Indian guidelines on hypertension (IGH)-III - 2013
Reprint of Indian guidelines on hypertension-III – 2013. JAPI. 2013 Feb;61(2) suppl.

Preamble
The epidemiological models consist of system that describes the dynamics in each class. For example, the rate of change of susceptible individuals is a major contributor to cardiovascular morbidity and mortality in India and worldwide. In view of our special geographical and climatic conditions, ethnic background, dietary habits, literacy levels and socio-economic variables, there could be some areas where significant differences need to be addressed. With this in mind, the Association of Physicians of India (API), Cardiological Society of India (CSI), the Indian College of Physicians (ICP), and the Hypertension Society of India (HSI) developed the “FIRST INDIAN GUIDELINES FOR THE MANAGEMENT OF HYPERTENSION - 2001.”

The second Indian guidelines were published in 2007. Ever since, significant new data on epidemiology of hypertension has emerged globally and so also, from India. Also, many large randomized multi-centric trials have changed practice guidelines and approach to the management of hypertension in the last five years. It was, therefore, felt necessary to update the Indian guidelines to align them with the current best evidence. Hence, the third Indian Guidelines on Hypertension (I.G.H.)-III are being published now in 2013 under the aegis of API.

These guidelines have been prepared as a reference for treating physicians. The current level of practice patterns based on evidence-based medicine have been presented. The intention is not to cover the topic of hypertension in totality but to give useful information based on literature after extensive reference to Medline search and other latest guidelines [JNC VII (2003), ESH/ESC (2007), NICE-BHS (2011), WHO-ISH (2003), ACC/AHA Expert Consensus Document on Hypertension in the Elderly (2011), KDIGO Clinical Practice Guideline for the Management of Blood Pressure in Chronic Kidney Disease (2012)] available to date. These guidelines do not include hypertension in children and adolescents.

The primary aim of these guidelines is to offer balanced information to guide clinicians, rather than rigid rules that would constrain their judgment about the management of individual adult patients, who will differ in their personal, medical, social, economic, ethnic and clinical characteristics.

Methodology
In consonance with the first and second guidelines, a revised format was evolved by the Core committee which was then reviewed by 300 physicians and specialists from across the country whose inputs have been incorporated. Like the previous guidelines, this document has also been studied, reviewed, and endorsed by the Cardiological Society of India (CSI), Hypertension Society of India (HSI), Indian College of Physicians (ICP), Indian Society of Nephrology (ISN), Research Society for Study of Diabetes in India (RSSDI) and Indian Academy of Diabetes (IAD).

We hope these guidelines will help the practising physicians to address a very important public health problem. Treatment of essential hypertension is a life-long commitment and should not be stopped even when the blood pressure is stabilised without consulting the physician.

The core committee recognizes that the responsible physician’s judgment remains paramount for individual adult patients.

Definition
There is a continuous relationship between the level of blood pressure and the risk of complications. Starting at 115/75 mmHg, CVD risk doubles with each increment of 20/10 mm Hg throughout the blood pressure range.1,2 All definitions of hypertension issued by various international authorities are arbitrary. There is some evidence that the risk of cardiovascular events in Asian Indians is higher at relatively lower levels of blood pressure (BP). In the absence of definite data from India, it would be prudent to maintain the same definition proposed in the first Indian guidelines on management of hypertension (2001).3

Hypertension in adults age 18 years and older is defined as systolic blood pressure (SBP) of 140 mm Hg or greater and/or diastolic blood pressure (DBP) of 90 mm Hg or greater or any level of blood pressure more than 135/85 mm Hg.
pressure in patients taking antihypertensive medication.1,2

**Classification**

The positive linear relationship between SBP and DBP and cardiovascular risk has long been recognized. This relationship is strong, continuous, graded, consistent, independent, predictive and etiologically significant for those with and without coronary heart disease.4,5 For persons over age 50, SBP is more important than DBP as a CVD risk factor.7 SBP is more difficult to control than DBP,8 SBP needs to be as aggressively controlled as DBP. Therefore, although classification of adult blood pressure is somewhat arbitrary, it is useful for clinicians who make treatment decisions based on a constellation of factors along with the actual level of blood pressure.

Table 1 provides a classification of blood pressure for adults (age 18 and older).39 This classification is for individuals who are not taking antihypertensive medication and who have no acute illness and is based on the average of two or more blood pressure readings taken at least on two subsequent occasions, one to three weeks apart, after the initial screening.

When SBP and DBP fall into different categories, the higher category should be selected to classify the individual’s blood pressure.

The term ‘Prehypertension’ introduced in the JNC VII guidelines includes a wide range of BP from normal to high normal. It is felt that the term “prehypertension”2 is more likely to create anxiety in a large subset of population. Hence, we do not recommend the use of the term “pre-hypertension.”9 There is emerging evidence that the high normal group needs to be treated sometimes, in the presence of family history of hypertension and concomitant diseases like diabetes (TOD).10

**Editor’s Note:**

The intention behind reprinting this article was that the editorial team recognises the importance of this work that is done and feels its need to be disseminated among academicians, researchers post graduates and practitioners alike. We wanted to draw the attention of the reader towards the existence of such a criteria relevant to the Indian population. For further reading on Global and National Epidemiology of Hypertension, Methods of measurement of blood pressure, Evaluation of a person for hypertension, Management of Hypertension, Secondary Hypertension, Complications of Hypertension and Hypertension in Special situations we would suggest to refer to the supplement of 61(2) issue of JAPI 2013.

**Table 1: Classification of Hypertension**

<table>
<thead>
<tr>
<th>Category</th>
<th>Systolic (mm Hg)</th>
<th>Diastolic (mm Hg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal***</td>
<td>&lt;120</td>
<td>and &lt;80</td>
</tr>
<tr>
<td>Normal</td>
<td>&lt;130</td>
<td>and &lt;85</td>
</tr>
<tr>
<td>High-normal</td>
<td>130-139</td>
<td>or 85-89</td>
</tr>
<tr>
<td>Hypertension***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage 1</td>
<td>140-159</td>
<td>or 90-99</td>
</tr>
<tr>
<td>Stage 2</td>
<td>160-179</td>
<td>or 100-109</td>
</tr>
<tr>
<td>Stage 3</td>
<td>&gt;180</td>
<td>or &gt;110</td>
</tr>
<tr>
<td>Isolated systolic HTN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 1</td>
<td>140-159</td>
<td>and &lt;90</td>
</tr>
<tr>
<td>Grade 2</td>
<td>&gt;160</td>
<td>and &lt;90</td>
</tr>
</tbody>
</table>

*Not taking antihypertensive drugs and not acutely ill. In addition to classifying stages of hypertension on the basis of average blood pressure levels, clinicians should specify presence or absence of target organ disease and additional risk factors.

**Based on the average of two or more blood pressure readings taken at least on two visits after an initial screening.

References


