

Supplemental Table 1: Procedure and diagnosis codes used to create study cohort

Procedures and Diagnoses	ICD-9 code(s)
Cystic fibrosis	277.0, 277.00, 277.01, 277.02, 277.03, 277.09
PROCEDURES	
Gastrostomy/enterostomy	43.1, 43.11, 43.19, 44.32, 46.32, 46.3, 46.39
Cholecystectomy	51.21, 51.22, 51.2, 51.23, 51.24
Small bowel resection	45.6, 45.61, 45.62, 45.63
Partial colectomy	45.7, 45.71, 45.72, 45.73, 45.74, 45.75, 45.76, 45.79, 17.32, 17.33, 17.36, 17.35, 17.34, 17.3, 17.39, 17.31
Total colectomy	45.8, 45.81, 45.82, 45.83
Appendectomy	47.0, 47.1, 47.19, 47.01, 47.11
Proctectomy	48.4, 48.40, 48.41, 48.42, 48.43, 48.49, 48.5, 48.50, 48.51, 48.52, 48.59, 48.6, 48.61, 48.62, 48.63, 48.64, 48.65, 48.69
Stoma creation	46.0, 46.01, 46.1, 46.10, 46.11, 46.13, 46.14, 46.2, 46.20, 46.21, 46.22, 46.23, 46.24
Stoma revision	46.4, 46.40, 46.41, 46.42, 46.43
Stoma closure	46.5, 46.50, 46.51, 46.52
Lysis of adhesions	54.51, 54.5
DIAGNOSES	
Malnutrition	263.9, 263.0, 263.1, 263.8, 263, 262, 261
Cholecystitis	574.1, 574.0, 574.4, 574.3, 575.10, 575.0, 575.11, 575.12, 575.1, 574.6, 574.7, 574.9, 574.8, 574.2, 574.5, 575.8
Bowel obstruction	560, 560.0, 560.2, 560.3, 560.30, 560.39, 560.8, 560.81, 560.9, 560.89
Diverticulitis	562.11, 562.13
Bowel perforation/Sepsis/Peritonitis	569.83, 003.1, 036.2, 038.x, 054.5, 449, 785.52, 790.7, 995.91–995.92, 567.0–567.21, 567.29, 567.89, 567.9
Intestinal fistula	569.81, 596.1, 619.1
Colorectal cancer	153, 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 154, 154.0, 154.1, 154.8

Polyp	211.3, 211.4
Appendicitis	540, 540.0, 540.1, 540.9
Complications (respiratory in bold)	997, 997.3, 997.31, 997.39 , 997.4, 997.5, 998.1, 998.11, 998.12, 998.2, 998.3, 998.30, 998.31, 998.32, 998.33, 998.83, 998.5, 998.51, 998.59, 998.6 995.91, 995.92, 487, 480.09, 481, 482, 481.09, 483.08, 485, 486, 507 , 453.4, 453.41, 453.42, 518.51, 518.52, 518.53, 518.81 , 567.22, 599, 584.59, 410, 958.93, 427.5, 434.91, 567.22