**Table S1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Predictor | Variables | Original AUC | Mean bias | STD bias | Corrected AUC |
| LR | PCR, Temperature, ALK, CRE, Heart rate | 0.79 | 0.01 | 0.03 | 0.78 |
| LR | PCR, Temperature, ALK, Heart rate | 0.82 | 0.01 | 0.03 | 0.82 |
| ANN | PCR, Temperature, CRE | 0.81 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK, CRE, Heart rate | 0.79 | 0.01 | 0.03 | 0.78 |
| LR | PCR, ALK, Heart rate | 0.87 | 0.00 | 0.02 | 0.87 |
| LR | PCR, Temperature, ALK | 0.84 | 0.00 | 0.03 | 0.83 |
| ANN | PCR, Temperature, tCO2 | 0.79 | 0.01 | 0.03 | 0.79 |
| LR | PCR, Temperature, CRE | 0.82 | 0.00 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK, Heart rate | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK | 0.83 | 0.01 | 0.03 | 0.83 |
| LR | PCR, Temperature, tCO2 | 0.80 | 0.00 | 0.03 | 0.80 |
| LR | PCR, Temperature, ALK, CRE | 0.81 | 0.01 | 0.02 | 0.80 |
| ANN | PCR, Temperature, ALK, CRE, tCO2 | 0.78 | 0.01 | 0.03 | 0.78 |
| ANN | PCR, Temperature, CRE, tCO2 | 0.82 | 0.00 | 0.03 | 0.82 |
| ANN | PCR, Temperature, ALK, CRE | 0.80 | 0.01 | 0.03 | 0.79 |
| SVM | PCR, Temperature, ALK | 0.83 | 0.01 | 0.03 | 0.82 |
| LR | PCR, Temperature, CRE, Heart rate | 0.85 | 0.01 | 0.02 | 0.84 |
| LR | PCR, CRE, Heart rate | 0.82 | 0.00 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK, tCO2 | 0.84 | 0.01 | 0.03 | 0.84 |
| LR | PCR, Temperature, tCO2, Heart rate | 0.85 | 0.01 | 0.02 | 0.84 |
| LR | PCR, Temperature, CRE, tCO2 | 0.82 | 0.01 | 0.03 | 0.82 |
| ANN | PCR, Temperature, CRE, Heart rate | 0.85 | 0.01 | 0.03 | 0.84 |
| ANN | PCR, ALK, Heart rate | 0.87 | 0.00 | 0.02 | 0.87 |
| LR | PCR, Temperature, ALK, CRE, tCO2 | 0.79 | 0.01 | 0.03 | 0.78 |
| LR | PCR, ALK, CRE, Heart rate | 0.81 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, CRE, tCO2, Heart rate | 0.80 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, Temperature, tCO2, Heart rate | 0.85 | 0.01 | 0.02 | 0.84 |
| ANN | PCR, ALK, Diarrhea | 0.90 | -0.00 | 0.02 | 0.90 |
| ANN | PCR, CRE, Diarrhea | 0.85 | 0.00 | 0.03 | 0.85 |
| ANN | PCR, Temperature, AST, ALK | 0.83 | 0.00 | 0.02 | 0.82 |
| ANN | PCR, ALK, CRE, Heart rate | 0.80 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, Temperature, AST | 0.81 | 0.00 | 0.03 | 0.81 |
| LR | PCR, Temperature, ALK, tCO2 | 0.84 | 0.00 | 0.02 | 0.84 |
| ANN | PCR, CRE, Heart rate | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, tCO2, Heart rate | 0.86 | 0.01 | 0.02 | 0.86 |
| ANN | PCR, Temperature, AST, CRE | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK, tCO2, Heart rate | 0.83 | 0.01 | 0.03 | 0.82 |
| LR | PCR, tCO2, Heart rate | 0.87 | 0.00 | 0.03 | 0.86 |
| LR | PCR, Temperature, AST, ALK | 0.83 | 0.01 | 0.03 | 0.82 |
| LR | PCR, ALK, Diarrhea | 0.90 | 0.00 | 0.02 | 0.90 |
| ANN | PCR, Temperature, ALK, Vomit | 0.81 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, ALK, Vomit | 0.80 | 0.00 | 0.03 | 0.80 |
| LR | PCR, Temperature, AST | 0.81 | 0.00 | 0.03 | 0.81 |
| ANN | PCR, Temperature, CRE, tCO2, Heart rate | 0.87 | 0.01 | 0.03 | 0.86 |
| SVM | PCR, Temperature, CRE | 0.82 | 0.01 | 0.02 | 0.82 |
| ANN | PCR, Temperature, CRE, Vomit | 0.83 | 0.01 | 0.03 | 0.82 |
| LR | PCR, Temperature, ALK, tCO2, Heart rate | 0.83 | 0.01 | 0.03 | 0.82 |
| SVM | PCR, ALK, Heart rate | 0.87 | -0.00 | 0.02 | 0.87 |
| LR | PCR, CRE, Diarrhea | 0.86 | 0.00 | 0.02 | 0.85 |
| ANN | PCR, ALK, Heart rate, Diarrhea | 0.90 | 0.00 | 0.02 | 0.90 |
| ANN | PCR, Temperature, ALK, CRE, tCO2, Heart rate | 0.80 | 0.01 | 0.03 | 0.79 |
| ANN | PCR, ALK, tCO2, Heart rate | 0.83 | 0.00 | 0.03 | 0.82 |
| LR | PCR, Temperature, ALK, CRE, tCO2, Heart rate | 0.80 | 0.01 | 0.03 | 0.79 |
| SVM | PCR, Temperature, ALK, CRE | 0.80 | 0.00 | 0.03 | 0.80 |
| LR | PCR, CRE, tCO2, Heart rate | 0.81 | 0.00 | 0.03 | 0.80 |
| ANN | PCR, ALK, Heart rate, Vomit | 0.83 | 0.00 | 0.03 | 0.83 |
| LR | PCR, Temperature, ALK, Vomit | 0.81 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, ALK, CRE, Heart rate, Diarrhea | 0.88 | 0.01 | 0.02 | 0.88 |
| ANN | PCR, CRE, Heart rate, Vomit | 0.85 | 0.00 | 0.03 | 0.85 |
| SVM | PCR, Temperature, tCO2 | 0.81 | 0.01 | 0.02 | 0.80 |
| ANN | PCR, CRE, Heart rate, Diarrhea | 0.89 | 0.01 | 0.02 | 0.88 |
| ANN | PCR, ALK, CRE, tCO2, Heart rate | 0.91 | 0.00 | 0.02 | 0.91 |
| LR | PCR, Temperature, CRE, tCO2, Heart rate | 0.87 | 0.01 | 0.02 | 0.86 |
| LR | PCR, Temperature, CRE, Vomit | 0.83 | 0.01 | 0.03 | 0.83 |
| ANN | PCR, Temperature, AST, ALK, CRE | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, CRE, Vomit | 0.84 | 0.01 | 0.03 | 0.83 |
| ANN | PCR, ALK, CRE, Vomit | 0.85 | 0.00 | 0.02 | 0.85 |
| LR | PCR, ALK, Heart rate, Diarrhea | 0.90 | 0.00 | 0.02 | 0.90 |
| LR | PCR, ALK, Vomit | 0.81 | 0.00 | 0.03 | 0.81 |
| ANN | PCR, Temperature, AST, tCO2 | 0.84 | 0.01 | 0.03 | 0.84 |
| ANN | PCR, Temperature, ALK, CRE, Vomit | 0.90 | 0.01 | 0.02 | 0.89 |
| SVM | PCR, CRE, Heart rate | 0.82 | 0.00 | 0.02 | 0.81 |
| LR | PCR, Temperature, AST, CRE | 0.82 | 0.01 | 0.03 | 0.81 |
| LR | PCR, ALK, tCO2, Heart rate | 0.83 | 0.00 | 0.02 | 0.83 |
| SVM | PCR, Temperature, CRE, tCO2 | 0.83 | 0.00 | 0.03 | 0.83 |
| ANN | PCR, Temperature, AST, ALK, CRE, tCO2 | 0.86 | 0.01 | 0.02 | 0.86 |
| ANN | PCR, Temperature, CRE, Diarrhea | 0.89 | 0.00 | 0.02 | 0.89 |
| LR | PCR, ALK, CRE, Heart rate, Diarrhea | 0.88 | 0.00 | 0.02 | 0.88 |
| ANN | PCR, Temperature, ALK, Heart rate, Vomit | 0.87 | 0.01 | 0.03 | 0.86 |
| ANN | PCR, Temperature, AST, ALK, tCO2 | 0.84 | 0.01 | 0.02 | 0.83 |
| SVM | PCR, Temperature, CRE, Heart rate | 0.85 | 0.01 | 0.03 | 0.84 |
| LR | PCR, CRE, Heart rate, Diarrhea | 0.89 | 0.01 | 0.02 | 0.89 |
| LR | PCR, ALK, Heart rate, Vomit | 0.83 | 0.01 | 0.03 | 0.82 |
| LR | PCR, Temperature, AST, ALK, CRE | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, ALK, CRE, Heart rate, Vomit | 0.91 | 0.01 | 0.02 | 0.91 |
| LR | PCR, ALK, CRE, tCO2, Heart rate | 0.90 | 0.01 | 0.02 | 0.90 |
| ANN | PCR, Temperature, AST, CRE, tCO2 | 0.86 | 0.00 | 0.02 | 0.86 |
| ANN | PCR, Temperature, AST, ALK, CRE, tCO2, Heart rate | 0.83 | 0.01 | 0.02 | 0.83 |
| LR | PCR, Temperature, CRE, Diarrhea, Weakness | 0.84 | 0.01 | 0.03 | 0.84 |
| LR | PCR, ALK, CRE, Vomit | 0.85 | 0.00 | 0.02 | 0.85 |
| ANN | PCR, ALK, CRE, Diarrhea | 0.88 | 0.01 | 0.02 | 0.87 |
| ANN | PCR, Temperature, CRE, Diarrhea, Weakness | 0.84 | 0.01 | 0.02 | 0.83 |
| SVM | PCR, CRE, Diarrhea | 0.87 | 0.00 | 0.02 | 0.86 |
| ANN | PCR, Temperature, ALK, Diarrhea | 0.86 | 0.01 | 0.03 | 0.85 |
| SVM | PCR, Temperature, CRE, Diarrhea, Weakness | 0.84 | 0.01 | 0.02 | 0.83 |
| ANN | PCR, Temperature, tCO2, Diarrhea | 0.91 | 0.00 | 0.02 | 0.91 |
| ANN | PCR, CRE, Diarrhea, Vomit | 0.81 | 0.01 | 0.03 | 0.81 |
| LR | PCR, CRE, Vomit | 0.84 | 0.00 | 0.02 | 0.84 |
| SVM | PCR, Temperature, ALK, CRE, tCO2 | 0.79 | 0.01 | 0.03 | 0.78 |
| LR | PCR, Vomit | 0.85 | 0.00 | 0.03 | 0.85 |
| ANN | PCR, Temperature, CRE, Heart rate, Vomit | 0.82 | 0.01 | 0.03 | 0.81 |
| SVM | PCR, Temperature, AST | 0.82 | 0.01 | 0.03 | 0.81 |
| LR | PCR, Temperature, AST, tCO2 | 0.86 | 0.01 | 0.02 | 0.85 |
| LR | PCR, Temperature, AST, ALK, CRE, tCO2, Heart rate | 0.84 | 0.01 | 0.03 | 0.82 |
| LR | PCR, Temperature, CRE, Diarrhea | 0.89 | 0.01 | 0.02 | 0.89 |
| LR | PCR, Temperature, ALK, Heart rate, Vomit | 0.87 | 0.01 | 0.02 | 0.86 |
| SVM | PCR, ALK, Diarrhea | 0.90 | 0.00 | 0.02 | 0.90 |
| ANN | PCR, ALK, Diarrhea, Vomit | 0.87 | 0.01 | 0.02 | 0.86 |
| ANN | PCR, tCO2, Diarrhea | 0.86 | 0.00 | 0.02 | 0.85 |
| ANN | PCR, AST, Diarrhea | 0.83 | 0.01 | 0.03 | 0.82 |
| ANN | PCR, tCO2, Heart rate, Diarrhea | 0.89 | 0.00 | 0.02 | 0.89 |
| LR | PCR, tCO2, Heart rate, Diarrhea | 0.89 | 0.00 | 0.02 | 0.89 |
| LR | PCR, Temperature, ALK, CRE, Vomit | 0.90 | 0.01 | 0.02 | 0.89 |
| LR | PCR, Temperature, AST, ALK, CRE, tCO2 | 0.87 | 0.01 | 0.02 | 0.86 |
| SVM | PCR, Temperature, ALK, Heart rate | 0.82 | 0.01 | 0.03 | 0.81 |
| LR | PCR, CRE, Heart rate, Vomit | 0.86 | 0.00 | 0.03 | 0.85 |
| SVM | PCR, tCO2, Heart rate | 0.87 | 0.01 | 0.02 | 0.86 |
| LR | PCR, tCO2, Diarrhea | 0.86 | 0.00 | 0.02 | 0.86 |
| SVM | PCR, Temperature, ALK, tCO2 | 0.84 | 0.01 | 0.02 | 0.84 |
| SVM | PCR, Temperature, AST, ALK | 0.83 | 0.01 | 0.03 | 0.82 |
| ANN | PCR, Temperature, ALK, CRE, Diarrhea | 0.88 | 0.01 | 0.03 | 0.87 |
| LR | PCR, ALK, CRE, Heart rate, Vomit | 0.91 | 0.01 | 0.01 | 0.90 |
| LR | PCR, Temperature, CRE, Weakness | 0.81 | 0.01 | 0.03 | 0.80 |
| ANN | PCR, Temperature, ALK, CRE, Diarrhea, Weakness | 0.87 | 0.01 | 0.03 | 0.86 |
| LR | PCR, ALK, Diarrhea, Vomit | 0.87 | 0.01 | 0.02 | 0.87 |
| LR | PCR, Temperature, ALK, CRE, Diarrhea, Weakness | 0.87 | 0.01 | 0.03 | 0.86 |
| SVM | PCR, ALK, CRE, Heart rate | 0.81 | 0.01 | 0.03 | 0.79 |
| SVM | PCR, Temperature, tCO2, Heart rate | 0.85 | 0.01 | 0.02 | 0.84 |
| LR | PCR, Temperature, AST, ALK, CRE, Heart rate, Diarrhea, Weakness | 0.88 | 0.02 | 0.02 | 0.86 |
| LR | PCR, Temperature, ALK, Diarrhea | 0.86 | 0.00 | 0.03 | 0.85 |
| ANN | PCR, Temperature, ALK, CRE, tCO2, Heart rate, Vomit | 0.90 | 0.01 | 0.02 | 0.89 |
| LR | PCR, Temperature, ALK, CRE, Heart rate, Diarrhea, Weakness, Vomit | 0.90 | 0.01 | 0.02 | 0.89 |
| ANN | PCR, Vomit | 0.85 | 0.00 | 0.03 | 0.85 |
| LR | PCR, Temperature, AST, CRE, tCO2 | 0.86 | 0.01 | 0.02 | 0.86 |
| ANN | PCR, Temperature, tCO2, Heart rate, Diarrhea | 0.82 | 0.01 | 0.03 | 0.81 |
| ANN | PCR, Temperature, ALK, CRE, tCO2, Heart rate, Diarrhea | 0.86 | 0.01 | 0.03 | 0.85 |
| LR | PCR, Temperature, tCO2, Diarrhea, Weakness | 0.90 | 0.00 | 0.02 | 0.89 |
| ANN | PCR, Temperature, CRE, tCO2, Heart rate, Diarrhea, Weakness | 0.90 | 0.01 | 0.02 | 0.89 |
| SVM | PCR, Temperature, AST, ALK, CRE | 0.83 | 0.02 | 0.03 | 0.81 |
| ANN | PCR, Temperature, tCO2, Heart rate, Weakness | 0.83 | 0.01 | 0.03 | 0.82 |
| ANN | PCR, Temperature, AST, ALK, CRE, Heart rate, Diarrhea, Weakness | 0.88 | 0.01 | 0.02 | 0.86 |
| ANN | PCR, Temperature, AST, ALK, CRE, tCO2, Diarrhea | 0.86 | 0.01 | 0.03 | 0.85 |
| ANN | PCR, Temperature, ALK, Diarrhea, Vomit | 0.89 | 0.01 | 0.02 | 0.88 |
| LR | PCR, Temperature, ALK, Weakness, Vomit | 0.88 | 0.01 | 0.02 | 0.87 |
| ANN | PCR, ALK, Heart rate, Diarrhea, Vomit | 0.89 | 0.00 | 0.02 | 0.89 |
| LR | PCR, CRE, Weakness | 0.82 | 0.00 | 0.03 | 0.82 |
| SVM | PCR, Temperature, AST, CRE | 0.82 | 0.01 | 0.02 | 0.81 |
| LR | PCR, Temperature, ALK, CRE, Diarrhea | 0.88 | 0.01 | 0.02 | 0.87 |
| LR | PCR, Temperature, CRE, Heart rate, Vomit | 0.83 | 0.01 | 0.03 | 0.81 |
| LR | PCR, Temperature, AST, ALK, tCO2 | 0.83 | 0.01 | 0.02 | 0.82 |
| ANN | PCR, Temperature, CRE, Weakness, Vomit | 0.86 | 0.01 | 0.02 | 0.85 |
| ANN | PCR, Temperature, CRE, Heart rate, Diarrhea | 0.87 | 0.01 | 0.03 | 0.87 |
| ANN | PCR, Temperature, tCO2, Vomit | 0.87 | 0.01 | 0.02 | 0.87 |
| LR | PCR, Temperature, ALK, CRE, tCO2, Heart rate, Diarrhea | 0.87 | 0.01 | 0.03 | 0.86 |
| LR | PCR, Temperature, tCO2, Diarrhea | 0.91 | 0.01 | 0.02 | 0.91 |
| LR | PCR, Temperature, tCO2, Weakness | 0.87 | 0.00 | 0.03 | 0.86 |