

**Supplementary Table 1.** Baseline Characteristics and Outcomes of Patients with and without

## Diabetes

Characteristic	No diabetes (N = 179,842)	Diabetes (N = 23,532)	Before IPW	
			P value	ASD
Male	74262 (41.3)	13632 (57.9)	<0.001	33.7
Age	51.4 ( $\pm$ 15.1)	63.4 ( $\pm$ 11.3)	<0.001	90.1
Body mass index	24.0 ( $\pm$ 3.6)	25.1 ( $\pm$ 3.7)	<0.001	29.2
Psychiatric disorder, any	5696 (3.2)	1261 (5.4)	<0.001	10.9
Mood disorder	2399 (1.3)	537 (2.3)	<0.001	7.1
Schizophrenia	203 (0.1)	26 (0.1)	>0.990	0.1
Alcoholic use disorder	108 (0.1)	36 (0.2)	<0.001	2.8
Other substance abuse	41 (0.0)	6 (0.0)	0.980	0.2
Sleep disorder	2374 (1.3)	488 (2.1)	<0.001	5.8
Personality disorder	56 (0.0)	6 (0.0)	0.790	0.3
Current alcohol	36752 (20.4)	3776 (16.0)	<0.001	11.4
Current smoking	13580 (7.6)	1978 (8.4)	<0.001	3.2
Previous disease				
Hypertension	37400 (20.8)	14194 (60.3)	<0.001	87.9
Chronic kidney disease	1871 (1.0)	1521 (6.5)	<0.001	28.8
Dialysis	604 (0.3)	362 (1.5)	<0.001	12.5
Stroke	3063 (1.7)	1198 (5.1)	<0.001	18.8
Coronary artery disease	2739 (1.5)	1396 (5.9)	<0.001	23.4
Heart failure	384 (0.2)	239 (1.0)	<0.001	10.3
Arrhythmia	2291 (1.3)	695 (3.0)	<0.001	11.7
Peripheral artery disease	349 (0.2)	227 (1.0)	<0.001	10.2
Aortic disease	558 (0.3)	138 (0.6)	<0.001	4.1
Valvular heart disease	260 (0.1)	57 (0.2)	<0.001	2.2
Chronic obstructive pulmonary disease	2922 (1.6)	701 (3.0)	<0.001	9
Preoperative blood laboratory tests				
Hemoglobin, g/dl	13.4 ( $\pm$ 1.8)	13.0 ( $\pm$ 2.0)	<0.001	21.1
Creatinine, mg/dL	0.9 ( $\pm$ 0.7)	1.1 ( $\pm$ 1.3)	<0.001	25.8
Preoperative electrolytes				
Hyponatremia	4898 (2.7)	1743 (7.4)	<0.001	21.5
Hypernatremia	1257 (0.7)	172 (0.7)	0.610	0.4
Hypokalemia	2144 (1.2)	497 (2.1)	<0.001	7.2
Hyperkalemia	916 (0.5)	398 (1.7)	<0.001	11.3
Hypophosphatemia	3836 (2.1)	846 (3.6)	<0.001	8.8
Hyperphosphatemia	4745 (2.6)	984 (4.2)	<0.001	8.5
Hypochloremia	2766 (1.5)	1065 (4.5)	<0.001	17.5
Hyperchloremia	18896 (10.5)	2881 (12.2)	<0.001	5.5
Operative variables				

General anesthesia	156423 (87.0)	19716 (83.8)	<0.001	9.1
Emergency operation	12593 (7.0)	1820 (7.7)	<0.001	2.8
Operation duration, min	130.2 ( $\pm$ 100.0)	143.9 ( $\pm$ 106.1)	<0.001	33.7
Intraoperative transfusion	5700 (3.2)	1245 (5.3)	<0.001	10.6
Intraoperative inotropics infusion	14518 (8.1)	3229 (13.7)	<0.001	18.2
Surgical risk				
Mild	71978 (40.0)	7223 (30.7)	<0.001	19.6
Intermediate	97893 (54.4)	13837 (58.8)	<0.001	8.8
High	9971 (5.5)	2472 (10.5)	<0.001	18.3
Surgery types			<0.001	48.3
Neuroendocrine	12317 (6.8)	754 (3.2)		
Lung	10296 (5.7)	1771 (7.5)		
Head & Neck	28067 (15.6)	2938 (12.5)		
Breast	16820 (9.4)	846 (3.6)		
Stomach	10729 (6.0)	1862 (7.9)		
Hepatobiliary	14388 (8.0)	2808 (11.9)		
Colorectal	11878 (6.6)	2040 (8.7)		
Urology	15597 (8.7)	2993 (12.7)		
Gynecology	23344 (13.0)	1186 (5.0)		
Bone & Skin etc	36406 (20.2)	6334 (26.9)		
Outcomes				
Delirium	2143 (1.2)	722 (3.1)	<0.001	13
One-year mortality	4672 (2.6)	1209 (5.1)	<0.001	13.2
Three-year mortality	9844 (5.5)	2396 (10.2)	<0.001	17.6

Data are presented as n (%) or mean ( $\pm$ standard deviation). Surgical risk was stratified according to 2014 European Society of Cardiology/European Society of Anaesthesiology guidelines. IPW, inverse probability of weighting.