Table 1. Sensitivity, positive predictive value and specificity of semi-automated surveillance system for identifying SSI by each procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No. of  procedures (%) | Sensitivity  % | PPV  % | Specificity  % |
| Procedures (n= 40,561) |  |  |  |  |
| CABGa | 887 (2.2) | 100 | 4.5 | 63.6 |
| Cardiac surgery | 160 (0.4) | 100 | 3.4 | 45.2 |
| Heart transplantationb | 34 (0.1) | - | - | 0 |
| Craniotomy | 835 (2.1) | 100 | 4.7 | 50.4 |
| Ventricular shunt | 351 (0.9) | 80 | 1.7 | 35.3 |
| Knee prosthesis | 2362 (5.8) | 100 | 1.6 | 66.6 |
| Hip prosthesis | 842 (2.1) | 100 | 0.3 | 64.0 |
| Limb amputation | 31 (0.1) | 100 | 14.3 | 11.1 |
| Open reduction of fracture | 527 (1.3) | 100 | 1.0 | 63.2 |
| Laminectomy | 533 (1.3) | 100 | 2.5 | 70.7 |
| Spinal fusion | 579 (1.5) | 100 | 2.0 | 57.1 |
| AAA repairb | 73 (0.2) | - | - | 28.8 |
| Carotid endarterectomyb | 134 (0.3) | - | - | 71.6 |
| Peripheral vascular  bypass surgery | 167 (0.4) | 100 | 2.6 | 30.5 |
| Shunt for dialysis | 469 (1.2) | 100 | 3.6 | 64.8 |
| Breast surgery | 4330 (10.7) | 100 | 2.0 | 76.4 |
| Thyroid and/or  parathyroid surgery | 2786 (6.9) | 66.7 | 1.3 | 94.8 |
| Neck surgery | 1120 (2.8) | 100 | 3.5 | 58.1 |
| Thoracic surgery | 3698 (9.1) | 100 | 0.5 | 54.0 |
| Cesarean section | 1399 (3.5) | 100 | 8.5 | 83.3 |
| Hysterectomyc | 1717 (4.2) | 100 | 3.3 | 62.1 |
| Ovarian surgery | 2589 (6.4) | 100 | 3.0 | 73.3 |
| Kidney transplantation | 238 (0.6) | 100 | 2.9 | 0.7 |
| Kidney surgery | 1114 (2.7) | 100 | 1.7 | 58.0 |
| Prostate surgery | 673 (1.7) | 100 | 1.6 | 14.0 |
| Gastric surgery | 2942 (7.3) | 89.8 | 8.7 | 80.8 |
| Small bowel surgery | 289 (0.7) | 100 | 11.3 | 35.2 |
| Appendix surgery | 393 (1.0) | 100 | 8.5 | 60.4 |
| Colon surgery | 1664 (4.1) | 95.2 | 17.7 | 75.5 |
| Rectal surgery | 938 (2.4) | 98.0 | 20.8 | 79.6 |
| Gallbladder surgery | 2783 (6.9) | 61.5 | 2.6 | 82.4 |
| Bile duct, liver  or pancreatic surgery | 2049 (5.1) | 100 | 8.4 | 53.0 |
| Liver transplantation | 198 (0.5) | 100 | 7.1 | 0.5 |
| Spleen surgery | 200 (0.5) | 100 | 0.8 | 38.7 |
| Exploratory Laparotomy | 680 (1.7) | 100 | 3.8 | 47.4 |
| Herniorrhaphy | 692 (1.7) | 100 | 0.7 | 78.7 |

SSI, surgical site infection; PPV, positive predictive value; CABG, coronary artery bypass graft; AAA, abdominal aortic aneurysm

aCABG included CABG with both chest and donor site incisions and CABG with chest incision only.

bThere was no SSIs detected after heart transplantation, AAA repair and carotid endarterectomyduring the surveillance period. So, the sensitivity and PPV were not calculated.

cHysterectomy included abdominal hysterectomy and vaginal hysterectomy.