

**Harvard Medical School Department of  
Continuing Education and the Renal Division  
of Brigham and Women's Hospital**



***Nephrology Rounds***  
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**Controversies in Blood Pressure**

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**Objectives**

This issue of *Nephrology Rounds* will help readers to be aware that:

- Lowering blood pressure (BP) has a profound effect on cardiovascular (CV) morbidity and mortality; even 2 mm Hg lower usual systolic BP may be associated with a reduction in mortality.
- Among individuals with BP-related disease, whether certain antihypertensive drugs have beneficial effects on CV outcomes beyond their capacity to lower BP has not been conclusively demonstrated.
- Among individuals with chronic kidney disease (CKD), the evidence suggests that angiotensin blockade does indeed have beneficial effects on preventing renal outcomes independent of BP control.
- Current BP guidelines for nondiabetics that specify a target BP of <140/90 mm Hg may not be sufficiently aggressive. Individuals with known coronary artery disease, known cerebrovascular disease, and those at high CV risk, may benefit from more intensive control.
- In the United States, less than one-third of individuals with BP-related disease are adequately controlled.

**Questions:**

1. In the AASK trial, angiotensin blockade led to a lower risk of renal endpoints compared to other drugs; in contrast, more intense compared to less intense BP control did not reduce the risk of renal endpoints.

True  False

2. Our current definition of hypertension at 140/90 mmHg is supported by the fact that the risk of CV mortality is relatively flat below that BP, but rises sharply when BPs exceed 140/90 mmHg.

True  False

3. The ALLHAT trial, which was terminated early because of a benefit with chlorthalidone, documented that chlorthalidone was superior to lisinopril in preventing the primary outcome of myocardial infarction and fatal coronary heart disease.

True  False

4. In the ANBP-2 trial, enalapril was associated with a statistically significant 91% increase in the risk of fatal-stroke.

True  False

5. Among 15 large-scale drug vs. drug comparisons, only the LIFE trial showed a significant difference in the primary endpoint between the two treatment arms when a standard time-to-first-event analysis is used.  
True  False
6. Because the evidence soundly supports our current BP targets and because the majority of individuals reach these targets, determining whether certain drugs have beneficial effects beyond BP control is of paramount public health importance.  
True  False
7. The CAMELOT and EUROPA studies support the concept that, among individuals with coronary artery disease who have already achieved the current target BP of <140/90 mm Hg, even more intense BP reduction results in fewer CV events.  
True  False
8. The PROGRESS study supports the concept that, among individuals with prior stroke who have already achieved the current target BP of <140/90 mmHg, even more intense BP reduction results in fewer CV events.  
True  False
9. Among individuals with non-diabetic CKD who have achieved a BP <140/90 mm Hg, the current evidence clearly shows that further efforts to achieve the target of <130/80 mm Hg results in better outcomes.  
True  False
10. The NORDIL study demonstrated that diltiazem was superior to diuretics and beta-blockers in preventing stroke, despite achieving less favorable BP control.  
True  False

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