Validation of the A&D BP UA-651 device for home blood pressure measurement according to the European Society of Hypertension International Protocol revision 2010.

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The objective of this study was to determine the accuracy of the A&D BP UA-651 device for home blood pressure (BP) measurement according to the International Protocol of the European Society of Hypertension. Device evaluation was carried out in 33 patients. The mean age of the patients was 48.3 ± 15.5 years, the mean systolic BP was 138.3 ± 24.9 mmHg (range 90-180), the mean diastolic BP was 88.3 ± 13.8 mmHg (range 60-108), and the mean arm circumference was 28.6 ± 3.4 cm (range 23-36). The protocol requirements were followed precisely. The device passed all requirements, fulfilling the standards of the protocol. On average, the device underestimated the systolic BP by 0.4 ± 4.4 mmHg and diastolic BP by 1.3 ± 3.5 mmHg. The device-observer discrepancies were unrelated to patients' clinical characteristics. These data show that the A&D BP UA-651 device fulfilled the requirements for validation by the International Protocol and can be recommended for clinical use in the adult population.

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