**SUPPLEMENTAL DATA**

**Supplemental Table 1. Performance characteristics of the predictive tool at different cut points in the validation cohort**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Cut Point1** | **Sensitivity** | **Specificity** | **PPV** | **NPV** |
| -3 | 100% | 0% | 61.7% | N/A2 |
| -2 | 100% | 0% | 61.7% | N/A2 |
| -1 | 100% | 0% | 61.7% | N/A2 |
| 0 | 100% | 0% | 61.7% | N/A2 |
| 1 | 100% | 0% | 61.7% | N/A2 |
| 2 | 99.5% | 0.7% | 61.8% | 50.0% |
| 3 | 99.1% | 0.73% | 61.7% | 33.3% |
| 4 | 99.1% | 2.19% | 62.0% | 60.0% |
| 5 | 95.0% | 10.2% | 63.1% | 56.0% |
| 6 | 89.6% | 21.2% | 64.7% | 55.8% |
| 7 | 82.4% | 37.2% | 67.9% | 56.7% |
| 8 | 72.0% | 54.0% | 71.6% | 54.4% |
| 9 | 61.1% | 67.1% | 75.0% | 51.7% |
| 10 | 61.1% | 67.2% | 75.0% | 51.7% |
| 11 | 43.0% | 83.9% | 81.2% | 47.7% |
| 12 | 23.5% | 92.7% | 83.9% | 42.9% |
| 13 | 20.4% | 94.2% | 84.9% | 42.3% |
| 14 | 17.2% | 96.4% | 88.4% | 41.9% |
| 15 | 8.6% | 98.5% | 90.5% | 40.1% |
| 16 | 4.1% | 98.5% | 81.8% | 38.9% |
| 17 | 0% | 100% | N/A2 | 38.3% |
| 18 | 0% | 100% | N/A2 | 38.3% |

1Cumulative number of points on predictive model to be achieved or exceeded to warrant designation as “high risk” of ESBL-EB BSI

2Unable to calculate

**Abbreviations:** PPV, positive predictive value; NPV, negative predictive value; ESBL, extended-spectrum beta-lactamase; EB, Enterobacterales; BSI, bloodstream infection

**Supplemental Table 2. Predictive tool for ESBL-EB BSI among abdominal organ transplant recipients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Variable** | **aOR** | **95% CI** | ***P* value** | **Points** |
| **Colonization or infection with EB organisms in prior 12 months** | ESBL-EB organism isolated on prior culture | 44.46 | 16.50-119.81 | <0.01 | 3 |
| *E. coli* isolated on prior culture | 0.85 | 0.34-2.14 | 0.73 | -1 |
| EB organism isolated from prior urinary culture | 0.45 | 0.19-1.08 | 0.07 | -2 |
| **Antimicrobial exposures in prior 6 months** | Third-generation cephalosporin | 3.01 | 1.48-6.11 | <0.01 | 3 |
| **Severity of illness in prior 48 hours** | Mechanical ventilation | 2.41 | 1.09-5.31 | 0.03 | 2 |
| **Immuno-suppressive regimen** | Receipt of non-corticosteroid immunomodulator in prior 30 days1 | 1.08 | 0.61-1.91 | 0.80 | 6 |
| Corticosteroid-containing chronic immunosuppressive regimen2 | 1.53 | 0.86-2.70 | 0.15 | 1 |

1Receipt of any of the following agents in the 30 days preceding EB BSI: abatacept, anakinra, apremilast, azathioprine, cyclophosphamide, cyclosporine, denosumab, hydroxychloroquine, methotrexate, mycophenolate, rituximab, secukinumab, sulfasalazine, tocilizumab, tofacitinib, infliximab, adalimumab, certolizumab, golimumab, or etanercept

2Assessed at the time of EB BSI, including any corticosteroid dose

**Abbreviations:** ESBL, extended-spectrum beta-lactamase; EB, Enterobacterales; BSI, bloodstream infection;aOR, adjusted odds ratio; CI, confidence interval

**Supplemental Table 3. Predictive tool for ESBL-EB BSI among thoracic organ transplant recipients**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Variable** | **aOR** | **95% CI** | ***P* value** | **Points** |
| **Colonization or infection with EB organisms in prior 12 months** | ESBL-EB organism isolated on prior culture | 12.40 | 2.90-53.00 | <0.01 | 4 |
| *E. coli* isolated on prior culture | 0.54 | 0.14-2.14 | 0.38 | -4 |
| **Antimicrobial exposures in prior 6 months** | Cefepime | 4.21 | 1.23-14.40 | 0.02 | 2 |
| **Immuno-suppressive regimen** | Corticosteroid-containing chronic immunosuppressive regimen1 | 14.65 | 1.50-147.07 | 0.02 | 2 |
| **Demographics** | Age >60 years old | 1.05 | 0.98-1.13 | 0.18 | 1 |

1Assessed at the time of EB BSI, including any corticosteroid dose

**Abbreviations:** ESBL, extended-spectrum beta-lactamase; EB, Enterobacterales; BSI, bloodstream infection;aOR, adjusted odds ratio; CI, confidence interval