

Table 1. Patient characteristics

	Delirium(n=8680)	No delirium(n=50292)	P-value
Sex (male/female)	2399/6281	11718/38574	<.0001
Age (0/1/2/3/4)	279/835/1766/2447/3353	4426/8962/12711/12414/11779	<.0001
Elix (0/1/2/3)	1845/4020/2490/325	11497/24115/13137/1543	<.0001
Hospital type (1/2/3)	6931/1737/12	31873/17516/903	<.0001
ICU care	2401(27.6)	7651(15.2)	<.0001
Ventilator care	215(2.5)	635(1.3)	<.0001
Congestive heart failure	2785(32.1)	14619(29.1)	<.0001
Cardiac arrhythmias	2259(26.0)	11777(23.4)	<.0001
Valvular heart disease	351(4.0)	1970(3.9)	0.5752
Pulmonary circulation disorders	157(1.8)	740(1.5)	0.7009
Peripheral vascular disorders	4599(52.9)	25954(51.6)	0.0177
Complicated HT	3060(35.3)	16874(33.5)	0.002
Uncomplicated HT	7282(83.9)	41362(82.2)	0.0002
Paralysis	865(9.9)	5214(10.3)	0.2553
Neurodegenerative disorders	2151(24.8)	10361(20.6)	<.0001
Chronic pulmonary disease	6754(77.8)	68746(77.0)	0.115
Diabetes, uncomplicated	4845(55.8)	27416(54.5)	0.0242
Diabetes, complicated	3136(36.1)	18063(35.9)	0.7028
Hypothyroidism	1100(12.7)	6100(12.1)	0.1531
Renal failure	748(8.6)	3808(7.6)	0.0008
Liver disease	5250(60.5)	30691(61.0)	0.3394
Peptic ulcer disease, no bleeding	5453(62.8)	32120(63.8)	0.0616
Lymphoma	34(0.39)	209(0.42)	0.7485
Metastatic cancer	289(3.33)	1744(3.5)	0.5144
Solid tumor without metastasis	1917(22.1)	10833(21.5)	0.2546
Rheumatoid arthritis/collagen vascular disease	3070(35.4)	18303(36.4)	0.0666
Coagulopathy	439(5.1)	2576(5.1)	0.8011
Obesity	18(0.21)	150(0.3)	0.1423
Weight loss	3767(7.5)	700(8.1)	0.0619

Fluid and electrolyte disorders	13262(23.4)	2418(27.9)	0.0038
Blood loss anemia	901(1.8)	155(1.8)	0.9699
Deficiency anemia	14150(28.1)	2556(29.5)	0.0123
Alcohol abuse	461(5.31)	2620(5.21)	0.6948
Drug abuse	2(0.02)	11(0.02)	0.946
Psychosis	35(0.4)	84(0.17)	<.0001
Depression	4098(47.2)	20195(40.1)	<.0001
AIDS/HIV	8(0.09)	47(0.09)	0.971

Hospital type 1, medical center; Hospital type 2, general hospital; Hospital type 3, clinic. Elixhauser 1, Elixhauser < 5; Elixhauser 2, Elixhauser 5–9; Elixhauser 3, Elixhauser ≥ 10. ICU, intensive care unit; HT, hypertension. Values are expressed as absolute number (percentages), or absolute number * $P < 0.05$ between-groups comparison

Table 2. Univariate analysis

	Odds Ratio	95% confidence interval	P- value
Sex	0.794	0.754-0.836	<.0001
Age	4.509	3.971-5.118	<.0001
Elix	1.299	1.142-1.478	<.0001
Hospital type	0.061	0.035-0.108	<.0001
ICU care	2.132	2.022-2.248	<.0001
Ventilator care	1.994	1.706-2.332	<.0001
Congestive heart failure	1.15	1.095-1.208	<.0001
Cardiac arrhythmias	1.148	1.09-1.21	<.0001
Valvular heart disease	1.034	0.921-1.161	0.5756
Pulmonary circulation disorders	0.949	0.801-1.126	0.55
Peripheral vascular disorders	1.055	1.008-1.104	0.0219
Complicated HT	1.121	1.054-1.192	0.0003
Uncomplicated HT	1	9.2451-0.0024	0.0024
Paralysis	0.953	0.883-1.028	0.2133
Neurodegenerative disorders	1.265	1.2-1.335	<.0001
Chronic pulmonary disease	1.041	0.986-1.1	0.1455
Diabetes, uncomplicated	1.052	1.005-1.101	0.0313
Diabetes, complicated	1.007	0.96-1.056	0.7846
Hypothyroidism	1.046	0.977-1.121	0.1943
Renal failure	1.147	1.057-1.245	0.001
Liver disease	0.974	0.929-1.02	0.264
Peptic ulcer disease, no bleeding	0.954	0.91-1	0.0518
AIDS/HIV	0.993	0.469-2.103	0.9861
Lymphoma	0.946	0.658-1.359	0.763
Metastatic cancer	0.96	0.846-1.09	0.5292
Solid tumor without metastasis	1.032	0.977-1.09	0.2652
Rheumatoid arthritis/collagen vascular disease	0.953	0.909-1	0.0478
Coagulopathy	0.982	0.885-1.089	0.73

Obesity	0.696	0.426-1.134	0.1457
Weight loss	1.084	0.996-1.179	0.0607
Fluid and electrolyte disorders	1.072	1.019-1.128	0.0074
Blood loss anemia	0.991	0.834-1.176	0.9143
Deficiency anemia	1.061	1.009-1.115	0.0206
Alcohol abuse	1.016	0.918-1.125	0.7574
Drug abuse	1.062	0.236-4.791	0.9372
Psychosis	2.437	1.642-3.618	<.0001
Depression	1.33	1.27-1.392	<.0001

ICU, intensive care unit; HT, hypertension; DM, diabetes mellitus. * $P < 0.05$ between-groups comparison

Table 3. Stepwise logistic regression

	Odds Ratio	95% confidence interval	P-value
Age	4.723	4.151-5.375	<.0001
Hospital type	0.075	0.042-0.132	<.0001
ICU care	1.519	1.435-1.607	<.0001
Sex	0.669	0.634-0.706	<.0001
Depression	1.385	1.318-1.456	<.0001
Neurodegenerative disorders	1.206	1.139-1.276	<.0001
Psychosis	2.232	1.476-3.375	<.0001
Diabetes, uncomplicated	1.093	1.041-1.148	0.0013
Peptic ulcer disease, no bleeding	0.916	0.871-0.963	0.0006
Ventilator care	1.193	1.013-1.404	0.0343

ICU, intensive care unit. * $P < 0.05$ between-group comparison