## Supplemental Digital Content 2: Additional study data

Table 1: Characteristics of study cohort by procedure category

| Characteristic | No. (\%) |  |  |
| :---: | :---: | :---: | :---: |
|  | Ophthalmologic surgery | Low-risk surgery | Overall |
| All cases | 759,644 (57.1\%) | 570,822 (42.9\%) | 1,330,466 |
| Female sex* | 431,963 (56.9\%) | 293,165 (51.4\%) | 725,128 (54.5\%) |
| Age, mean (SD)* | $70.8 \pm 11.4$ | $54.9 \pm 16.9$ | $64.0 \pm 16.1$ |
| 18-25 | 3,309 (0.4\%) | 30,594 (5.4\%) | 33,903 (2.5\%) |
| 26-35 | 5,865 (0.8\%) | 48,331 (8.5\%) | 54,196 (4.1\%) |
| 36-45 | 13,963 (1.8\%) | 88,090 (15.4\%) | 102,053 (7.7\%) |
| 46-55 | 47,114 (6.2\%) | 125,934 (22.1\%) | 173,048 (13.0\%) |
| 56-64 | 115,985 (15.3\%) | 103,703 (18.2\%) | 219,688 (16.5\%) |
| 65-74 | 253,444 (33.4\%) | 94,246 (16.5\%) | 347,690 (26.1\%) |
| 75-84 | 259,377 (34.1\%) | 63,054 (11.0\%) | 322,431 (24.2\%) |
| $\geq 85$ | 60,587 (8.0\%) | 16,870 (3.0\%) | 77,457 (5.8\%) |
| Residence* |  |  |  |
| Rural | 76,523 (10.1\%) | 58,625 (10.3\%) | 135,148 (10.2\%) |
| Suburban | 184,355 (24.3\%) | 141,839 (24.8\%) | 326,194 (24.5\%) |
| Urban | 493,190 (64.9\%) | 365,977 (64.1\%) | 859,167 (64.6\%) |
| Missing | 5,576 (0.7\%) | 4,381 (0.8\%) | 9,957 (0.7\%) |
| Neighbourhood income quintile* |  |  |  |
| Q1 (lowest) | 148,154 (19.5\%) | 100,515 (17.6\%) | 248,669 (18.7\%) |
| Q2 | 158,349 (20.8\%) | 110,989 (19.4\%) | 269,338 (20.2\%) |
| Q3 | 152,246 (20.0\%) | 114,282 (20.0\%) | 266,528 (20.0\%) |
| Q4 | 152,910 (20.1\%) | 123,024 (21.6\%) | 275,934 (20.7\%) |
| Q5 (highest) | 147,985 (19.5\%) | 122,012 (21.4\%) | 269,997 (20.3\%) |
| Comorbidities |  |  |  |
| Coronary artery disease* | 30,923 (4.1\%) | 12,387 (2.2\%) | 43,310 (3.3\%) |
| Atrial fibrillation/flutter* | 18,766 (2.5\%) | 7,107 (1.2\%) | 25,873 (1.9\%) |
| Other cardiac arrhythmia* | 6,918 (0.9\%) | 2,711 (0.5\%) | 9,629 (0.7\%) |
| Cardiac valvular disease* | 4,171 (0.5\%) | 1,486 (0.3\%) | 5,657 (0.4\%) |
| Cerebrovascular disease* | 7,046 (0.9\%) | 2,384 (0.4\%) | 9,430 (0.7\%) |
| Peripheral vascular disease* | 6,104 (0.8\%) | 2,545 (0.4\%) | 8,649 (0.7\%) |
| Venous thromboembolism* | 1,385 (0.2\%) | 882 (0.2\%) | 2,267 (0.2\%) |
| Heart failure* | 68,101 (9.0\%) | 21,226 (3.7\%) | 89,327 (6.7\%) |
| Myocardial infarction* | 9,522 (1.3\%) | 3,532 (0.6\%) | 13,054 (1.0\%) |
| Chronic renal disease* | 10,406 (1.4\%) | 4,709 (0.8\%) | 15,115 (1.1\%) |
| Liver disease* | 1,646 (0.2\%) | 860 (0.2\%) | 2,506 (0.2\%) |
| Anemia* | 24,169 (3.2\%) | 11,149 (2.0\%) | 35,318 (2.7\%) |
| Gastrointestinal bleeds* | 8,373 (1.1\%) | 4,139 (0.7\%) | 12,512 (0.9\%) |
| Other blood diseases* | 4,307 (0.6\%) | 2,693 (0.5\%) | 7,000 (0.5\%) |
| Asthma* | 106,208 (14.0\%) | 88,488 (15.5\%) | 194,696 (14.6\%) |
| COPD* | 161,155 (21.2\%) | 76,975 (13.5\%) | 238,130 (17.9\%) |
| Cardiac risk factors |  |  |  |
| Diabetes* | 239,617 (31.5\%) | 93,445 (16.4\%) | 333,062 (25.0\%) |
| Hypertension* | 516,816 (68.0\%) | 229,015 (40.1\%) | 745,831 (56.1\%) |

Supplemental digital content to: Kirkham KR, Wijeysundera DN, Pendrith C, Ng R, Levinson W, Tu JV, Boozary A, Tepper J, Schull MJ, Bhatia RS. Preoperative Laboratory Investigations: Rates and Variability Prior to Low-risk Surgical Procedures

| Characteristic | No. (\%) |  |  |
| :---: | :---: | :---: | :---: |
|  | Ophthalmologic surgery | Low-risk surgery | Overall |
| Hyperlipidemia* | 56,981 (7.5\%) | 22,329 (3.9\%) | 79,310 (6.0\%) |
| Prior cardiac procedures |  |  |  |
| Aortic valve replacement* | 4,991 (0.7\%) | 1,777 (0.3\%) | 6,768 (0.5\%) |
| Mitral valve replacement* | 1,490 (0.2\%) | 507 (0.1\%) | 1,997 (0.2\%) |
| Coronary revascularization* | 49,443 (6.5\%) | 18,989 (3.3\%) | 68,432 (5.1\%) |
| Device implantation* | 14,749 (1.9\%) | 4,773 (0.8\%) | 19,522 (1.5\%) |
| Surgical site* |  |  |  |
| Inpatient procedure | 2,502 (0.3\%) | 90,185 (15.8\%) | 92,687 (7.0\%) |
| Same-day-surgery | 757,142 (99.7\%) | 480,637 (84.2\%) | 1,237,779 (93.0\%) |
| Preoperative consultation |  |  |  |
| Anesthesia* | 45,454 (6.0\%) | 107,537 (18.8\%) | 152,991 (11.5\%) |
| Medical* | 40,119 (5.3\%) | 29,606 (5.2\%) | 69,725 (5.2\%) |

Characterization of the study cohort as defined by all covariates. Values given as frequencies (\%) unless stated otherwise.

* = p-value < 0.05; SD = standard deviation; COPD = chronic obstructive pulmonary disorder

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Table 2: Annual proportions of preoperative laboratory investigations for overall cohort and by procedure category

|  | Ophthalmologic surgery | Low-risk surgery | Overall |
| :---: | :---: | :---: | :---: |
| Any blood work |  |  |  |
| 2008 | 34.9\% (34.7-35.1) | 24.8\% (24.5-25.0) | 30.7\% (30.5-30.9) |
| 2009 | 35.6\% (35.3-35.8) | 26.0\% (25.7-26.2) | 31.4\% (31.3-31.6) |
| 2010 | 34.6\% (34.3-34.8) | 26.2\% (26.0-26.5) | 31.0\% (30.8-31.2) |
| 2011 | 31.2\% (31.0-31.5) | 26.3\% (26.1-26.6) | 29.1\% (28.9-29.3) |
| 2012 | 29.6\% (29.3-29.8) | 25.7\% (25.4-26.0) | 27.9\% (27.7-28.0) |
| All years | 33.3\% (33.2-33.4) | 25.8\% (25.7-25.9) | 30.1\% (30.0-30.1) |
| CBC |  |  |  |
| 2008 | 27.1\% (26.9-27.3) | 20.4\% (20.1-20.6) | 24.3\% (24.1-24.5) |
| 2009 | 27.5\% (27.2-27.7) | 21.2\% (21.0-21.4) | 24.8\% (24.6-24.9) |
| 2010 | 26.6\% (26.4-26.8) | 21.6\% (21.3-21.8) | 24.5\% (24.3-24.6) |
| 2011 | 23.3\% (23.1-23.5) | 22.0\% (21.7-22.2) | 22.7\% (22.5-22.9) |
| 2012 | 22.1\% (21.9-22.3) | 21.5\% (21.2-21.7) | 21.8\% (21.7-22.0) |
| All years | 25.4\% (25.3-25.5) | 21.3\% (21.2-21.4) | 23.7\% (23.6-23.7) |
| PT |  |  |  |
| 2008 | 7.1\% (7.0-7.3) | 4.8\% (4.6-4.9) | 6.1\% (6.0-6.2) |
| 2009 | 7.5\% (7.3-7.6) | 4.6\% (4.5-4.7) | 6.2\% (6.1-6.3) |
| 2010 | 6.9\% (6.8-7.0) | 5.0\% (4.9-5.1) | $6.1 \%$ (6.0-6.2) |
| 2011 | 6.3\% (6.2-6.4) | 5.0\% (4.9-5.2) | 5.7\% (5.7-5.8) |
| 2012 | 5.7\% (5.5-5.8) | 5.2\% (5.0-5.3) | 5.4\% (5.4-5.5) |
| All years | 6.7\% (6.7-6.8) | 4.9\% (4.8-5.0) | 5.9\% (5.9-6.0) |
| PTT |  |  |  |
| 2008 | 0.4\% (0.4-0.5) | 0.7\% (0.7-0.8) | 0.5\% (0.5-0.6) |
| 2009 | 0.5\% (0.4-0.5) | 0.7\% (0.6-0.7) | 0.6\% (0.5-0.6) |
| 2010 | 0.2\% (0.2-0.3) | 0.7\% (0.6-0.7) | 0.4\% (0.4-0.4) |
| 2011 | 0.2\% (0.2-0.2) | 0.7\% (0.6-0.7) | 0.4\% (0.4-0.4) |
| 2012 | 0.2\% (0.2-0.2) | 0.7\% (0.7-0.8) | 0.4\% (0.4-0.5) |
| All years | 0.3\% (0.3-0.3) | 0.7\% (0.7-0.7) | 0.5\% (0.5-0.5) |
| Basic metabolic panel |  |  |  |
| 2008 | 29.5\% (29.3-29.7) | 19.7\% (19.4-19.9) | 25.4\% (25.2-25.6) |
| 2009 | 30.2\% (30.0-30.4) | 21.0\% (20.7-21.2) | 26.2\% (26.1-26.4) |
| 2010 | 29.3\% (29.0-29.5) | 21.2\% (20.9-21.4) | 25.8\% (25.6-26.0) |
| 2011 | 26.0\% (25.8-26.2) | 21.6\% (21.4-21.8) | 24.1\% (23.9-24.3) |
| 2012 | 24.7\% (24.4-24.9) | 21.1\% (20.9-21.4) | 23.1\% (22.9-23.3) |
| All years | 28.0\% (27.9-28.1) | 20.9\% (20.8-21.0) | 25.0\% (24.9-25.0) |

Values given as proportions (binominal proportion $95 \%$ confidence intervals).
$\mathrm{CBC}=$ complete blood count; $\mathrm{PT}=$ prothrombin time; PTT = partial thromboplastin time.

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