**Supplemental Digital Content**

**Figure Legend**

**Figure 1: ROC analysis to determine optimal cut-off for age**

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| --- |
| Optimal Cutpoints |

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| --- | --- | --- | --- | --- |
| **Criterion** | **Symbol** | **Cutpoint** | **Label** | **Value** |
| **Sens-Spec** | **=** | 0.029500 | 3.692 0.552 0.553 | .000709950 |

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| --- |
| Points labeled by: riskscore \_sens\_ \_spec\_ |

**Figure 2: ROC curve analysis determining the risk categories based on the risk score.**

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| --- |
| Optimal Cutpoints |

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| --- | --- | --- | --- | --- |
| **Criterion** | **Symbol** | **Cutpoint** | **Label** | **Value** |
| **Sens-Spec** | **=** | 0.026615 | 4 0.771 0.495 | 0.27619 |

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| Points labeled by: riskscore \_sens\_ \_spec\_ |

**Figure 3: Proportion of PRAE according to risk categories based on a risk cut-off score of >4**

**Table 1: Sensitivity, Specificity, Positive Predictive Value (PPV), and Negative Predictive Value (NPV) of the derivation and validation cohorts based on >4 as the cut-off points**

|  |  |  |
| --- | --- | --- |
| **Characteristic** | **Derivation Cohort** | **Validation Cohort** |
| Sensitivity | 77.61 | 76.22 |
| Specificity | 49.21 | 49.74 |
| PPV | 5.79 | 2.77 |
| NPV | 98.2 | 99.11 |

**Table 2a: Model performance for derivation cohort**

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| --- | --- | --- | --- | --- | --- |
| **Odds Ratio Estimates and Wald Confidence Intervals** | | | | |  |
| **Effect** | **Unit** | **Estimate** | **95% Confidence Limits** | | **P-value** |
| Risklvl Intermediate vs High | 1.0000 | 0.310 | 0.238 | 0.403 | <0.0001 |
| Risklvl Low vs High | 1.0000 | 0.121 | 0.030 | 0.491 | 0.003 |

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| --- | --- | --- | --- |
| **Association of Predicted Probabilities and Observed Responses** | | | |
| Percent Concordant | 38.9 | Somers' D | 0.272 |
| Percent Discordant | 11.6 | Gamma | 0.539 |
| Percent Tied | 49.5 | Tau-a | 0.020 |
| Pairs | 2789880 | c | 0.636 |

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| --- | --- | --- |
| **Hosmer and Lemeshow Goodness-of-Fit Test** | | |
| Chi-Square | DF | Pr > ChiSq |
| 0.0000 | 1 | 0.9994 |

**Table 2b: Model performance for validation cohort**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Odds Ratio Estimates and Wald Confidence Intervals** | | | | | |
| **Effect** | **Unit** | **Estimate** | **95% Confidence Limits** | | **P-value** |
| Risklvl Intermediate vs High | 1.0000 | 0.322 | 0.228 | 0.454 | <0.0001 |
| Risklvl Low vs High | 1.0000 | 0.167 | 0.023 | 1.200 | 0.07 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Association of Predicted Probabilities and Observed Responses** | | | |
| Percent Concordant | 38.4 | Somers' D | 0.262 |
| Percent Discordant | 12.2 | Gamma | 0.518 |
| Percent Tied | 49.4 | Tau-a | 0.009 |
| Pairs | 1821325 | c | 0.631 |

|  |  |  |
| --- | --- | --- |
| **Hosmer and Lemeshow Goodness-of-Fit Test** | | |
| Chi-Square | DF | Pr > ChiSq |
| 0.0000 | 1 | 1.0000 |