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Validation of the Microlife WatchBP O3 device for clinic, home, and ambulatory blood pressure measurement, according to the International Protocol.

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To determine the accuracy of the Microlife WatchBP O3 blood pressure measuring device tested according to the requirements of the International Protocol of the European Society of Hypertension. The WatchBP O3 is designed to provide clinic, ambulatory, and self blood pressure (BP) measurements. Device evaluation was performed in 33 participants with a mean +/- standard deviation age of 56.1+/-20.7 years (range 30-95 years). Their systolic BP (SBP) was 144.7+/-24.1 mmHg (range 90-180 mmHg), diastolic BP (DBP) was 86.8+/-18.3 mmHg (range 50-120 mmHg), and arm circumference was 28.1+/-2.9 cm (range 22.0-34.0 cm). Blood pressure measurements were performed in the sitting position. The WatchBP O3 passed all three phases of the European Society of Hypertension protocol for SBP and DBP. Mean blood pressure differences for the WatchBP O3 (device observer) were -1.7+/-6.9 mmHg for SBP and -1.1+/-4.3 mmHg for DBP. In conclusion, these results indicate that the Microlife WatchBP O3 monitor can be recommended for clinical use in the adult population.

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