

# Ambiguities in the Guidelines for the Management of Arterial Hypertension: Indian Perspective with a Call for Global Harmonization

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**Abstract** Many medical professional societies have formulated guidelines to treat hypertension, but there existed differences with respect to diagnosis, blood pressure (BP) targets, pharmacotherapy of hypertension, and grades of evidence. A MEDLINE search for hypertension guidelines was performed to compare Indian guidelines for hypertension (IGH) with these guidelines. A majority of the guidelines had consensus on the cutoff value (140/90 mmHg, recorded twice) to diagnose hypertension. The Joint National Committee 8 (JNC 8), IGH, Japanese Society of hypertension (JSH), Canadian Hypertension Education Program (CHEP), and American Society of Hypertension/International Society of Hypertension (ASH/ISH) guidelines provide a higher BP target for the elderly hypertensive populations, while the National Institute for Health and Care Excellence (NICE) and European Society of Hypertension (ESH) guidelines provided a lower BP target for the elderly patients. However, a meta-analysis showed benefits of having a systolic BP target of <130 mmHg for all patients. Treatment of hypertension according to JNC 8, NICE, and ASH/ISH guidelines varies

among the black and the non-black population which recommended thiazide or calcium channel blockers for the black population. There is no special mention of pharmacotherapy or BP targets for the South Asian population in various guidelines including IGH despite evidence of higher risk of hypertension-associated complications in this population. It is suggested that all the available guidelines should be harmonized with highest level of evidence available to minimize ambiguities associated with management of hypertension.

**Keywords** Hypertension · Guidelines · Blood pressure

## Introduction

Hypertension is a common condition which can be easily screened for, diagnosed early, and treated appropriately at primary health care level to prevent its complications, viz., myocardial infarction, stroke, renal failure, and death [1–3]. To reduce the burden of these complications, clinicians always need scientific evidences on treatment thresholds, goals/targets, and pharmacotherapy drawn from randomized controlled trials.

Many medical professional societies have their own guidelines to treat hypertension, but others follow the treatment recommendations published in the standard textbooks of medicine or elsewhere in journals. The World Health Organization (WHO) reported 90 professional societies of hypertension affiliated to the International Society of Hypertension from 77 countries out of which 21 societies used national, 3 used regional, and 17 used international guidelines, alone or as supplementary guidelines [4]. The survey also reported significant differences in these guidelines with respect to diagnosis, blood pressure (BP) targets, and pharmacotherapy of hypertension [4]. There is paucity of literature examining these

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This article is part of the Topical Collection on *Guidelines/Clinical Trials/Meta-Analysis*

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