**Supplementary Table 1.** Performance Characteristics of PJI Identification Algorithms Comprised of Diagnosis and Procedure Codes From the Discharge Abstract Database Tested Individually and in Combinationa

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| --- | --- | --- | --- | --- |
| Diagnosis and/or Procedure Codes | Sensitivity | Specificity | Negative Predictive Value | Positive Predictive Value |
| PJI | 293/3540.83 (0.78–0.87) | 4,046/4,1920.97 (0.96–0.97) | 4,046/4,1070.99 (0.98–0.99) | 293/4390.67 (0.62–0.71) |
| Orthopedic procedure | 328/3540.93 (0.89–0.95) | 3,115/4,1920.74 (0.73–0.76) | 3,115/3,1410.99 (0.99–0.99) | 328/1,4050.23 (0.21–0.26) |
| PICC | 249/3540.70 (0.65–0.75) | 3,896/4,1920.93 (0.92–0.94) | 3,896/4,0010.97 (0.97–0.98) | 249/5450.46 (0.41–0.50) |
| PJI OR PICC + orthopedic procedure | 309/3540.87 (0.83–0.91) | 4,031/4,1920.96 (0.96–0.97) | 4,031/4,0760.99 (0.99–0.99) | 309/4700.66 (0.61–0.70) |
| PJI + orthopedic procedure | 283/3540.80 (0.75–0.84) | 4,066/4,1920.97 (0.96–0.97) | 4,066/4,1370.98 (0.98–0.99) | 283/4090.69 (0.64–0.74) |
| PJI + orthopedic procedure OR PJI + PICC | 289/3540.82 (0.77–0.86) | 4,058/4,1920.97 (0.96–0.97) | 4,058/4,1230.98 (0.98–0.99) | 289/4230.68 (0.64–0.73) |
| Orthopedic procedure + PICC | 236/3540.67 (0.61–0.72) | 4,092/4,1920.98 (0.97–0.98) | 4,092/4,2100.97 (0.97–0.98) | 236/3360.70 (0.65–0.75) |
| PJI OR wound disruption | 301/3540.85 (0.81–0.89) | 4,001/4,1920.95 (0.95–0.96) | 4,001/4,0540.99 (0.98–0.99) | 301/4920.61 (0.57–0.66) |
| PJI + PICC OR wound disruption + PICC | 223/3540.63 (0.58–0.68) | 4,106/4,1920.98 (0.97–0.98) | 4,106/4,2370.97 (0.96–0.97) | 223/3090.72 (0.67–0.77) |
| PJI OR excision + PICC | 306/3540.86 (0.82–0.90) | 4,038/4,1920.96 (0.96–0.97) | 4,038/4,0860.99 (0.98–0.99) | 306/4600.67 (0.62–0.71) |
| PJI OR spacer | 299/3540.84 (0.80–0.88) | 4,044/4,1920.96 (0.96–0.97) | 4,044/4,0990.99 (0.98–0.99) | 299/4470.67 (0.62–0.71) |
| PJI OR spacer OR arthroplasty + PICC | 266/3540.75 (0.70–0.80) | 3,887/4,1920.93 (0.92–0.93) | 3,887/3,9750.98 (0.97–0.98) | 266/5710.47 (0.42–0.51) |
| Recursive partitioning | 299/3540.84 (0.80–0.88) | 4,044/4,1920.96 (0.96–0.97) | 4,044/4,0990.99 (0.98–0.99) | 299/4470.67 (0.62–0.71) |

Note. PJI, prosthetic joint infection; PICC, peripherally inserted central catheter.

aThe denominator includes nonprimary arthroplasty readmissions and the first admission where a PJI was observed by chart review.