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Letters to the Editor

Reply to Spence—White Coat Hypertension: What Does It Mean and What Should We Do Until We Are Sure?

We thank Spence for his thoughtful editorial "Dilemmas in Diagnosing and Managing Hypertension: Is White Coat Hypertension Benign?".[1] We are grateful for his support for our 2 major goals, which are the replacement of manual auscultatory BP measurement with electronic oscillometric measurement and the early identification of white coat hypertension. For an expanded version of this letter with more extensive referencing, please see the Supplementary Material.

We agree with Spence's concerns regarding masked hypertension. The issue of masked hypertension was not yet reviewed by our subcommittee but will be addressed in the coming year. His comments on pseudohypertension, pseudonormotension, and cuff artifact are interesting but outside the scope of our review. His main criticism of our recommendations is that WCH is not a benign condition, and therefore patients with WCH should be treated as if they are hypertensive. As we wrote in our review, there is no evidence from randomized controlled trials to support the pharmacologic treatment of subjects with WCH.

Debate and discussion of the recommendations is always welcome; however, in this case, we would respectfully disagree with Spence regarding the need for drug treatment in WCH. CHEP has taken the approach that WCH may not be entirely benign and recommends annual follow-up for individuals with elevated screening BP levels who are ultimately found to be normotensive outside the white coat setting. In the meantime, patients should receive health behaviour optimization counselling—which if followed could prevent future BP increases. Monitoring for progression to hypertension at yearly intervals mitigates risk because antihypertensive drugs can be instituted at the appropriate time.

Even if we accept the premise that WCH increases risk, we need to question the degree of risk increase and whether it warrants drug therapy. After all, antihypertensive drug treatment is not innocuous, in terms of both risks and costs. In the Stergiou meta-analysis, which Spence cites as evidence to support antihypertensive drug treatment for WCH, we can calculate from Table 2 that the absolute risk increase for cardiovascular events in individuals with WCH (compared with normotension) over a median of 8.3 years was 4% (9.2%-5.2%).[2] If we assume that antihypertensive drug therapy reduces events by 20% over this time period,[3] then we will achieve an absolute risk reduction of 0.8% (4% × 0.2). This translates into a number needed to treat (NNT) of 125 over 8.3 years or 1000 per year. A total of 125 patients would have to be treated over an 8.3-year period or 1000 patients in a 1-year period to prevent 1 event. Patients and physicians are unlikely to consider this very large NNT worthy of drug therapy.[4]

CHEP is not alone in making these recommendations. NICE in the UK did an extensive review in 2011 of the clinical evidence and recommended that all patients suspected of being hypertensive must be assessed further with ABPM before finalizing the diagnosis so that pharmacotherapy can be avoided in patients with WCH. Other organizations have made similar recommendations. We do not feel that a recommendation to treat WCH is warranted at this time but will continue to monitor the published evidence and reassess accordingly.

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Disclosures

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References

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Supplementary Material

To access the supplementary material accompanying this article, visit the online version of the *Canadian Journal of Cardiology* at www.onlinecjc.ca and at http://dx.doi.org/10.1016/j.cjca.2015.04.006.

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