Appendix 4 (as supplied by authors) : Validation of Classification Performance of the Serious Adverse Event

| Score | Observed <br> Sensitivi ty (95\% CI) | ```Observed Specifici ty (95% CI)``` | $\begin{gathered} \hline \text { Observed } \\ \text { PLR } \\ (95 \% \text { CI) } \end{gathered}$ | $\begin{gathered} \hline \text { Observed } \\ \text { NLR } \\ (95 \% \quad C I) \end{gathered}$ | ```Bootstrap Sensitivi ty (95% CI)``` | Bootstrap <br> Specifici <br> ty <br> (95\% CI) | $\begin{gathered} \text { Bootstrap } \\ \text { PLR } \\ (95 \% \text { CI) } \end{gathered}$ | $\begin{gathered} \text { Bootstrap } \\ \text { NLR } \\ (95 \% \text { CI) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | $\begin{gathered} 1.00 \\ (0.93,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 0 \\ (0,0) \\ \hline \end{gathered}$ | $\begin{gathered} 1.00 \\ (1.00,1.00 \\ ) \end{gathered}$ | Not <br> Estimable | $\begin{gathered} 1.00 \\ (1.00,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 0 \\ (0,0) \end{gathered}$ | $\begin{gathered} 1.00 \\ (1.00,1.00) \end{gathered}$ | Not <br> Estimable |
| 1 | $\begin{gathered} 0.91 \\ (0.81,0.9 \\ 6) \end{gathered}$ | $\begin{gathered} 0.45 \\ (0.42,0.4 \\ 9) \end{gathered}$ | $\begin{gathered} 1.67 \\ (1.51,1.84 \\ ) \end{gathered}$ | $\begin{gathered} 0.20 \\ (0.09,0.4 \\ 2) \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.91,0.9 \\ 1) \end{gathered}$ | $\begin{gathered} 0.45 \\ (0.45,0.4 \\ 6) \end{gathered}$ | $\begin{gathered} 1.67 \\ (1.66,1.67) \end{gathered}$ | $\begin{gathered} 0.20 \\ (0.19,0.2 \\ 0) \end{gathered}$ |
| 2 | $\begin{gathered} 0.81 \\ (0.69,0.8 \\ 9) \end{gathered}$ | $\begin{gathered} 0.60 \\ (0.57,0.6 \\ 4) \end{gathered}$ | $\begin{gathered} 2.03 \\ (1.75,2.34 \\ ) \end{gathered}$ | $\begin{gathered} 0.32 \\ (0.20,0.5 \\ 2) \end{gathered}$ | $\begin{gathered} 0.81 \\ (0.80,0.8 \\ 1) \\ \hline \end{gathered}$ | $\begin{gathered} 0.60 \\ (0.59,0.6 \\ 0) \end{gathered}$ | $\begin{gathered} 2.02 \\ (2.01,2.03) \end{gathered}$ | $\begin{gathered} 0.32 \\ (0.31,0.3 \\ 3) \end{gathered}$ |
| 3 | $\begin{gathered} 0.60 \\ (0.48,0.7 \\ 2) \end{gathered}$ | $\begin{gathered} 0.84 \\ (0.81,0.8 \\ 6) \end{gathered}$ | $\begin{gathered} 3.66 \\ (2.85,4.69 \\ ) \end{gathered}$ | $\begin{gathered} 0.48 \\ (0.35,0.6 \\ 4) \\ \hline \end{gathered}$ | $\begin{gathered} 0.60 \\ (0.59,0.6 \\ 1) \end{gathered}$ | $\begin{gathered} 0.84 \\ (0.83,0.8 \\ 4) \end{gathered}$ | $\begin{gathered} 3.67 \\ (3.64,3.70) \end{gathered}$ | $\begin{gathered} 0.48 \\ (0.47,0.4 \\ 8) \end{gathered}$ |
| 4 | $\begin{gathered} 0.52 \\ (0.39,0.6 \\ 4) \end{gathered}$ | $\begin{gathered} 0.90 \\ (0.87,0.9 \\ 2) \end{gathered}$ | $\begin{gathered} 4.99 \\ (3.66,6.81 \\ ) \end{gathered}$ | $\begin{gathered} 0.54 \\ (0.42,0.6 \\ 9) \end{gathered}$ | $\begin{gathered} 0.51 \\ (0.51,0.5 \\ 3) \end{gathered}$ | $\begin{gathered} 0.89 \\ (0.89,0.9 \\ 0) \end{gathered}$ | $\begin{gathered} 5.04 \\ (4.99,5.09) \end{gathered}$ | $\begin{gathered} 0.54 \\ (0.53,0.5 \\ 5) \end{gathered}$ |
| 5 | $\begin{gathered} 0.25 \\ (0.16,0.3 \\ 7) \end{gathered}$ | $\begin{gathered} 0.97 \\ (0.95,0.9 \\ 8) \end{gathered}$ | $\begin{gathered} 8.08 \\ (4.57,14.2 \\ 9) \end{gathered}$ | $\begin{gathered} 0.77 \\ (0.67,0.8 \\ 9) \end{gathered}$ | $\begin{gathered} 0.25 \\ (0.24,0.2 \\ 5) \\ \hline \end{gathered}$ | $\begin{gathered} 0.97 \\ (0.96,0.9 \\ 7) \end{gathered}$ | $\begin{gathered} \hline 8.39 \\ (8.23,8.55) \end{gathered}$ | $\begin{gathered} 0.78 \\ (0.77,0.7 \\ 8) \end{gathered}$ |
| 6 | $\begin{gathered} 0.19 \\ (0.11,0.3 \\ 1) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.98,0.9 \\ 9) \end{gathered}$ | $\begin{gathered} 16.48 \\ (7.31,37.1 \\ 6) \end{gathered}$ | $\begin{gathered} 0.82 \\ (0.73,0.9 \\ 2) \end{gathered}$ | $\begin{gathered} 0.19 \\ (0.18,0.1 \\ 9) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.98,0.9 \\ 9) \end{gathered}$ | $\begin{gathered} 18.69 \\ (18.06,19.3 \\ 3) \\ \hline \end{gathered}$ | $\begin{gathered} 0.82 \\ (0.81,0.8 \\ 2) \end{gathered}$ |
| 7 | $\begin{gathered} 0.07 \\ (0.03,0.1 \\ 7) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.99,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 19.02 \\ (4.65,77.8 \\ 8) \end{gathered}$ | $\begin{gathered} 0.93 \\ (0.87,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 0.07 \\ (0.07,0.0 \\ 8) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.99,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 22.91 \\ (21.71,24.1 \\ 1) \\ \hline \end{gathered}$ | $\begin{gathered} 0.93 \\ (0.92,0.9 \\ 3) \end{gathered}$ |
| 8 | $\begin{gathered} 0.06 \\ (0.02,0.1 \\ 5) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.99,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 45.65 \\ (5.17,402.7 \\ 0) \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.89,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 0.06 \\ (0.05,0.0 \\ 6) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.99,1.0 \\ 0) \end{gathered}$ | $\begin{gathered} 33.86 \\ (32.21,35.51 \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.93,0.9 \\ 4) \end{gathered}$ |
| 10 | $\begin{gathered} 0.03 \\ (0.01,0.1 \\ 1) \end{gathered}$ | $\begin{gathered} 1.00 \\ (0.99,1.0 \\ 0) \end{gathered}$ | Not Estimable | $\begin{gathered} 0.97 \\ (0.93,1.0 \\ 1) \end{gathered}$ | $\begin{gathered} 0.03 \\ (0.03,0.0 \\ 4) \end{gathered}$ | $\begin{gathered} 1.00 \\ (1.00,1.0 \\ 0) \end{gathered}$ | Not <br> Estimable | $\begin{gathered} 0.97 \\ (0.96,0.9 \\ 7) \end{gathered}$ |
| AUC | $\begin{gathered} 0.79 \\ (0.74,0.8 \\ 5) \end{gathered}$ |  |  |  | $\begin{gathered} 0.79 \\ (0.79,0.8 \\ 0) \end{gathered}$ |  |  |  |
| HL test P | 0.665 |  |  |  | 0.256 |  |  |  |

AUC=area under ROC; HL=Hosmer Lemeshow; PLR=Positive likelihood ratio; NLR=Negative likelihood ratio

Appendix to: Stiell IG, Clement CM, Aaron SD, et al. Clinical characteristics associated with adverse events in patients with exacerbation of chronic obstructive pulmonary disease: a prospective cohort study.

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