
OBJECTIVE: This study aimed to evaluate the accuracy of the automated oscillometric upper arm blood pressure monitor KD-5915 (ANDON Health, Tianjin, China) for home blood pressure monitoring according to the International Protocol. METHOD: Systolic and diastolic blood pressures were sequentially measured in 33 adult Chinese individuals using a mercury sphygmomanometer (two observers) and the KD-5915 device (one supervisor). Ninety-nine pairs of comparisons were obtained from 15 participants in phase 1 and the remaining 18 participants in phase 2 of the validation study. Data analysis was performed using the ESHIP Analyzer. RESULTS: The KD-5915 device successfully passed phase 1 of the validation study with a number of absolute differences between the device and observers within 5, 10, and 15 mmHg for at least 27 of 45, 34 of 45, and 43 of 45 measurements, respectively. The device also achieved the targets for phase 2.1, with 66 of 99, 81 of 99, and 95 of 99 device-observer differences within 5, 10, and 15 mmHg, respectively, for systolic blood pressure, and with 79 of 99, 95 of 99, and 99 of 99 differences within 5, 10, and 15 mmHg, respectively, for diastolic blood pressure. In phase 2.2, 23, and 27 participants had at least two of the three device-observer differences within 5 mmHg (required Z22) for systolic blood pressure and diastolic blood pressure, respectively. CONCLUSION: The ANDON upper arm blood pressure monitor KD-5915 has passed the International Protocol requirements, and hence can be recommended for use at home in adults.