

BLOOD PRESSURE FROM THE OPTICAL AKTi!A BRACELET: A 1-MONTH VALIDATION STUDY

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CITATION

Vybornova, Annaa; Polychronopoulou, Eriettab; Wurzner-Ghajarzadeh, Arlèneb; Fallet, Sibyllea; Sola, Josepa; Wuerzner, Gregoireb Blood pressure from the optical Aktiia Bracelet: a 1-month validation study using an extended ISO81060-2 protocol adapted for a cuffless wrist device, Blood Pressure Monitoring: August 2021 - Volume 26 - Issue 4 - p 305-311

OBJECTIVE

The objective of this study was to compare the systolic (S) and diastolic (D) blood pressure (BP) estimations from the Aktiia optical device at the wrist against double auscultation over the period of one month, with subjects measured in multiple body positions.

STUDY POPULATION

n = 86

study participants

43/43

male/female

21-63 (38)

Age: Range (Mean)

18 - 41 (24)

BMI: Range (Mean)

1-2: **62%**

3-4: **20%**

5-6: **18%**

Skin Colour (Fitzpatrick Scale)

RESULTS

Aktiia vs. Double Auscultation BP

0.46 ± 7.74 mm Hg

SBP

0.39 ± 6.86 mm Hg

DBP

Benchmark (ISO81060-2)

< 5 + 8 mmHg

Mean difference + Standard deviation

CONCLUSION

After initialization and during one month, the overall accuracy of Aktiia Bracelet satisfied validation criteria 1 and 2 of ISO81060-2 in the sitting position. The Aktiia Bracelet can be recommended for BP measurement in the adult population.