Hypertension: Emergencies and Urgencies

Key Highlights from the Recommended Guideline

- Patients with blood pressures (BP) > 180/120 mm Hg need immediate aggressive treatment if they have impending or progressive end-organ damage.
- Those without end-organ damage need to adjust or reinstate their regimens, but do not need immediate aggressive treatment.

Scope: Health professionals involved in the care of patients with adults who present with blood pressures > 180/120 mm Hg

How should I manage patients who present with a hypertensive emergency — i.e. BP > 180/120 mm Hg and impending or progressive end-organ damage (e.g. neurologic, cardiovascular, eclampsia)?

- Reduce BP immediately with intravenous drugs, and monitor BP continuously in an intensive care setting. [Level of Evidence: Not stated]

- Consider using the following drugs: [Level of Evidence: Not stated]
  - Vasodilators: sodium nitroprusside, nicardipine, fenoldopam mesylate, nitroglycerin, enalaprilat, hydralazine
  - Adrenergic blockers: labetalol, esmolol, phentolamine

- Do not use short-acting nifedipine (lowers BP fast enough to provoke ischemia). [Level of Evidence: Not stated]

- Aim for 25% reduction of the mean arterial blood pressure within minutes to 1 hour
  - Then if the patient is stable, reduce BP to 160/100-110 mm Hg over 2-6 hours and normalize within 24-48 hours. [Level of Evidence: Not stated]
  - Exceptions include stroke (unless BP is lowered to allow thrombolytic agents to be used) and dissecting aortic aneurysm (target systolic BP is < 100 mm Hg if possible). [Level of Evidence: Not stated]
How should I manage patients who present with a hypertensive urgency — i.e. BP > 180/120 mm Hg without impending or progressive end-organ damage (e.g. patient with headache, shortness or breath or epistaxis)?

- For patients with hypertensive urgencies [Level of Evidence: Not stated]
  - Optimize (or restart) their current treatment regimens
  - Consider oral short-acting agents (e.g. captopril, labetalol, clonidine)
  - Do not treat aggressively with intravenous drugs or oral loading
  - Ensure that the patient has a follow-up appointment within a few days

Levels of Evidence

The levels of evidence used to grade the recommendations in this guideline are as follows:

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>Meta-analysis; use of statistical methods to combine the results from clinical trials</td>
</tr>
<tr>
<td>RA</td>
<td>Randomized controlled trials; also known as experimental studies</td>
</tr>
<tr>
<td>RE</td>
<td>Retrospective analyses; also known as case-control studies</td>
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<tr>
<td>F</td>
<td>Prospective study; also known as cohort studies, including historical or prospective follow-up studies</td>
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<tr>
<td>X</td>
<td>Cross-sectional surveys; also known as prevalence studies</td>
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<tr>
<td>PR</td>
<td>Previous review or position statements</td>
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<tr>
<td>C</td>
<td>Clinical interventions (nonrandomized)</td>
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</tbody>
</table>

The above recommendations were derived from the following GAC endorsed guideline:


Rating (out of 4): ★★★☆☆

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