

FIGURE LEGENDS IN SUPPLEMENTAL MATERIAL

Figure S1 – The frequency distribution across a range of relevant reference device s_pO_2 for i) data pooled from all test oximeters (top left), ii) data for each of the individual test oximeters (other plots)

Figure S2 – Bland-Altman plots are a standard visualisation of the agreement between two diagnostic measurements. The vertical axes show bias (difference between test oximeters and reference oximeter measurements), and the horizontal axes show the average of two measures. The blue lines denote the mean bias, the red lines show ± 1.96 standard deviations from the mean, such that 95% of the points fall between these lines. Pulse oximeter measurements have a precision of 0 decimal places, so many points are overlain in these plots. Greyscale intensity is used to represent the number of overlain points, darker markers show many overlain points, and lighter markers show fewer overlain points. The top left plot shows the results where data is pooled for all test oximeters. Data for each of the individual test oximeters are shown in the other plots.

Table S3 – Five tables summarising the effect of six different subject characteristics on test device performance in terms of i) measurement bias evaluated by multiple regression analysis (column 1), ii) false positive evaluated by logistic regression analysis (column 2) and iii) false negative logistic regression analysis (column 3). The two sub-columns under “Bias” present the p-values (left) and coefficients (right) from each regression analysis. The sub-columns under “false positives” and “false negatives” show the p-value (left) and odds ratio (right) from the binary logistic regression analyses. Significant values are highlighted in bold and the magnitude of coefficient indicates the size of the effect. The p-values that are statistically significant are highlighted in bold) and the 95% confidence intervals are shown in parentheses below the coefficient and odds ratio values.