

**Supplementary Table 1 The International Classification of Diseases, Tenth Revision (ICD-10) codes used in the present study**

<b>Variables</b>	<b>ICD-10 codes</b>
Acute pancreatitis	K8500, K8510, K8520, K8530, K8580, K8590, K8501, K8511, K8521, K8531, K8581, K8591, K8502, K8512, K8522, K8532, K8582, K8592
Cholangitis	K8030, K8032, K8037, K8033, K8034, K8036, K8031, K830
Intubation	5A1945Z, 5A1935Z, 5A1955Z
Nausea	R11, R110, R112
Diarrhea	R197
Septic shock	R652, A419, R6520, 3E030XZ, 3E033XZ, 3E040XZ, 3E043XZ, 3E050XZ, 3E053XZ, 3E060XZ, 3E063XZ
Portal vein thrombosis	I81
Splenic vein thrombosis	I82890
Intensive care unit	5A1955Z, 5A1935Z, 5A1945Z, 03HY03Z, 03HY33Z, 03HY43Z, 04HY03Z, 04HY33Z, 04HY43Z, 4A133B1, 4A13XB1, 4A14XB1
Vasopressor usage	3E030XZ, 3E033XZ, 3E040XZ, 3E043XZ, 3E050XZ, 3E053XZ, 3E060XZ, 3E063XZ
Acute kidney injury	N170, N171, N172, N178, N179
Hemodialysis	Z992, 5A1D00Z, 5A1D60Z, 5A1D90Z, 5A1D80Z, 5A1D70Z
Organ transplant	Z940, Z4822, 0TY00Z0, 0TY00Z1, 0TY00Z2, 0TY10Z0, 0TY10Z1, 0TY10Z2
Liver transplant	Z944, 0FY00Z0, 0FY00Z1, 0FY00Z2
Immunosuppressant usage	Z9225, Z7952
End-stage renal disease	N186

Hypocalcemia	E8351
Pseudocyst development	K863
Acute peripancreatic fluid collections	K863 (only if idx ==1)
Cystogastrostomy	0F9G80Z, 0F9G8ZX, 0F9G8ZZ
Abdominal Pain	R1010, R1030, R108, R1084, R109
Jaundice	R17
Obstruction of bile duct	K831
Tobacco use disorder	F17200
History of smoking	Z87891
Endoscopic retrograde cholangiopancreatography	BF110ZZ, BF111ZZ, BF11YZZ
Endoscopic sphincter and papillotomy	0F9C80Z
Endoscopic retrograde cholangiography	BF100ZZ, BF101ZZ, BF10YZZ
Endoscopic dilation of ampulla and biliary duct	0F758ZZ, 0F768ZZ, 0F778ZZ, 0F788ZZ, 0F798ZZ, 0F7C8DZ, 0F7C8ZZ, 0F958ZZ, 0F968ZZ, 0F978ZZ, 0F988ZZ, 0F998ZZ, 0F9C8ZZ, 0F9D8ZZ
Endoscopic insertion of stent into bile duct	0F758DZ, 0F768DZ, 0F778DZ, 0F788DZ, 0F798DZ, 0FHB4DZ, 0FHB8DZ
Endoscopic removal of stone(s) from biliary tract	0FC58ZZ, 0FC68ZZ, 0FC78ZZ, 0FC88ZZ, 0FC98ZZ, 0FCC8ZZ, 0FF48ZZ, 0FF58ZZ, 0FF68ZZ, 0FF78ZZ, 0FF88ZZ, 0FF98ZZ, 0FFC8ZZ
Endoscopic biopsy of bile duct	0F954ZX, 0F957ZX, 0F958ZX, 0F964ZX, 0F967ZX, 0F968ZX, 0F974ZX, 0F977ZX, 0F978ZX, 0F984ZX, 0F987ZX, 0F988ZX, 0F994ZX, 0F997ZX, 0F998ZX, 0F9C4ZX, 0F9C7ZX, 0F9C8ZX, 0F988ZX, 0FB44ZX,

	0FB48ZX, 0FB54ZX, 0FB57ZX, 0FB58ZX, 0FB64ZX, 0FB67ZX, 0FB68ZX, 0FB74ZX, 0FB77ZX, 0FB78ZX, 0FB84ZX, 0FB87ZX, 0FB88ZX, 0FB94ZX, 0FB97ZX, 0FB98ZX, 0FBC4ZX, 0FBC7ZX, 0FBC8ZX
Biliary endoscopic retrograde cholangiopancreatography	0F7D0DZ, 0F7D3DZ, 0F7D7DZ, 0FHD0DZ, 0FHD3DZ, 0FHD7DZ, 0FUD37Z, 0FUD47Z, 0FUD87Z
Endoscopic insertion of stent into pancreatic duct	0F7D4DZ, 0F7D8DZ, 0FHD4DZ, 0FHD8DZ

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Supplementary Table 2 Predictors of readmission for acute pancreatitis patients with acute peripancreatic fluid collections. Bold parameters indicate predictors that were selected from univariate analysis (left), and became part of final predators after multivariate analysis (right)

Predictors	Univariate analysis				Multivariate analysis			
	Hazard ratio	Lower 95% CI	Upper 95% CI	P value	Adjusted hazard ratio	Lower 95% CI	Upper 95% CI	P value
Age	0.98	0.98	1.1	0.15				
Female <i>vs</i> male gender	<b>1.03</b>	<b>0.98</b>	<b>1.09</b>	0.17	<b>0.93</b>	<b>0.89</b>	<b>0.98</b>	<b>0.01</b>
Elixhauser Comorbidity Index $\geq 3$	<b>1.16</b>	<b>1.007</b>	<b>1.35</b>	0.039	<b>1.55</b>	<b>1.34</b>	<b>1.8</b>	<b>&lt; 0.001</b>
Congestive heart failure	<b>0.83</b>	<b>0.73</b>	<b>0.94</b>	0.006	0.92	0.77	1.09	0.34
Cardiac arrhythmias	<b>0.88</b>	<b>0.81</b>	<b>0.97</b>	0.009	1.02	0.93	1.12	0.58
Valvular disease	<b>0.67</b>	<b>0.5</b>	<b>0.9</b>	0.007	0.82	0.61	1.1	0.19
Pulmonary circulation disorders	1.11	0.87	1.43	0.38				
Peripheral vascular disease	1.002	0.86	1.15	0.97				
Chronic pulmonary diseases	<b>1.09</b>	<b>1.02</b>	<b>1.17</b>	0.011	<b>1.15</b>	<b>1.08</b>	<b>1.22</b>	<b>&lt; 0.001</b>
Hypothyroidism	1.02	0.91	1.14	0.63				
Chronic renal disease (ESRD not included)	<b>0.96</b>	<b>0.85</b>	<b>1.08</b>	0.19	<b>1.17</b>	<b>1.07</b>	<b>1.41</b>	<b>0.01</b>
Chronic liver disease	<b>0.89</b>	<b>0.84</b>	<b>0.95</b>	0.001	0.86	0.81	1.25	0.19
PUD excluding bleeding	1.13	0.92	1.37	0.22				
HIV/AIDS	0.86	0.52	1.41	0.56				
Rheumatoid arthritis/CVD	0.98	0.78	1.23	0.89				

<b>Coagulopathy</b>	<b>0.73</b>	<b>0.65</b>	<b>0.82</b>	< 0.001	0.74	0.66	1.08	0.17
<b>Obesity</b>	<b>0.79</b>	<b>0.72</b>	<b>0.86</b>	< 0.001	0.8	0.73	0.88	0.78
<b>Protein-calorie malnutrition</b>	<b>1.09</b>	<b>1.01</b>	<b>1.16</b>	0.014	<b>1.19</b>	<b>1.12</b>	<b>1.26</b>	<b>&lt; 0.001</b>
<b>Fluid and electrolyte disorder</b>	<b>0.93</b>	<b>0.88</b>	<b>0.98</b>	0.012	0.89	0.85	0.94	< 0.001
<b>Alcohol abuse</b>	<b>1.14</b>	<b>1.08</b>	<b>1.2</b>	< 0.001	<b>1.17</b>	<b>1.11</b>	<b>1.23</b>	<b>&lt; 0.001</b>
<b>Substance abuse</b>	<b>1.23</b>	<b>1.14</b>	<b>1.33</b>	< 0.001	<b>1.11</b>	<b>1.03</b>	<b>1.2</b>	<b>0.005</b>
<b>Psychoses</b>	<b>1.21</b>	<b>0.98</b>	<b>1.5</b>	0.065	1.13	0.91	1.39	0.25
<b>Depression</b>	<b>1.09</b>	<b>1.02</b>	<b>1.17</b>	0.01	<b>1.07</b>	<b>1.001</b>	<b>1.15</b>	<b>0.05</b>
Acute cholangitis	0.99	0.67	1.47	0.99				
<b>Mechanical ventilation</b>	<b>0.48</b>	<b>0.35</b>	<b>.65</b>	< 0.001	0.62	0.41	1.05	0.09
Nausea	0.98	0.8	1.2	0.88				
<b>Diarrhea</b>	<b>0.85</b>	<b>0.72</b>	<b>1.005</b>	0.058	0.89	0.75	1.05	0.18
<b>Septic shock</b>	<b>0.68</b>	<b>0.56</b>	<b>0.82</b>	< 0.001	0.82	0.66	1.011	0.1
<b>Portal vein thrombosis</b>	<b>1.15</b>	<b>1.01</b>	<b>1.3</b>	0.026	<b>1.65</b>	<b>1.47</b>	<b>1.85</b>	<b>&lt; 0.001</b>
<b>Splenic vein thrombosis</b>	<b>1.89</b>	<b>1.59</b>	<b>2.11</b>	< 0.001	<b>1.57</b>	<b>1.34</b>	<b>1.84</b>	<b>&lt; 0.001</b>
<b>ICU level care</b>	<b>0.49</b>	<b>0.34</b>	<b>0.69</b>	< 0.001	0.87	0.54	1.39	0.57
<b>Vasopressor use</b>	<b>0.56</b>	<b>0.3</b>	<b>1.05</b>	0.072	1.29	0.66	2.54	0.44
<b>Acute kidney injury</b>	<b>0.77</b>	<b>0.7</b>	<b>0.85</b>	< 0.001	0.88	0.79	1.12	0.25
Cyst-gastrostomy	1.1	0.92	1.33	0.26				
Abdominal pain	1.04	0.79	1.36	0.77				
Jaundice	0.99	0.62	1.57	0.98				
Obstruction of bile duct	1.08	0.93	1.26	0.27				
<b>Tobacco use disorder</b>	<b>1.07</b>	<b>0.96</b>	<b>1.19</b>	0.17	1.01	0.91	1.12	0.786
<b>History of smoking</b>	<b>0.9</b>	<b>0.83</b>	<b>0.97</b>	0.011	0.98	0.9	1.07	0.76
Biliary ERCP	1.02	0.33	3.19	0.96				
<b>Endoscopic retrograde</b>	<b>0.76</b>	<b>0.57</b>	<b>1.01</b>	0.067	<b>0.66</b>	<b>0.52</b>	<b>0.85</b>	<b>0.001</b>

**cholangiography (no intervention)**

<b>Endoscopic dilation of ampulla and biliary duct</b>	<b>0.66</b>	<b>0.45</b>	<b>0.96</b>	0.032	<b>0.65</b>	<b>0.47</b>	<b>0.9</b>	<b>0.01</b>
Endoscopic insertion of stent (tube) into bile duct	1.08	0.91	1.29	0.34				
<b>Endoscopic removal of stone(s) from biliary tract</b>	<b>0.82</b>	<b>0.62</b>	<b>1.09</b>	0.18	<b>0.69</b>	<b>0.54</b>	<b>0.89</b>	<b>0.005</b>
Endoscopic biopsy of bile duct	0.69	0.33	1.45	0.33				
<b>Endoscopic insertion of stent (tube) into pancreatic duct</b>	<b>0.79</b>	<b>0.66</b>	<b>0.94</b>	0.01	0.76	0.52	1.11	0.16
<b>Endoscopic removal of stone(s) from pancreatic duct</b>	<b>0.62</b>	<b>0.37</b>	<b>1.04</b>	0.071	1.09	0.82	1.46	0.52
Endoscopic dilation of pancreatic duct	1.01	0.5	2.03	0.96				
Endoscopic biopsy of pancreatic duct	0.77	0.34	1.72	0.53				

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PUD: Peptic ulcer disease; HIV: Human immunodeficiency virus; AIDS: Acquired immunodeficiency syndrome; CVD: Collagen vascular disorder