

Supplementary Online Content

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eTable 1. Ten Most Frequent Postoperative *ICD-9* Codes (Matched Cohort N=3530)

eTable 2. Preoperative and Perioperative Characteristics by Impaired Sensorium Status for General, Nonemergent, Inpatient Procedures

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Ten Most Frequent Postoperative ICD-9 Codes (Matched Cohort N=3530)

ICD-9 code	Impaired Sensorium No	Impaired Sensorium Yes	Total (100%)
560.8 Adhesions with obstruction	70 (50%)	71 (50%)	141 (4%)
574.0 Gallstones with acute cholecystitis	48 (50%)	49 (50%)	97 (2.75%)
577.0 Acute pancreatitis	50 (55%)	41 (45%)	91 (2.6%)
560.9 Intestinal obstruction	28 (33%)	57 (67%)	85 (2.4%)
569.8 Intestinal perforation	30 (36%)	53 (64%)	83 (2.35%)
557.0 Vascular insufficiency of the intestine	37 (46%)	44 (54%)	81 (2.3%)
574.1 Gallstones with non- acute cholecystitis	48 (67%)	24 (33%)	72 (2%)
562.1 Colon diverticulitis	37 (60%)	25 (40%)	62 (1.75%)
575.0 Acute cholecystitis	26 (44%)	33 (56%)	59 (1.7%)
153.6 Right colon cancer	36 (69%)	16 (31%)	52 (1.5%)
707.03 Lower back pressure ulcer	24 (49%)	25 (51%)	49 (1.4%)

eTable 2: Preoperative and Perioperative Characteristics by Impaired Sensorium Status for General, Nonemergent, Inpatient Procedures

		Unmatched Cohort (N=294,037)			Matched Sample (N=3,530)		
		No Impaired Sensorium 99.4% (N=292,266)	Impaired Sensorium 0.6% (N=1,771)	Standardized Difference	No Impaired Sensorium 50% (N=1,765)	Impaired Sensorium 50% (N=1,765)	Standardized Difference
Demographic Characteristics							
Gender (Female)		59.6% (174,060)	47.3% (838)	0.247	46.3% (818)	47.4% (837)	0.022
Race	White	72.0% (210,334)	71.5% (1,266)	0.220	73.1% (1,290)	71.4% (1,261)	0.048
	Hispanic	6.1% (17,948)	3.4% (61)		3.7% (65)	3.5% (61)	
	Black	10.5% (30,805)	16.1% (286)		14.8% (262)	16.2% (286)	
	Other	3.2% (9,216)	1.8% (32)		1.5% (27)	1.8% (32)	
	Unknown	8.2% (23,963)	7.1% (126)		6.9% (121)	7.1% (125)	
Age, years (truncated at 90)		57.5 (16.7)	67.3 (15.4)	0.614	68.4 (14.7)	67.3 (15.5)	0.071
Preoperative Conditions							
Diabetes mellitus with oral agents or insulin		14.8% (43,276)	28.6% (507)	0.340	27.4% (484)	28.6% (505)	0.027
Currently on dialysis (pre-op)		1.5% (4,492)	11.3% (201)	0.408	10.1% (178)	11.2% (198)	0.037
Functional health status prior to surgery	Independent	93.4% (272,915)	26.7% (472)	1.877	23.8% (420)	26.7% (471)	0.132
	Partially Dependent	5.0% (14,751)	30.7% (543)		36.9% (652)	30.8% (543)	
	Totally Dependent	1.6% (4,600)	42.7% (756)		39.3% (693)	42.5% (751)	
History of angina in 1 month before surgery		0.6% (1,865)	3.3% (59)	0.194	3.2% (57)	3.2% (57)	0.000
Congestive heart failure in 1 month before surgery		0.9% (2,693)	12.8% (226)	0.482	10.1% (178)	12.6% (222)	0.079
History of severe COPD		5.1% (14,951)	15.1% (267)	0.335	16.1% (284)	15.0% (264)	0.031
History of MI 6 months prior to surgery		0.5% (1,437)	4.8% (85)	0.271	4.0% (71)	4.6% (82)	0.031

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History of revascularization/amputation for peripheral vascular disease	1.5% (4,437)	6.5% (116)	0.258	6.1% (108)	6.5% (115)	0.016
History of transient ischemic attacks (TIA)	2.3% (6,745)	6.3% (111)	0.196	5.6% (99)	6.1% (108)	0.022
Hypertension requiring medication	46.7% (136,372)	68.2% (1,208)	0.447	69.0% (1,217)	68.1% (1,202)	0.018
Previous PCI	5.0% (14,710)	8.2% (146)	0.129	9.3% (165)	8.2% (145)	0.040
Previous cardiac surgery	5.2% (15,137)	12.9% (229)	0.273	11.2% (198)	12.9% (227)	0.051
Prior Operation within 30 days	2.9% (8,415)	21.9% (387)	0.602	20.9% (369)	21.8% (385)	0.022
Rest pain/gangrene	0.2% (505)	1.9% (33)	0.169	1.5% (26)	1.8% (32)	0.027
Open wound/wound infection	4.3% (12,665)	29.9% (529)	0.721	28.6% (505)	29.7% (525)	0.025
>10% loss body weight in last 6 months	4.6% (13,557)	11.2% (198)	0.244	12.2% (215)	11.2% (197)	0.032
Ascites	1.6% (4,588)	15.0% (265)	0.501	14.0% (247)	14.8% (261)	0.023
Bleeding disorders	5.2% (15,089)	21.8% (386)	0.502	19.6% (346)	21.8% (384)	0.053
Chemotherapy for malignancy in <= 30 days pre-op	1.9% (5,645)	3.2% (56)	0.078	3.3% (58)	3.1% (55)	0.010
Current pneumonia	0.7% (2,125)	16.5% (292)	0.586	13.3% (234)	16.3% (288)	0.086
Disseminated cancer	4.1% (11,850)	7.5% (132)	0.146	7.4% (130)	7.4% (130)	0.000
Dyspnea	10.9% (31,829)	29.5% (523)	0.477	28.9% (510)	29.4% (519)	0.011
Radiotherapy for malignancy in last 90 days	1.1% (3,356)	1.3% (23)	0.014	1.5% (26)	1.2% (22)	0.020
Current smoker within one year	19.4% (56,788)	22.7% (402)	0.080	22.2% (391)	22.7% (401)	0.014
Steroid use for chronic condition	4.4% (12,855)	8.9% (157)	0.180	8.4% (148)	8.8% (156)	0.016

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Transfusion >4 units PRBCs in 72 hours before surgery		0.6% (1,689)	6.0% (107)	0.309	5.8% (103)	6.0% (106)	0.007
Tumor involving CNS		0.1% (289)	1.1% (19)	0.128	0.8% (15)	1.0% (18)	0.018
Esophageal varices		0.2% (603)	1.4% (25)	0.135	1.2% (21)	1.4% (24)	0.015
EtOH > 2 drinks/day in 2 wks before admission		2.6% (7,497)	6.8% (120)	0.201	6.5% (115)	6.7% (118)	0.007
Abnormal Preoperative Lab Values							
Albumin	<3.5	30.3% (88,489)	77.1% (1,365)	1.063	78.9% (1,392)	77.0% (1,359)	0.045
Hematocrit	<35 (fem), <40 (male)	37.7% (110,243)	80.8% (1,431)	0.976	82.9% (1,464)	80.7% (1,425)	0.057
BUN	>40	2.2% (6,382)	18.3% (324)	0.551	16.3% (287)	18.1% (320)	0.050
Creatinine	>1.2	14.9% (43,456)	35.4% (627)	0.487	33.9% (598)	35.3% (623)	0.030
Bilirubin	>1.0	22.2% (64,893)	33.6% (595)	0.256	32.1% (566)	33.5% (591)	0.030
Platelet count	<150	7.7% (22,650)	24.2% (429)	0.461	22.5% (397)	24.1% (426)	0.039
SGOT	>40	24.3% (70,892)	32.9% (582)	0.194	31.3% (552)	32.7% (578)	0.032
Sodium	<135 or >145	9.4% (27,562)	27.0% (479)	0.469	26.5% (468)	26.9% (475)	0.009
WBC	>11	16.2% (47,388)	46.0% (815)	0.680	46.9% (828)	45.9% (810)	0.021
Perioperative Characteristics							
Principal anesthesia technique	General	98.6% (288,206)	97.3% (1,724)	0.090	97.1% (1,714)	97.3% (1,718)	0.014
		1.4% (4,060)	2.7% (47)		2.9% (51)	2.7% (47)	
Days from Hospital Admission to Operation		1.4 (7.6)	9.8 (37.2)	0.310	9.5 (54.3)	9.8 (37.2)	0.005

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Total Operation Time	133.6 (97.5)	100.6 (72.2)	0.384	101.2 (73.1)	100.7 (72.3)	0.007
Work Relative Value Unit (RVU)	17.8 (9.0)	17.8 (8.5)	0.003	18.0 (9.0)	17.8 (8.5)	0.015