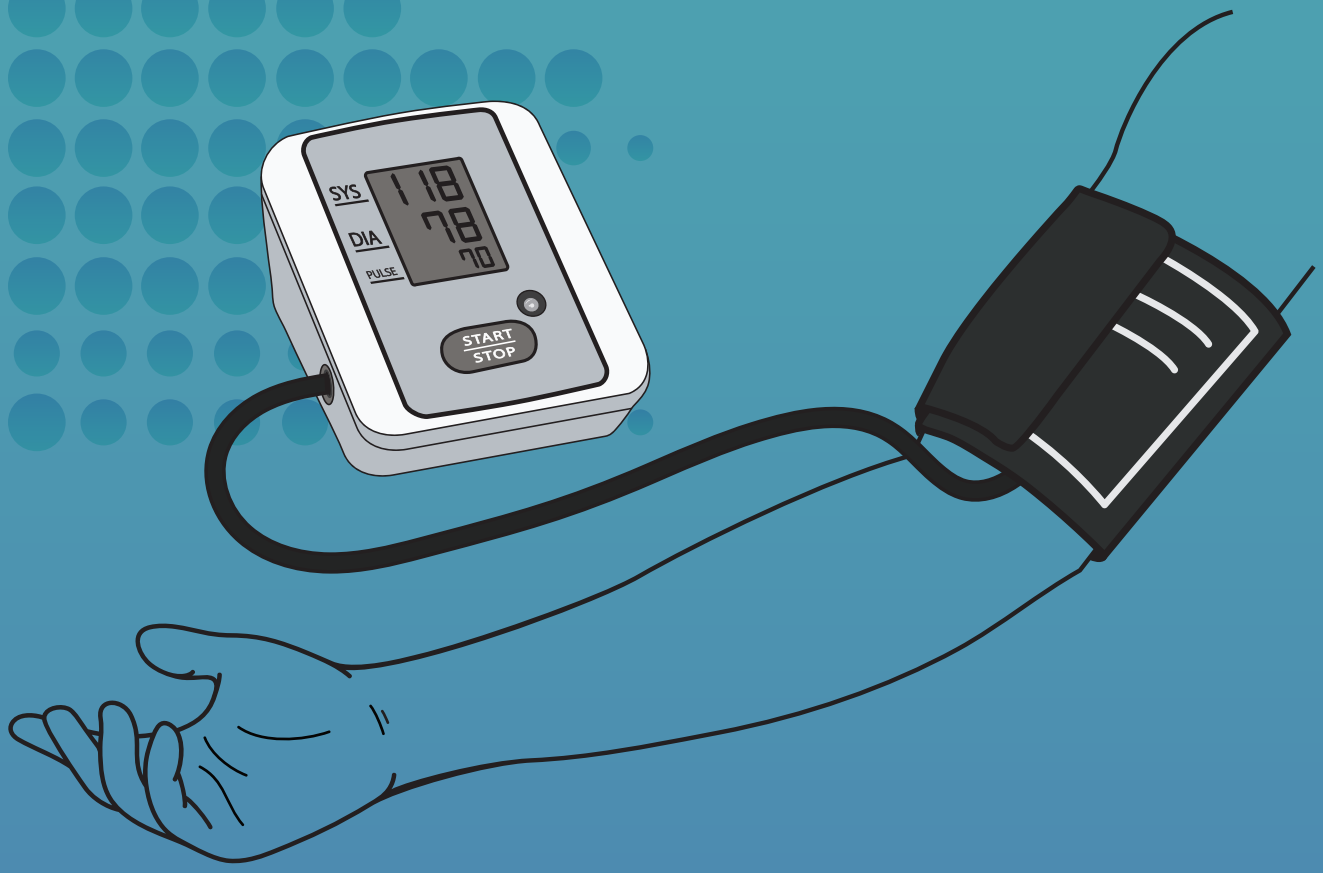
World Health Organization

WHO TECHNICAL SPECIFICATIONS FOR AUTOMATED NON-INVASIVE BLOOD PRESSURE MEASURING DEVICES WITH CUFF

WHO MEDICAL DEVICE TECHNICAL SERIES



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WHO technical specifications for automated non-invasive blood pressure measuring devices with cuff

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The document updates WHO's 2005 guidance on blood pressure measuring devices (BPMDs) *(1)*. It also responds to concern about the lack of accurate, good-quality devices, especially in low-and middle-income countries (LMIC), which was expressed at a workshop on blood pressure (BP) measurement during the 4th WHO Global Forum on Medical Devices held in India on 13–15 December 2018.

Laura Patricia López Meneses, a WHO consultant, drafted the document, which was discussed at an expert consultation on technical specifications for automated non-invasive BPMDs with cuff, that took place in Geneva, Switzerland, from 25–26 June 2019. The meeting further discussed the scope and content of this publication and steps for implementation. The document then underwent external review. The technical experts who participated in the consultation, and provided technical review to the document, were: Aletta E Schutte (North-West University, South African Medical Research Council, South Africa; University of New South Wales; The George Institute for Global Health, Australia; International Society of Hypertension), Tammy Brady (Johns Hopkins University, USA), Margaret Farrell (Resolve to Save Lives an initiative of Vital Strategies, USA), Norm Campbell (University of Calgary, Canada), Mulugeta Mideksa (Biomedical Engineer, Ethiopia), Marc Jaffe (Resolve to Save Lives an initiative of Vital Strategies and Kaiser Permanente, USA), Oommen John (The George Institute for Global Health, India), Mohammad Ameel (WHO Collaborating Centre for Priority Medical Devices and Health Technology Policy, Ministry of Health and Family Welfare, India) and Laura Alejandra Velez (WHO Operations Support and Logistics). All participants declared any conflicts of interest, which were reviewed by the WHO compliance unit.

After the expert consultation, a second draft was prepared with input from WHO consultants: George Schmidt, Eunice Lorenzo and Jennifer de Francesco, with organizational support and compilation by Valeria Montant, WHO intern.

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The publication was edited by Elisabeth Heseltine. Designed by L'IV Com Sàrl.

Acronyms and abbreviations

ANSI	American National Standards Institute
BP	Blood Pressure
BPMD	Blood Pressure Measuring Device
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
LED	light-emitting diode
LMIC	low- and middle-income countries
MAP	Mean Arterial Pressure
UNDP	United Nations Development Programme
WHO	World Health Organization