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WHO releases technical specifications for BP measuring devices

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Accurate blood pressure measurement is essential to identify and properly manage individuals with hypertension



Hypertension is the leading modifiable risk factor for serious diseases such as cardiovascular disease (stroke and ischemic heart disease), pre-eclampsia and eclampsia (a major killer of pregnant women and a cause of poor fetal growth and stillbirth) and chronic kidney disease. Globally, over one billion people have hypertension and the problem is compounded in India with one in three adults having hypertension.

The risk of complications and deaths due to COVID-19 are significantly higher among those with comorbid conditions such as cardiovascular conditions and diabetes. Accurate blood pressure measurement is essential to identify and properly manage individuals with hypertension, many who are hypertensive are not aware of their condition hence labelled a silent killer. Hypertension is a significant marker of other diseases like chronic kidney disease and diabetes, responsible for co-morbidities that is the cause of death among several COVID-19 patients worldwide. Lack of access to accurate, affordable BP devices is a significant barrier to proper medical care, particularly in low-resource settings.

There is also a frequent concern about the accuracy of automated BP devices that have not been validated which is more worrisome given the fact that people with significant co-morbidities at high risk of COVD-19 must accurately monitor their BP at home. According to studies, 70 per cent of readings from home blood pressure monitors are unacceptably inaccurate, which could have serious implications for people relying on them to make informed health decisions. Recently, there has been a move to regulate the digital thermometer industry which are now required to come with quality assurance certificates.

The World Health Organization (WHO) has now developed technical specifications for Blood Pressure measuring devices, which was released worldwide. The document updates WHO's 2005 guidance on blood pressure measuring devices (BPMDs). It also responds to concern about the lack of accurate, good-quality devices, especially in low-and middle-income countries (LMIC) through technical consultation and expert review.

The focus of the publication is on automated non-invasive blood pressure measuring devices with cuff, including characteristics, regulatory requirements and standards, calibration as well as maintenance. It also provides guidance on procurement, decontamination and decommissioning. Additional elements on accurate measurement of BP and training for personnel are included. Hopefully, these specifications can now guide the industry as well as the consumers to select and use the right digital blood pressure equipment for at home monitoring.

Oommen John from The George Institute India, who was involved in the development of these WHO technical specifications, said "Given the COVID-19 situation these specifications are extremely timely as many with cardiovascular and other comorbidities are required to self-monitor at home.

Health workers, clinicians and the general population are likely to benefit from this resource, as it may improve their understanding of BP devices and their capacity to measure BP accurately.