

EVALUATION OF PAPER

Validation of the A&D wrist-cuff UB-511 (UB-512) device for self-measurement of blood pressure.

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In Table 1 the total number of participants adds to just 84. Furthermore there is only one column denoting this suggesting that the same subjects fitted the same ranges for both SBP and DBP in each case. i.e. Eight subjects SBP < 90 mmHg and DBP < 60 mmHg; 24 had BP 90-129/60-79 mmHg etc. This table is not correct.

Table 4 states that the percentage of measurements within 5, 10 and 15 mmHg accuracy were 61%, 84% and 98% respectively (Observer 1 the closer observer). By expanding and colouring the plot, a count is possible and this yields $104 \leq 5$ mmHg (cyan), a further $65 \leq 10$ mmHg (olive), a further $36 \leq 15$ mmHg (blue) and $22 > 15$ mmHg (green). This totals 227 points leaving 28 (255 – 227) superimposed ones. Assuming an even distribution, the percentages work out as 46%, 62% and 71% - a “D” grade. Even allowing for all of these to be in the “5 mmHg” category we have the following: $132 \leq 5$ mmHg (52%), a further $197 \leq 10$ mmHg (77%), a further $233 \leq 15$ mmHg (91%). This is a “B” but only just. In any case, they are vastly different from those reported.

These discrepancies require explanation and raise questions about the result.

