**Supplemental Table 4. Baseline and intraoperative characteristics by exposure (N = 4506).**

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| **Factor** | **Lowest MAP sustained for at least a cumulative of 5 minutes** |
|  | **15-55 mmHg(N=1495)** | **55-64 mmHg(N=1528)** | **64-139 mmHg(N=1483)** | **ASD** |
| **Age, years** | 6.5 ± 5.8 | 10.5 ± 5.4 | 11.8 ± 4.9 | 0.71 |
| **Age group** € |  |  |  | 0.72 |
|  < 2 years old | 507 (34) | 137 (9.0) | 62 (4.2) |  |
|  2-6 years old | 318 (21) | 274 (18) | 186 (13) |  |
|  6-12 years old | 295 (20) | 369 (24) | 398 (27) |  |
|  12-18 years old | 375 (25) | 748 (49) | 837 (56) |  |
| **Female** € | 712 (48) | 727 (48) | 641 (43) | <0.01 |
| **Weight, kg** € | 25 ± 21 | 41 ± 25 | 47 ± 27 | 0.70 |
| **Baseline MAP, mmHg** € | 74 ± 13 | 80 ± 10 | 84 ± 10 | 0.53 |
|  < 2 years old | 67 ± 15 | 79 ± 14 | 80 ± 13 |  |
|  2-6 years old | 75 ± 12 | 79 ± 11 | 83 ± 12 |  |
|  6-12 years old | 76 ± 10 | 79 ± 10 | 82 ± 10 |  |
|  12-18 years old | 80 ± 10 | 82 ± 9 | 85 ± 9 |  |
| **ASA status** € |  |  |  | 0.24 |
|  I-II | 500 (33) | 635 (41) | 634 (43) |  |
|  III | 853 (57) | 803 (53) | 740 (50) |  |
|  IV-V | 142 (10) | 90 (6) | 109 (7) |  |
| **Race** € |  |  |  | 0.05 |
|  Black | 198 (13) | 182 (12) | 224 (15) |  |
| . White | 1060 (71) | 1112 (73) | 988 (67) |  |
|  Other | 237 (16) | 234 (15) | 271 (18) |  |
| **Preoperative creatinine, mg/dl** | 0.38 [0.25, 0.55] | 0.50 [0.39, 0.68] | 0.60 [0.40, 0.70] | 0.53 |
| **Preoperative hemoglobin, g/dl** € | 12.0 [10.4, 13.3] | 12.0 [10.4, 13.4] | 12.0 [10.2, 13.5] | <0.01 |
| **Preoperative sepsis** € | 144 (9.6) | 60 (3.9) | 64 (4.3) | 0.23 |
| **History of organ transplant** € | 74 (4.9) | 46 (3.0) | 57 (3.8) | 0.10 |
| **Preoperative tacrolimus use** € | 32 (2.1) | 29 (1.9) | 53 (3.6) | 0.02 |
| **Preoperative cyclosporine use** € | 5 (0.33) | 8 (0.52) | 4 (0.27) | 0.03 |
| **Preoperative furosimide use** € | 97 (6.5) | 76 (5.0) | 82 (5.5) | 0.07 |
| **Preoperative comorbidity**  |  |  |  |  |
|  Congestive heart failure | 11 (0.7) | 6 (0.4) | 10 (0.7) | 0.05 |
|  Valvular disease | 23 (1.5) | 19 (1.2) | 22 (1.5) | 0.03 |
|  Pulmonary circulation disease | 13 (0.9) | 9 (0.6) | 6 (0.4) | 0.03 |
|  Peripheral vascular disease | 15 (1.0) | 12 (0.8) | 16 (1.1) | 0.02 |
|  Hypertension € | 72 (4.8) | 81 (5.3) | 129 (8.7) | 0.02 |
|  Paralysis | 186 (12) | 128 (8.4) | 91 (6.1) | 0.13 |
|  Other neurological disorders | 309 (21) | 242 (16) | 166 (11) | 0.13 |
|  Chronic pulmonary disease € | 84 (5.6) | 123 (8.0) | 151 (10) | 0.10 |
|  Diabetes w/o chronic complications | 9 (0.6) | 18 (1.2) | 26 (1.8) | 0.06 |
|  Hypothyroidism | 44 (2.9) | 25 (1.6) | 22 (1.5) | 0.09 |
|  Liver disease € | 80 (5.4) | 56 (3.7) | 84 (5.7) | 0.08 |
|  Peptic ulcer Disease x bleeding | 2 (0.1) | 3 (0.2) | 10 (0.7) | 0.02 |
|  Lymphoma | 15 (1.0) | 42 (2.7) | 53 (3.6) | 0.13 |
|  Metastatic cancer | 57 (3.8) | 49 (3.2) | 51 (3.4) | 0.03 |
|  Solid tumor w/out metastasis | 99 (6.6) | 116 (7.6) | 84 (5.7) | 0.04 |
|  Rheumatoid arthritis/collagen vascular disease | 3 (0.20) | 16 (1.0) | 9 (0.6) | 0.12 |
|  Coagulopathy | 130 (8.7) | 96 (6.3) | 82 (5.5) | 0.09 |
|  Obesity € | 27 (1.8) | 63 (4.1) | 113 (7.6) | 0.14 |
|  Weight loss | 128 (8.6) | 159 (11) | 212 (14) | 0.06 |
|  Fluid and electrolyte disorders € | 343 (23) | 272 (18) | 326 (22) | 0.13 |
|  Chronic blood loss anemia € | 21 (1.4) | 34 (2.2) | 51 (3.4) | 0.06 |
|  Deficiency Anemias € | 257 (17) | 215 (14) | 195 (13) | 0.09 |
| **Intraoperative variables** € |  |  |  | 0.17 |
|  Norepinephrine, mg  | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.23 |
|  Phenylephrine, mg  | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.10 |
|  Ephedrine, mg  | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.00 [0.00, 0.00] | 0.16 |
|  Crystalloid, cc | 655.0 [240.0, 1650.0] | 800.0 [300.0, 1900.0] | 600.0 [300.0, 1100.0] | 0.15 |
|  Use of intravenous contrast material  | 33 (2.2) | 71 (4.6) | 85 (5.7) | 0.13 |
|  Ketorolac  | 107 (7.1) | 188 (12) | 190 (13) | 0.17 |
|  Gentamycin  | 37 (2.5) | 31 (2.0) | 20 (1.3) | 0.03 |
|  Vancomycin  | 142 (9.5) | 95 (6.2) | 48 (3.2) | 0.12 |
| **Emergent surgery** € | 173 (12) | 227 (15) | 291 (20) | 0.10 |
| **Surgery type** € |  |  |  | 0.34 |
| Miscellaneous diagnostic and therapeutic procedures | 157 (11) | 97 (6) | 86 (6) |  |
| Operations on the cardiovascular system £ | 55 (4) | 95 (6) | 100 (7) |  |
| Operations on the digestive system | 389 (26) | 476 (31) | 695 (47) |  |
| Operations on the hemic and lymphatic system | 76 (5) | 98 (6) | 80 (5) |  |
| Operations on the integumentary system | 57 (4) | 95 (6) | 92 (6) |  |
| Operations on the musculoskeletal | 242 (16) | 216 (14) | 110 (7) |  |
| Operations on the nervous system | 386 (26) | 296 (20) | 171 (12) |  |
| Operations on the respiratory system | 64 (4) | 56 (4) | 49 (3) |  |
| Operations on the urinary system | 19 (1) | 43 (3) | 24 (2) |  |
| Others | 50 (3) | 56 (4) | 76 (5) |  |
| **Surgery duration, minutes** € | 280 ± 176 | 219 ± 152 | 152 ± 104 | 0.37 |
| **Intraoperative BP measurement, arterial catheter** € | 646 (43) | 426 (28) | 152 (10) | 0.32 |

ASD= absolute standardized difference; MAP: mean arterial pressure; BP= blood pressure;

Summary statistics are presented as mean ± SD, median [P25, P75], or N (column %).

Surgery type was grouped by the Agency for Healthcare Research and Quality’s Clinical Classifications Software for Services and Procedures (AHRQ-CCS) and low-frequency-event or non-event categories [N<10] were grouped into “other” group)

€ Confounders adjusted for in the multivariable analysis. Baseline BP was only adjusted for when the exposure was lowest MAP and site was also adjusted for in all the multivariable analysis.

£ Operations on cardiovascular system included other vascular catheterization; not heart, peripheral vascular bypass, other vascular bypass and shunt; not heart, hemodialysis, other operating room procedures on vessels of head and neck, embolectomy and endarterectomy of lower limbs, other operating room procedures on vessels other than head and neck, other diagnostic cardiovascular procedures, and other non-operating room therapeutic cardiovascular procedures.