

Validation of the professional device for blood pressure measurement Microlife WatchBP Office in adults and children according to the American National Standards Institute/ Association for the Advancement of Medical Instrumentation/ International Organization for Standardization standard

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Objective To assess the accuracy of the professional oscillometric blood pressure (BP) monitor Microlife WatchBP Office in adults and children according to the American National Standards Institute/Association for the Advancement of Medical Instrumentation/International Organization for Standardization (ANSI/AAMI/ISO) 81060-2:2013 standard.

Methods Adults and children (aged 3–12 years) were recruited to fulfil the age, sex, BP and cuff distribution criteria of the ANSI/AAMI/ISO standard using the same-arm sequential BP measurement method. Three cuffs of the test device were used for arm circumferences of 14–22, 22–32 and 32–42 cm.

Results A total of 115 participants were recruited and 88 were included in the analysis (51 adults and 37 children). For criterion 1, the mean \pm SD of the differences between the test device and reference BP was $-1.0 \pm 7.0/ -4.7 \pm 5.4$ mmHg (systolic/diastolic). For criterion 2, the SD of the averaged BP differences between the test device and

reference per participant was 5.15/4.77 mmHg (systolic/diastolic).

Conclusion The professional Microlife WatchBP Office BP monitor fulfilled the requirements of the ANSI/AAMI/ISO validation standard for adults and children and can be recommended for clinical use. *Blood Press Monit* 00:000–000 Copyright © 2017 Wolters Kluwer Health, Inc. All rights reserved.

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