.001	2.31 (2.03-2.63)
Cerebrovascular disease, N (%)	2,220 (2)	2,023 (1.9)	197 (4.7)	<0.001	2.56 (2.2-2.97)
Dementia, N (%)	2,609 (2.4)	2,320 (2.2)	289 (7)	<0.001	3.34 (2.94-3.79)
Chronic pulmonary disease, N (%)	9,234 (8.4)	8,739 (8.3)	495 (11.9)	<0.001	1.5 (1.37-1.66)
Rheumatic disease, N (%)	1,335 (1.2)	1,261 (1.2)	74 (1.8)	0.001	1.51 (1.19-1.91)
Peptic ulcer disease, N (%)	801 (0.7)	749 (0.7)	52 (1.3)	<0.001	1.78 (1.34-2.36)
Mild liver disease, N (%)	16,916 (15.4)	16,543 (15.6)	373 (9)	<0.001	0.53 (0.48-0.58)
Moderate or severe liver disease, N (%)	1,498 (1.4)	1,375 (1.3)	123 (3)	<0.001	2.32 (1.92-2.79)
Diabetes without chronic complication, N (%)	18,921 (17.2)	18,069 (17.1)	852 (20.5)	<0.001	1.25 (1.16-1.36)
Diabetes with chronic complication, N (%)	15,539 (1.4)	1,428 (1.3)	111 (2.7)	<0.001	2.01 (1.65-2.44)
Hemiplegia or paraplegia, N (%)	202 (0.2)	184 (0.2)	18 (0.4)	<0.001	2.5 (1.54-4.06)
Renal disease, N (%)	8,191 (7.4)	7,398 (7)	793 (19.1)	<0.001	3.14 (2.89-3.41)
Any malignancy, N (%)	3,957 (3.6)	3,597 (3.4)	360 (8.7)	<0.001	2.69 (2.41-3.02)
Metastatic solid tumor, N (%)	1,193 (1.1)	1,033 (1)	160 (3.9)	<0.001	4.07 (3.43-4.82)
AIDS/HIV, N (%)	327 (0.3)	318 (0.3)	9 (0.2)	0.331	0.72 (0.37-1.39)

OR: odds ratio, CI: confidence interval.

Table S3. Association of comorbidities of Elixhauser Comorbidity Index and hospital mortality in acute pancreatitis.

	Total	Survivors	Non-survivors	P value	OR (95% CI)
Congestive heart failure, N (%)	4,648 (4.2)	4,043 (3.8)	605 (14.6)	<0.001	4.29 (3.92-4.71)
Cardiac arrhythmias, N (%)	12,043 (10.9)	11,054 (10.4)	989 (23.8)	<0.001	2.68 (2.49-2.89)
Valvular disease, N (%)	4,231 (3.8)	3,919 (3.7)	312 (7.5)	<0.001	2.11 (1.88-2.38)
Pulmonary circulation disorders, N (%)	1,145 (1)	1,018 (1)	127 (3.1)	<0.001	3.25 (2.69-3.92)
Peripheral vascular disease, N (%)	3,361 (3.1)	3,091 (2.9)	270 (6.5)	<0.001	2.32 (2.03-2.63)
Hypertension, N (%)	51,532 (46.8)	49,011 (46.3)	2,521 (60.7)	<0.001	1.79 (1.68-1.91)
Paralysis, N (%)	198 (0.2)	180 (0.2)	18 (0.4)	<0.001	2.56 (1.57-4.15)
Other neurological disorders, N (%)	3,415 (3.1)	3,140 (3)	275 (6.6)	<0.001	2.32 (2.04-2.64)
Chronic pulmonary disease, N (%)	9,234 (8.4)	8,739 (8.3)	495 (11.9)	<0.001	1.5 (1.37-1.66)
Diabetes, uncomplicated, N (%)	17,531 (15.9)	16,756 (15.8)	775 (18.7)	<0.001	1.22 (1.13-1.32)
Diabetes, complicated, N (%)	2,813 (2.6)	2,636 (2.5)	177 (4.3)	<0.001	1.74 (1.49-2.04)
Hypothyroidism, N (%)	7,014 (6.4)	6,766 (6.4)	248 (6)	0.279	0.92 (0.82-1.06)
Renal failure, N (%)	8,171 (7.4)	7,380 (7)	791 (19)	<0.001	3.14 (2.89-3.41)
Liver disease, N (%)	17,573 (16)	17,041 (16.1)	532 (12.8)	<0.001	0.77 (0.69-0.84)
Peptic ulcer disease, excluding bleeding, N (%)	599 (0.5)	574 (0.5)	25 (0.6)	0.608	1.11 (0.74-1.66)
AIDS/HIV, N (%)	327 (0.3)	318 (0.3)	9 (0.2)	0.331	0.72 (0.37-1.39)
Lymphoma, N (%)	391 (0.4)	360 (0.3)	31 (0.7)	<0.001	2.2 (1.53-3.19)
Metastatic cancer, N (%)	1,193 (1.1)	1,033 (1)	160 (3.9)	<0.001	4.07 (3.43-4.82)
Solid tumour without metastasis, N (%)	3,214 (3.3)	2,915 (2.8)	299 (7.2)	<0.001	2.74 (2.42-3.1)
Rheumatoid arthritis/collagen vascular diseases, N (%)	1,783 (1.6)	1,699 (1.6)	84 (2)	0.036	1.26 (1.01-1.57)
Coagulopathy, N (%)	1,971 (1.8)	1,672 (1.6)	299 (7.2)	<0.001	4.84 (4.26-5.49)
Obesity, N (%)	9,681 (8.8)	9,327 (8.8)	354 (8.5)	0.523	0.97 (0.86-1.08)
Weight loss, N (%)	2,286 (2.1)	2,086 (2)	200 (4.8)	<0.001	2.52 (2.17-2.92)
Fluid and electrolyte disorders, N (%)	3,885 (3.5)	3,125 (2.9)	760 (18.3)	<0.001	7.36 (6.75-8.03)
Blood loss anaemia, N (%)	305 (0.3)	283 (0.3)	22 (0.5)	0.002	1.99 (1.29-3.07)
Deficiency anaemia, N (%)	3,166 (2.9)	3,025 (2.9)	141 (3.4)	0.042	1.19 (1.01-1.42)
Alcohol abuse, N (%)	17,776 (16.2)	17,417 (16.5)	359 (8.6)	<0.001	0.48 (0.43-0.54)
Drug abuse, N (%)	2,024 (1.8)	1,986 (1.9)	38 (0.9)	<0.001	0.48 (0.35-0.67)
Psychoses, N (%)	495 (0.4)	465 (0.4)	30 (0.7)	0.007	1.65 (1.14-2.39)
Depression, N (%)	5,234 (4.8)	5,047 (4.8)	187 (4.5)	0.432	0.94 (0.81-1.09)

OR: odds ratio, CI: confidence interval.