**Supplemental Table 1.** SSI by reported penicillin allergy status and procedure

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| --- | --- | --- | --- | --- | --- |
| **Procedure** N (%) | | **Reported Penicillin Allergy (n=978)** | | **No Reported Penicillin Allergy (n=8,026)** | |
| SSI  (n=34) | No SSI (n=944) | SSI  (n=207) | No SSI (n=7,819) |
| HPRO | 2,624 (29.1) | 3 (1.1) | 279 (98.9) | 28 (1.2) | 2,314 (98.8) |
| KPRO | 2,439 (27.1) | 4 (1.5) | 263 (98.5) | 22 (1.0) | 2,150 (99.0) |
| HYST | 1,560 (17.3) | 8 (3.5) | 222 (96.5) | 27 (2.0) | 1,303 (98.0) |
| COLO | 1,250 (13.9) | 17 (14.2) | 103 (85.8) | 109 (9.7) | 1,021 (90.3) |
| CABG | 1,131 (12.6) | 2 (2.5) | 77 (97.5) | 21(2.0) | 1,031 (98.0) |
| Total | 9,004 (100.0) | 34 (3.5) | 944 (96.5) | 207 (2.6) | 7,819 (97.4) |
| *Abbreviations*: SSI, surgical site infection; HPRO, hip arthroplasty; KPRO, knee arthroplasty; HYST, hysterectomy; COLO, colon surgery; CABG, coronary artery bypass grafting. | | | | | |

**Supplemental Table 2.** Perioperative antibiotic use considering only preoperative antibiotics (i.e., from 120 minutes prior to surgical incision until incision).

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| --- | --- | --- | --- | --- |
| **Perioperative Antibiotic** | **All**  **(n=9,004)** | **Reported Penicillin Allergy**  **(n=978)** | **No Reported**  **Penicillin Allergy**  **(n=8,026)** | **P**  **Value\*** |
| Beta-Lactam Antibiotic | 7,513 (85.4) | 122 (12.8)† | 7,391 (94.2) ‡ | <0.0001 |
| Cefazolin | 7,398 (84.1) | 115 (12.1)\* | 7,283 (92.8)† | <0.0001 |
| Cefoxitin | 41 (0.5) | 3 (0.3) | 38 (0.5) | 0.47 |
| Ampicillin | 36 (0.4) | 0 (0.0) | 36 (0.5)‖ | 0.04 |
| Cefepime | 13 (0.2) | 0 (0.0) | 13 (0.2) | 0.21 |
| Other | 33 (0.4) | 4 (0.4)§ | 29 (0.4)\*\* | 0.81 |
| Non-Beta-Lactam Antibiotic | 2,222 (25.3) | 848 (89.3) †† | 1,374 (17.5) ‡‡ | <0.0001 |
| Vancomycin | 544 (6.2) | 327 (34.4) | 217 (2.8) | <0.0001 |
| Clindamyin | 697 (7.9) | 466 (49.0) | 231 (2.9) | <0.0001 |
| Gentamicin | 400 (4.6) | 223 (23.5) | 177 (2.3) | <0.0001 |
| Fluoroquinolone | 140 (1.6) | 58 (6.1) | 82 (1.1) | <0.0001 |
| Metronidazole | 917 (10.4) | 60 (6.3) | 857 (10.9) | <0.0001 |
| Other | 16 (0.2) | 5 (0.5)‖‖ | 11 (0.1)§§ | 0.008 |
| No antibiotic during specified time | 209 (2.3) | 28 (2.9) | 181 (2.3) | 0.23 |

\*Chi-squared test.

† 0 patients also received vancomycin.

‡39 patients also received vancomycin.

‖ With sulbactam (n=5).

§Including ceftriaxone (n=3) and piperacillin/tazobactam (n=1).

\*\* Including amoxicillin (n=1), ceftazidime (n=1), ceftriaxone (n=10), ertapenem (n=4), imipenem (n=2), meropenem (n=1), nafcillin (n=3), penicillin G (n=1), and piperacillin/tazobactam (n=6).

††0 patients also received a beta-lactam antibiotic.

‡‡49 patients also received a beta-lactam antibiotic.

‖‖Including linezolid (n=2) and other antibiotics (n=3).

§§ Including azithromycin (n=2), aztreonam (n=1), daptomycin (n=4), linezolid (n=2), meropenem (n=1), and other antibiotics (n=3).