**Supplementary tables**

Supplementary Table 1. Description of the ICD-9-CM codes used to define IBD-related disease location. disease extension. surgery. and other characteristics.

|  |  |
| --- | --- |
| **Characteristic** | **ICD-9-CM code** |
| **Disease location in CD** |  |
| Ileal | 555.0 |
| Colic | 555.1 |
| Ileocolic | 555.2 |
| **Disease extension in UC** |  |
| Proctitis | 556.2 |
| Proctosigmoiditis | 556.3 |
| Left side | 556.5 |
| Pancolitis | 556.6 |
| **IBD-related surgery** |  |
| Require operation | 541.2; 546.1 |
| Colectomy | 45.8; 45.7 |
| Total proctocolectomy | 48.40; 48.41; 48.42; 48.43; 48.5; 48.648.50; 48.51; 48.52; 48.59; 48.61; 48.62; 48.63; 48.64; 48.65; 48.69 |
| Laparoscopic colectomy | 17.31; 17.32; 17.33; 17.34; 17.35; 17.36; 17.39 |
| Ileostomy | 46.2; 46.20; 46.21; 46.22; 46.23; 46.24 |
| Colostomy | 46.1; 46.1x |
| Stoma surgery without temporary ileostomy | 46.1x; 46.2x |
| Stoma surgery | 46.1; 46.2 |
| Rectal perianal surgery | 48.xx |
| Large intestinal resection | 45.7x; 45.8x; 45.92; 45.93; 45.94; 45.95 |
| Incision | 45.0x; 45.33; 45.5x; 45.6x; 45.9; 45.9x |
| **Other** |  |
| Anemia | 280.0; 280.1; 280.9; 285.1; 285.9 |
| Malnutrition | 263.0; 263.1; 263.2; 263.8; 263.9 |
| Anxiety | 300.x; 316.x; 311.x; 301.12; 300.4; 309.0; 309.1 |
| Weight loss | 783.2; 783.21; 783.22 |
| Wound complications | 998.83; 998.12; 998.13; 998.5; 998.6 |
| Depression | 300.4; 296.2; 296.3 |
| Previous steroid/immunomodulators use | V87.44; V87.45; V87.46; V87.49 |

CD: Crohn’s disease; IBD: inflammatory bowel disease; ICD-9-CM: International Classification of Diseases. Ninth Revision. Clinical Modification; UC: ulcerative colitis.

Supplementary Table 2. IBD-related surgical recurrence rates. mainland Portugal 2000-2015.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Crohn’s Disease** | | | | | | | | | | | | | | | | | |
|  | **2000-2015** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **n=1731** | **43** | **63** | **78** | **71** | **96** | **105** | **124** | **99** | **113** | **130** | **129** | **138** | **153** | **139** | **119** | **131** |
| **Mean (min-max)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Reoperation (per 100 000 hospitalization)** | 9.1 (3.7-13.0) | 3.7 | 5.3 | 6.5 | 5.8 | 8.0 | 8.7 | 10.3 | 8.0 | 9.2 | 10.8 | 10.8 | 11.7 | 13.0 | 12.0 | 10.3 | 11.3 |
| **Reoperation (per 100 000 habitant)** | 1.0 (0.4-1.5) | 0.4 | 0.6 | 0.8 | 0.7 | 0.9 | 1.0 | 1.2 | 0.9 | 1.1 | 1.2 | 1.2 | 1.3 | 1.5 | 1.3 | 1.1 | 1.3 |
| **Gender (per 100 000 habitant)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1.1 (0-4-1.5) | 0.4 | 0.8 | 0.8 | 0.8 | 0.8 | 1.1 | 0.9 | 1.0 | 1.0 | 1.5 | 1.4 | 1.5 | 1.4 | 1.4 | 1.3 | 1.3 |
| Female | 1.0 (0.4-1.5) | 0.4 | 0.4 | 0.7 | 0.6 | 1.0 | 0.9 | 1.4 | 0.8 | 1.1 | 1.0 | 1.1 | 1.2 | 1.5 | 1.2 | 1.0 | 1.3 |
| **Age (per 100 000 habitant)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-19 yr | 0.3 (0.1-0.6) | 0.2 | 0.3 | 0.3 | 0.1 | 0.3 | 0.5 | 0.3 | 0.3 | 0.2 | 0.3 | 0.4 | 0.5 | 0.4 | 0.3 | 0.4 | 0.6 |
| 20-39 yr | 2.1 (0.8-2.9) | 0.8 | 1.2 | 1.2 | 1.7 | 1.7 | 2.1 | 2.4 | 1.8 | 2.3 | 2.4 | 2.4 | 2.3 | 2.6 | 2.9 | 2.6 | 2.4 |
| 40-59 yr | 1.1 (0.4-1.8) | 0.5 | 0.5 | 0.9 | 0.4 | 1.0 | 0.8 | 1.3 | 1.1 | 1.1 | 1.4 | 1.3 | 1.8 | 1.8 | 1.5 | 1.1 | 1.4 |
| ≥60 yr | 0.4 (0.1-0.6) | 0.1 | 0.3 | 0.4 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.4 | 0.5 | 0.5 | 0.3 | 0.6 | 0.4 | 0.4 | 0.5 |
| **Ulcerative Colitis** | | | | | | | | | | | | | | | | | |
|  | **2000-2015** | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** |
| **n=483** | **12** | **21** | **13** | **24** | **36** | **22** | **35** | **28** | **27** | **40** | **25** | **43** | **32** | **43** | **44** | **38** |
| **Mean (min-max)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Reoperation (per 100 000 hospitalization)** | 2.5 (1.0-3.8) | 1.0 | 1.8 | 1.1 | 2.0 | 3.0 | 1.8 | 2.9 | 2.3 | 2.2 | 3.3 | 2.1 | 3.7 | 2.7 | 3.7 | 3.8 | 3.3 |
| **Reoperation (per 100 000 habitant)** | 0.3 (0.1-0.4) | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.2 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 |
| **Gender (per 100 000 habitant)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 0.3 (0.1-0.5) | 0.1 | 0.2 | 0.1 | 0.3 | 0.3 | 0.2 | 0.5 | 0.4 | 0.3 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.5 | 0.4 |
| Female | 0.2 (0.1-0.4) | 0.1 | 0.2 | 0.1 | 0.2 | 0.4 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 | 0.3 | 0.2 | 0.4 | 0.3 | 0.3 |
| **Age (per 100 000 habitant)** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-19 yr | 0.1 (0.0-0.4) | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.3 | 0.1 | 0.4 |
| 20-39 yr | 0.4 (0.1-0.8) | 0.1 | 0.3 | 0.2 | 0.3 | 0.5 | 0.2 | 0.5 | 0.3 | 0.3 | 0.5 | 0.2 | 0.7 | 0.4 | 0.5 | 0.8 | 0.4 |
| 40-59 yr | 0.3 (0.2-0.5) | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.5 | 0.4 | 0.3 |
| ≥60 yr | 0.3 (0.0-0.5) | 0.1 | 0.0 | 0.1 | 0.3 | 0.4 | 0.2 | 0.5 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 0.4 |

min: minimum; max: maximum; yr: years.

**Supplementary Table 3.** Univariate analysis of risk factors associated with surgical recurrence of UC patients.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Patients with 1 surgery (n=775)a** | **Patients with more than 1 surgery (n=123)b** |  |  | |  |
|  | **ORc** | **95% CI** | | **P-Value** |
| **Gender**. n (%) |  |  |  |  |  |  |
| Male | 429 (55.4) | 75 (61.0) | Ref |  |  |  |
| Female | 346 (44.6) | 48 (39.0) | **1.26** | **0.85** | **1.86** | **0.244** |
| **Disease Extension** |  |  |  |  |  |  |
| Proctitis | 63 (8.1) | 4 (3.3) | **0.38** | **0.14** | **1.06** | **0.065** |
| Proctosigmoiditis | 97 (12.5) | 12 (9.8) | 0.76 | 0.40 | 1.42 | 0.385 |
| Left side | 48 (6.2) | 2 (1.6) | **0.25** | **0.06** | **1.04** | **0.057** |
| Pancolitis | 137 (17.7) | 22 (17.9) | 1.01 | 0.612 | 1.67 | 0.955 |
| **Age** |  |  |  |  |  |  |
| <20 | 75 (9.7) | 15 (12.2) | Ref |  |  |  |
| 20-39 | 254 (32.8) | 47 (38.2) | 0.92 | 0.49 | 1.75 | 0.811 |
| 40-59 | 225 (29.0) | 42 (34.1) | 0.93 | 0.49 | 1.78 | 0.834 |
| ≥60 | 221 (28.5) | 19 (15.4) | 0.43 | 0.21 | 0.89 | 0.023 |
| **LOS** |  |  |  |  |  |  |
| 1 | 21 (2.7) | 3 (2.4) | Ref |  |  |  |
| 2-7 | 197 (25.5) | 25 (20.3) | 0.89 | 0.25 | 3.19 | 0.856 |
| 8-14 | 253 (32.7) | 41 (33.3) | 1.13 | 0.32 | 3.97 | 0.844 |
| >14 | 303 (39.1) | 54 (43.9) | 1.25 | 0.36 | 4.33 | 0.727 |
| **Admission Type** |  |  |  |  |  |  |
| Programmed | 241 (31.1) | 25 (20.5) | Ref |  |  |  |
| Emergent | 534 (68.9) | 97 (79.5) | **1.75** | **1.10** | **2.79** | **0.018** |
| **APR-DRG Risk of Severity** |  |  |  |  |  |  |
| Minor | 197 (82.4) | 30 (85.7) | Ref |  |  |  |
| Moderate | 28 (11.7) | 2 (5.7) | 0.47 | 0.11 | 2.07 | 0.318 |
| Major | 4 (1.7) | 3 (8.6) | 4.92 | 1.05 | 23.10 | 0.043 |
| Extreme | 10 (4.2) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| **APR-DRG Risk of Mortality** |  |  |  |  |  |  |
| Minor | 75 (31.4) | 8 (22.9) | Ref |  |  |  |
| Moderate | 126 (52.7) | 21 (60.0) | 1.56 | 0.66 | 3.70 | 0.311 |
| Major | 27 (11.3) | 5 (14.3) | 1.74 | 0.52 | 5.77 | 0.368 |
| Extreme | 11 (4.6) | 1 (2.9) | 0.85 | 0.10 | 7.49 | 0.885 |
| **Surgery related variables** |  |  |  |  |  |  |
| Abdominal surgery | 88 (11.4) | 7 (5.7) | **0.47** | **0.21** | **1.04** | **0.063** |
| Large intestinal resection | 189 (24.4) | 23 (18.7) | **0.71** | **0.44** | **1.15** | **0.169** |
| Anal/rectum surgery | 377 (48.6) | 38 (30.9) | **0.47** | **0.31** | **0.71** | **< 0.001** |
| Stoma surgery | 130 (16.8) | 22 (17.9) | 1.08 | 0.66 | 1.78 | 0.760 |
| Colostomy | 27 (3.5) | 1 (0.8) | **0.23** | **0.03** | **1.69** | **0.147** |
| Ileostomy | 105 (13.5) | 21 (17.1) | 1.31 | 0.79 | 2.19 | 0.297 |
| Laparoscopic colectomy | 5 (0.6) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| Partial/total colectomy | 174 (22.5) | 22 (17.9) | 0.75 | 0.46 | 1.23 | 0.256 |
| Total proctocolectomy | 56 (7.2) | 4 (3.3) | **0.43** | **0.15** | **1.21** | **0.111** |
| Colectomy/proctocolectomy | 200 (25.8) | 25 (20.3) | **0.73** | **0.46** | **1.17** | **0.194** |
| **Extraintestinal manifestations** | 49 (6.3) | 9 (7.3) | 1.17 | 0.56 | 2.45 | 0.677 |
| Pancreatic disease | 1 (0.1) | 1 (0.8) | **6.34** | **0.39** | **102.10** | **0.192** |
| Musculoskeletal disease | 17 (2.2) | 3 (2.4) | 1.11 | 0.32 | 3.86 | 0.864 |
| Hepatobiliary disease | 10 (1.3) | 2 (1.6) | 1.26 | 0.27 | 5.84 | 0.764 |
| Blood and vascular diseases | 4 (0.5) | 1 (0.8) | 1.58 | 0.17 | 14.25 | 0.684 |
| Renal disease | 1 (0.1) | 0 (0.0) | 0.00 | 0.00 |  | 1.000 |
| Ocular disease | 1 (0.1) | 0 (0.0) | 0.00 | 0.00 |  | 1.000 |
| **Hospital Volume** |  |  |  |  |  |  |
| Low | 30 (3.9) | 4 (3.3) | Ref |  |  |  |
| Moderate | 145 (18.7) | 32 (26.0) | 1.65 | 0.54 | 5.03 | 0.374 |
| High | 245 (31.6) | 31 (25.2) | 0.95 | 0.31 | 2.87 | 0.926 |
| Very High | 280 (87.5) | 40 (32.5) | 1.07 | 0.36 | 3.20 | 0.902 |
| Highest | 75 (9.7) | 16 (13.0) | 1.60 | 0.49 | 5.18 | 0.433 |
| **Others** |  |  |  |  |  |  |
| Anemia | 194 (25.0) | 37 (30.1) | **1.29** | **0.85** | **1.96** | **0.235** |
| Dehydration | 13 (1.7) | 2 (1.6) | 0.97 | 0.22 | 4.35 | 0.967 |
| Depression | 14 (1.8) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| Malnutrition | 20 (2.6) | 2 (1.6) | 0.62 | 0.14 | 2.70 | 0.528 |
| Weight loss | 11 (1.4) | 4 (3.3) | **2.33** | **0.73** | **7.45** | **0.152** |
| Smoking habits | 13 (1.7) | 1 (0.8) | 0.48 | 0.06 | 3.71 | 0.482 |
| Wound complications | 27 (3.5) | 4 (3.3) | 0.93 | 0.32 | 2.71 | 0.896 |
| Abdominal pain | 29 (3.7) | 5 (4.1) | 1.09 | 0.41 | 2.87 | 0.862 |
| GI complications | 64 (8.3) | 9 (7.3) | 0.88 | 0.42 | 1.81 | 0.723 |
| **Penetrating disease** | 35 (4.5) | 6 (4.9) | 1.08 | 0.45 | 2.63 | 0.858 |
| Bowel Obstruction | 19 (2.5) | 2 (0.8) | 0.33 | 0.04 | 2.46 | 0.277 |
| Perianal disease | 12 (1.5) | 2 (1.6) | 1.05 | 0.23 | 4.75 | 0.949 |
| Previous steroids/immunomodulators | 1 (0.1) | 0 (0.0) | 0.00 | 0.00 |  | 1.000 |

Variables used for the multivariate regression analysis in boldface (p<0.25).

APR-DRG: All Patient Refined-Diagnosis Related Group; CD: Crohn’s disease; CI: confidence interval; GI: gastrointestinal; LOS: length of stay; OR: odds ratio; yr: years.

a Refers to one-time surgery with absence of any subsequent surgery attributed to the same individual.

b Refers to patients with more than one surgery.

c For each OR. analyzed as dichotomous variables with two categories: presence versus absence (absence as a reference category).

Supplementary Table 4.Univariate analysis of risk factors associated with surgical recurrence of CD patients.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Patients with 1 surgery (n=2623)a** | **Patients with more than 1 surgery (n=189)b** |  |  | |  |
|  | **ORc** | **95% CI** | | **P-Value** |
| **Gender**. n (%) |  |  |  |  |  |  |
| Male | 1319 (50.3) | 107 (56.6) | Ref |  |  |  |
| Female | 1304 (49.7) | 82 (43.4) | **0.77** | **0.58** | **1.04** | **0.094** |
| **Disease Extension** |  |  |  |  |  |  |
| Ileal | 887 (33.8) | 53 (28.0) | **0.76** | **0.55** | **1.06** | **0.105** |
| Colic | 328 (12.5) | 33 (17.5) | **1.48** | **0.99** | **2.19** | **0.050** |
| Ileocolic | 921 (35.1) | 64 (33.9) | 0.95 | 0.69 | 1.29 | 0.728 |
| **Age** |  |  |  |  |  |  |
| <20 | 250 (9.5) | 23 (12.2) | Ref |  |  |  |
| 20-39 | 1341 (51.1) | 105 (55.6) | 0.85 | 0.53 | 1.36 | 0.502 |
| 40-59 | 745 (28.4) | 48 (25.4) | **0.70** | **0.42** | **1.17** | **0.177** |
| ≥60 | 287 (10.9) | 13 (6.9) | **0.49** | **0.24** | **0.99** | **0.048** |
| **LOS** |  |  |  |  |  |  |
| 1 | 95 (3.6) | 9 (4.8) | Ref |  |  |  |
| 2-7 | 880 (33.6) | 56 (29.6) | 0.67 | 0.32 | 1.40 | 0.289 |
| 8-14 | 919 (35.1) | 56 (29.6) | 0.64 | 0.31 | 1.34 | 0.239 |
| >14 | 727 (27.7) | 68 (36.0) | 0.99 | 0.48 | 2.04 | 0.973 |
| **Admission Type** |  |  |  |  |  |  |
| Programmed | 838 (32.1) | 57 (30.2) | Ref |  |  |  |
| Emergent | 1771 (67.9) | 132 (69.8) | 1.10 | 0.79 | 1.51 | 0.577 |
| **APR-DRG Risk of Severity** |  |  |  |  |  |  |
| Minor | 607 (78.5) | 16 (80.0) | Ref |  |  |  |
| Moderate | 115 (14.9) | 3 (15.0) | 0.99 | 0.28 | 3.45 | 0.987 |
| Major | 35 (4.5) | 1 (5.0) | 1.08 | 0.14 | 8.41 | 0.939 |
| Extreme | 16 (2.1) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| **APR-DRG Risk of Mortality** |  |  |  |  |  |  |
| Minor | 306 (39.6) | 10 (50.0) | Ref |  |  |  |
| Moderate | 305 (39.5) | 5 (25.0) | 0.50 | 0.17 | 1.48 | 0.213 |
| Major | 126 (16.3) | 3 (15.0) | 0.73 | 0.20 | 2.69 | 0.635 |
| Extreme | 36 (4.7) | 2 (10.0) | 1.70 | 0.36 | 8.06 | 0.504 |
| **Surgery related variables** |  |  |  |  |  |  |
| Abdominal surgery | 652 (24.9) | 39 (20.6) | **0.79** | **0.55** | **1.13** | **0.194** |
| Large intestinal resection | 947 (36.1) | 46 (24.3) | **0.57** | **0.40** | **0.80** | **0.001** |
| Anal/rectum surgery | 223 (8.5) | 21 (11.1) | **1.34** | **0.84** | **2.16** | **0.220** |
| Stoma surgery | 138 (5.3) | 10 (5.3) | 1.01 | 0.52 | 1.94 | 0.986 |
| Colostomy | 54 (2.1) | 5 (2.6) | 1.24 | 0.51 | 3.27 | 0.588 |
| Ileostomy | 96 (3.7) | 6 (3.2) | 0.86 | 0.37 | 1.99 | 0.731 |
| Laparoscopic colectomy | 72 (2.7) | 1 (0.5) | **0.19** | **0.03** | **1.36** | **0.098** |
| Partial/total colectomy | 882 (33.6) | 43 (22.8) | **0.58** | **0.41** | **0.82** | **0.002** |
| Total proctocolectomy | 29 (1.1) | 2 (1.1) | 0.96 | 0.23 | 4.04 | 0.952 |
| Colectomy/proctocolectomy | 904 (34.5) | 44 (23.3) | **0.58** | **0.41** | **0.82** | **0.002** |
| **Extraintestinal manifestations** | 66 (2.5) | 6 (3.2) | 1.27 | 0.54 | 2.97 | 0.581 |
| Pancreatic disease | 4 (0.2) | 1 (0.5) | 3.48 | 0.39 | 31.31 | 0.265 |
| Musculoskeletal disease | 34 (1.3) | 1 (0.5) | 0.40 | 0.05 | 2.97 | 0.374 |
| Hepatobiliary disease | 0 (0.0) | 0 (0.0) |  |  |  |  |
| Blood and vascular diseases | 6 (0.2) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| Renal disease | 5 (0.2) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |
| Ocular disease | 0 (0.0) | 0 (0.0) |  |  |  |  |
| **Hospital Volume** |  |  |  |  |  |  |
| Low | 99 (3.8) | 7 (3.7) | Ref |  |  |  |
| Moderate | 474 (18.1) | 30 (15.9) | 0.89 | 0.38 | 2.10 | 0.799 |
| High | 817 (31.1) | 53 (28.0) | 0.92 | 0.41 | 2.07 | 0.836 |
| Very High | 1007 (38.4) | 63 (33.3) | 0.88 | 0.39 | 1.98 | 0.766 |
| Highest | 226 (8.6) | 36 (19.0) | 2.25 | 0.97 | 5.24 | 0.059 |
| **Others** |  |  |  |  |  |  |
| Anemia | 343 (13.1) | 33 (17.5) | **1.41** | **0.95** | **2.08** | **0.089** |
| Dehydration | 31 (1.2) | 0 (0.0) | 0.00 | 0.00 |  | 0.998 |
| Depression | 24 (0.9) | 0 (0.0) | 0.00 | 0.00 |  | 0.998 |
| Malnutrition | 34 (1.3) | 5 (2.6) | **2.07** | **0.80** | **5.35** | **0.134** |
| Weight loss | 58 (2.2) | 5 (2.6) | 1.20 | 0.48 | 3.03 | 0.697 |
| Smoking habits | 111 (4.2) | 10 (5.3) | 1.26 | 0.65 | 2.46 | 0.489 |
| Wound complications | 113 (4.3) | 6 (3.2) | 0.73 | 0.32 | 1.68 | 0.457 |
| Abdominal pain | 174 (6.6) | 12 (6.3) | 0.95 | 0.52 | 1.75 | 0.879 |
| **GI complications** | 1033 (39.4) | 69 (36.5) | 0.88 | 0.65 | 1.20 | 0.435 |
| Penetrating disease | 519 (19.8) | 31 (16.4) | 0.79 | 0.53 | 1.18 | 0.258 |
| Bowel Obstruction | 526 (20.1) | 36 (19.0) | 0.94 | 0.64 | 1.36 | 0.738 |
| Perianal disease | 89 (3.4) | 11 (11.0) | **1.76** | **0.92** | **3.35** | **0.086** |
| Previous steroids/immunomodulators | 2 (0.1) | 0 (0.0) | 0.00 | 0.00 |  | 0.999 |

Variables used for the multivariate regression analysis in boldface (p<0.25).

APR-DRG. All Patient Refined-Diagnosis Related Group; CD. Crohn’s disease; CI. confidence interval; GI. gastrointestinal; LOS. length of stay; OR. odds ratio; yr. years.

a Refers to one-time surgery with absence of any subsequent surgery attributed to the same individual.

b Refers to patients with more than one surgery.

c For each OR. analyzed as dichotomous variables with two categories: presence versus absence (absence as a reference category).