

*Hypertension in HIV and Aging

- Target BP for older patients with HIV and co-morbidities should be below 140/90
- Target systolic blood pressure should be below 150 mm Hg in patients susceptible to hypotension
- Treatment of hypertension should generally follow JNC 8 guidelines
- In patients with CKD, HIV and hypertension, use of an angiotensin converting enzyme inhibitor should be first-line treatment for hypertension

As reviewed in the original monograph, a growing body of evidence indicated that older persons with hypertension benefit from treatment, but, suggested that the therapeutic target should be a systolic pressure below 150, in contrast to the recommendation that systolic pressure be reduced below 140 in younger persons. In large part this difference in recommendation grew out of the recognition that older persons were more susceptible to orthostatic hypotension, changes in kidney function, and other side effects when attempts were made to adjust drug doses to achieve target goals. The recently released guidelines for the management of hypertension in adults (JNC8) (James et al, 2013) confirms this recommendation in individuals over the age of 60. However, for all age groups with diabetes or non-diabetic kidney disease, BP goals should be below 140/90. There are no specific studies that address treatment guidelines for individuals with HIV or older individuals with HIV; however, given the complex co-morbidity (diabetes, chronic kidney disease) that often exists in this population, the recommended target goal will likely be below 140/90.

Recommendations regarding the use of specific agents are unchanged, and the details are outlined in the JNC8 guidelines (James et al, 2013). As noted by the JNC8

report, guidelines are not a substitute for careful clinical judgment, particularly in complex patients with competing risks. Target goals may not be achieved in individuals that develop complications of treatment.

As discussed above, the presence of CKD in individuals with hypertension poses additional challenges in management, and has important implications for progression of CKD. Evidence that the use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers provide renoprotective benefits beyond lowering of blood pressure, supports arguments that they be considered as first line choices in the treatment of hypertension in HIV-infected individuals with CKD. As discussed in the original monograph, the use of these agents may also be effective in older individuals traditionally thought to have low renin states.

Sympathetic innervation of the kidneys plays a major role in the pathogenesis of hypertension through modulation of glomerular filtration rate, sodium handling, and renin secretion. Clinical trials are currently being conducted in which bilateral, afferent and efferent renal nerves are ablated using radiofrequency-based systems. The initial results of safety, efficacy, and duration of response are promising. All studies have been limited to

individuals in whom secondary causes of hypertension have been excluded, and who fail to respond to standard therapeutic approaches. Limited data suggest that end-organ damage from hypertension may be arrested or improve after renal nerve ablation. No current studies have addressed the particular role in older individuals or those with HIV; yet, physicians caring for complex, and sometimes difficult to manage patients should be aware of emerging technologies. Several consensus reports about renal nerve ablation have been recently published (Gulati, 2013; Palmer, 2013; Schlaich, 2013; Thorp, 2013).

References

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